

The Debate on Probable Opinions in the Scholastic Tradition

by

Rudolf Schuessler

Manuscript

**Published in Brill's Studies in Intellectual History 302
Leiden 2019**

Please, quote the published book!

Contents

Acknowledgments.....	7
Introduction.....	8
Innovations in the early modern era	14
Plurality and pluralism	17
Modern approaches to the ‘use of opinions’: social epistemology, testimony, and others	19
Sources, genres, and interpretations	21
Chapter preview	24
Chapter 1: Medieval Antecedents.....	31
1. Medieval scholastic attitudes to the variety of opinions	32
2. Knowledge, faith/conviction (fides), and opinion in the Middle Ages	40
3. Probability as standard for the acceptability of opinions	47
3.1 The endoxon and probable opinion	47
3.2 Both-sided probability and greater or smaller probability	51
3.3 Endoxical probability and authority.....	53
4. ‘Medieval Tutorism’	57
5. A medieval pluralism of opinions	67
6. Conclusion.....	70
Chapter 2: The Road to Probabilism – A New Doctrine on the Use of Opinions.....	72
1. From the late fifteenth to the late sixteenth century	73
1.1 Trends on use of opinions in early modern scholastic thought.....	75
1.2 Other trends with a possible impact on probability and the use of opinions.....	79
1.3 Melchor Cano (1509–1560).....	85
2. Probabilism	91
2.1 Is probabilism irrational or inconsistent?	93
2.2 Uses of probabilism	96
2.3 Epistemological and moral justifications of probabilism	105

3. Discussion and conclusion	114
Chapter 3: Probabilism and Anti-Probabilism – Interlocked Lifecycles....	120
1. 1577–1620: The rise of probabilism	122
2. 1620–1656: Probabilism as dominant mainstream	125
2.1 The 1640s: First stirrings of opposition to probabilism and response of probabilists.....	129
2.2 ‘Laxism’ and its critics	132
2.3 On the widening of the scholastic pluralism of opinions	136
3. 1656–1700: Probabilism under fire. The rise of anti-probabilism. Probabilism’s defenses. The epistemological debate unfolds.	139
3.1 Anti-probabilism: Key claims	144
3.2 Probabilists respond: 1656–1678.....	149
3.3 Probabilism 1656–1678. Sympathy for modern science and a focus on epistemology	153
3.4 1670–1700: ‘Civil war’ among the Jesuits.....	156
4. 1700–1773: More debate, new developments, and the geography of persistence	160
5. 1773–present: Living on in Catholic moral theology.....	167
Chapter 4: The New Dual Notion of Probability and the Demise of the <i>Endoxon</i>	169
1. The new dual concept of probability	171
2. Maryks’ claim of the Jesuit origins of dual probability	175
3. Ciceronian influences?	184
4. The heyday of the (unrefined) dual concept of probability	187
5. Intrinsic and extrinsic probability	190
6. Leaving Aristotle without saying goodbye	194
7. Conclusion.....	203
Chapter 5: Selection Criteria, Common Opinion, and Ordinary Persons.	206
1. Selection criteria for authors and opinions	207
1.1 The ‘checklists’ of Konrad Summenhart (ca. 1450–1502) and Martín de Azpilcueta (1493–1586).....	208
1.2 Juan Azor’s (1535–1603) list of scholastic classics	216
2. Sets of criteria from the seventeenth century	220

3. Common opinion	225
4. Ordinary persons and non-experts (illiterati, idiotae)	230
4.1 Women	236
5. Conclusion.....	239
 Chapter 6: Stand-Alone Authority and Majorities as Guide to Truth	242
1. Aquinas on following one’s teacher	244
2. Stand-alone authority in probabilism	246
3. Anti-probabilism: Opponents of stand-alone authority.....	256
4. Numerical thresholds of extrinsic probability	262
5. The early modern philosophical avant-garde on stand-alone authority	265
6. Epistemic majoritarianism: scholastic and modern.....	268
6.1 Digression: Epistemic democracy	276
7. Conclusion.....	277
 Chapter 7: Ancient and Modern Opinions – Which to Prefer?	283
1. Antiqui and moderni in scholastic thought.....	285
2. Probabilism as vector of modernization	293
3. Caramuel and the moderns	301
4. Anti-probabilist backlash.....	306
5. The querelle des anciens et des modernes: Parallels and influence....	316
6. Conclusion.....	320
 Chapter 8: The Great Debate on Probable Opinions (1656–1700).....	323
1. New conceptions of probable opinion and probability	326
2. Kinds of Probability.....	336
2.1 Speculative and practical probability.....	336
2.2 Probability in itself (quoad se) and for us (quoad nos); subjective and objective probability	339
2.3 Probability and probabilism: direct or indirect/reflexive	343
3. Key assumptions of anti-probabilism	344
3.1 Bianchi, Mercori, Fagnani (and some non-scholastics)	348
3.2 Miguel de Elizalde (1617–1678)	354
3.3 Tirso Gonzalez de Santalla (1624 –1705)	359

4. Conclusion.....	366
Chapter 9: Delimiting the Space of the Reasonable – The Challenge of Probable Probability and Slight Probability.....	
1. The debate on slight and probable probability	370
2. An argument of infinite regress.....	385
3. The spectre of skepticism	388
4. Caramuel and probable probability.....	392
5. Conclusion.....	400
Chapter 10: Believing What We Want – A New Doxastic Voluntarism ..	
1. Scholastic doxastic voluntarism before the seventeenth century	404
1.1 Digression: The modern debate on doxastic voluntarism	409
2. Probabilist doxastic voluntarism after Bianchi.....	411
3. Mature probabilist doxastic voluntarism: Anthony Terill’s approach	417
3.1 Question 8: Assent to equally probable propositions.....	420
3.2 Question 9: Assent to a less probable opinion.....	430
3.3 Question 10: The reasonableness of assent to a less probable opinion	432
4. Terill further considered.....	437
5. Conclusion.....	443
Chapter 11: Assessing Probabilism – Between Liberty and Tutelage	
1. Modern views on probabilism: Liberty, tutelage, extrinsicism.....	447
2. The perspective of normative theory	453
2.1 Probabilism as a liberty-favoring doctrine	454
2.2 The duties of a confessor: Absolution against his own moral views	458
2.3 Extrinsicism	469
3. The perspective of practice and the historical perspective.....	474
3.1 Obedience to orders and to authorities	475
3.2 The spectre of the Counter-Reformation	477
3.3 Probabilism and the language of liberty	482
4. Conclusion.....	484

Chapter 12: The Scholastic Background of Modern Probability	487
1. Gambling problems and interpretations of probability	489
1.1 The art of gambling and the ‘problem of points’	490
1.2 Modern interpretations of probability	494
2. Caramuel’s contribution	497
3. A new scholastic frequentism	502
4. Scholastics on aleatory contracts and expected value	517
5. Other developments.....	523
6. Why did a mathematical theory of probability emerge in the middle of the seventeenth century?	525
References	529
Sources.....	529
Secondary literature	545
Index	575

Dedication

For Brunhilde, Fritz, Michael – and Iana.

Acknowledgments

This work was generously funded by an Opus Magnum Grant of the Volkswagen Foundation for the years 2015–2017. Let me also thank Johanna Brumberg and Vera Szoellosi-Brenig at the VW Foundation, who deserve special mention for their active support and commitment in helping me finalize this project.

Over the years during which this book was first conceptualized and subsequently came to fruition, many persons provided feedback at conferences or in seminars. I extend my gratitude to them all. For more extensive inputs, I am grateful to Harald Braun, Petr Dvorak, Nicolas Faucher, Daniel Heider, Jean-Pascal Gay, Robert Pasnau, Dominik Perler, Nicole Reinhardt, Jacob Schmutz, Daniel Schwartz – and two anonymous BRILL reviewers. Of course, none of them is responsible for how I ultimately dealt with their comments.

Significant help came from librarians at: the Jesuit Archives in Rome (ARSI), Biblioteca Brera, Biblioteca Corsiniana, Bibliothek der Hochschule St. Georgen (Frankfurt), The Cathedral Library of Toledo, Württembergische Landesbibliothek.

Thanks also goes to Niki Rodousakis, who revised the English text of this book, Sabrina Scharndke, who helped with the index, and to Arjan van Dijk and Ivo Romein at BRILL for their efficient handling of the project.

Finally, I would like to express my sincere appreciation to my partner Iana Kouris for all the years of love and support I received from her during the gestation of this project. Fortunately, I do not need to apologize for the long working hours I invested in this project – after all, hers are not any shorter.

Introduction

This book investigates the rules and norms with which disagreement and a sprawling plurality of opinions were managed from the twelfth to the eighteenth centuries. It is often assumed that mutual respect between disagreeing equals and the investigation of the moral and epistemological underpinnings of disagreement are a very recent phenomenon.¹ However, if we slightly adjust the terminology, we find that these concerns are hardly new. Since the Middle Ages, disagreements between philosophers, lawyers, medical doctors, and theologians were often conceived as antagonism between the opinions (*opinionones*) they held. In this context, the Latin term *opinio* roughly defined a belief whose truth was somewhat uncertain (for a more precise definition, see Chapter 1). The uncertainty of opinions was to some extent compensated by a quality that was ascribed to learned opinions. They were usually deemed probable (*probabilis*), which implied that they could be legitimately maintained by competent reasoners in disagreements. The medieval approach to disagreement had significant implications not only for academic debates, but also for the ecclesiastical, political, and economic governance of medieval societies. Moreover, an intense ‘debate on probable opinions’ in the seventeenth century sparked extensive investigations into the moral and epistemological foundations of disagreement between competent reasoners. This debate will occupy center stage here since it offers the best gateway for studying how disagreements of opinion were dealt with before the modern age.

Opinions rose to prominence because neither the practical governance of societies nor the intellectual endeavors of premodern academics could rely on indubitable (or at least uncontroversial) beliefs alone. Evident knowledge based on natural reasoning was difficult to come by, especially with respect to

¹See Frances and Matheson (2018) in the *Stanford Encyclopedia of Philosophy*: “the epistemology of disagreement is a mere infant. While the discussion of disagreement isn’t altogether absent from the history of philosophy, philosophers didn’t start, as a group, thinking about the topic in a rigorous and detailed way until the 21st century”.

issues involving human agency (for instance, the practical sides of politics, economics, morality).² Truths of faith were another matter. The Christian Church (Churches after the Reformation) postulated truths of faith which all believers had to endorse. Yet truths of faith alone could not address the countless questions medieval universities had to contend with or the many burning issues of practical agency in Christian societies. Any centralized process of decision-making would have been extremely overburdened with the task of determining a single religiously correct answer (a truth of faith) to all relevant questions and issues. The result, in fact, was that many diverging probable answers to these questions and issues were provided by learned authors. Authoritative decisions of the Church(es) did not necessarily reduce the resulting diversity of opinions, something all types of ‘users’ of opinions had to cope with it. As a user of an opinion, I designate a person who adopts an opinion as his or her own or who bases his or her actions on the assumed truth of an opinion.

The term ‘probable’ (*probabilis*), as employed before the seventeenth century, should not be confused with modern notions of probability but should instead be understood on Aristotelian grounds, the most famous of which was the *endoxon* (see Chapter 1). An *endoxon* is a sentence held true by all persons, most persons, or learned persons in a reference group.³ A probable opinion in this sense is a commonly held opinion or an acceptable or reputable opinion. In some contexts, the best translation is ‘plausible opinion’ since the term *probabilis* also indicates a prima facie justification to hold a sentence true. No single translation seems to represent all shades the meaning *opinio probabilis* can assume in the scholastic tradition. I therefore generally use ‘probable’ for *probabilis*, with the caveat that it should not be confused with modern numerical probability.

The acceptance of an author’s opinion as probable had important normative implications. (Note that an opinion conflicting with a truth of faith would not have been considered probable). An opinion that was accepted as probable could prima facie legitimately be held true by all who knew or had learned of its probability. Moreover, it could prima facie legitimately be ‘followed’ (*sequi*), that is, used as a premise for action. Probable opinions could therefore prima facie legitimately be used to deal with all the many open

²This was already recognized by Aristotle (1984), *Nicomachean Ethics*, 1098a26, whom many medieval authors followed in this respect.

³Aristotle (1984), *Topics*, 100b20. For the translation of *sapientes* as learned persons, see Chapter 1.

questions for which the Church had not prescribed a binding answer. ‘Prima facie’ here signifies ‘unless the Church intervened and prohibited an opinion’.⁴ Yet even in that case, the opinion’s former probability protected its follower in the confessional or in inquisitorial trials. Medieval Christianity promulgated an elaborate ethics of following (*sequi*) or choosing (*eligere*) opinions, and agents who complied with its rules were in this respect assumed to be blameless and free of sin.⁵ Thus, following a recognizably probable opinion incurred protection against reproach and persecution, given that the persecutors adhered to the rules.

It is noteworthy that this was also the case in controversies and with respect to opinions on which learned authors disagreed. In debates between learned authors, both sides were usually considered to hold probable opinions, unless one side could convincingly be refuted, which rarely happened. References to learned authors reveal that a certain quality assumption existed concerning the adversarial sides’ argumentation and weighing of reasons. Ancient philosophers, the Fathers of the Church, and medieval academics were typically accepted as the originators of probable opinions, while ordinary people were not, unless there was overwhelming agreement on the truth of an opinion. With regard to controversial opinions and with very few exceptions, only revered voices from antiquity or more recent (i.e. medieval or early modern) university-trained voices could convey probability to an opinion. We will follow established practice here and identify as scholastics those academics (such as Aquinas, Duns Scotus, or Ockham) who reasoned in the style taught at medieval universities.⁶ Scholastics were not the only but certainly the major contributors of controversial opinions considered probable in the Middle Ages, especially in

⁴There were some additional concerns, such as the reliability of theological opinions (see Chapter 1), but the concern was mainly about the reliability of probable opinions.

⁵Many modern epistemologists decline to speak of choosing or a choice of opinions since in their view, opinions as some form of inner beliefs cannot be chosen (denial of doxastic voluntarism). It is therefore important to emphasize that opinions as publicized statements (e.g. legal opinions) can at least be chosen as premises for action. Moreover, scholastic authors usually attributed a greater role than modern epistemologists to the will in the formation of beliefs. This issue will be discussed at length in Chapter 10.

⁶Scholastic thought is an intellectual paradigm that originated at medieval universities. It followed a logic-based, sober style of reasoning, was presented in an international academic language (Latin), and built on Christian theology and ancient, mainly Aristotelian, philosophy. For characterizations of scholastic thought, see Leinsle (2010); Schönberger (1991) and Chapter 2 for further references. ‘Scholastic’ only became a name for a tradition of thought and a specific style of reasoning in the sixteenth century (see Quinto 2001). Before then, *scholasticus* often simply meant ‘schoolteacher’.

philosophy, science, law, medicine, and theology. Moreover, scholastic authors for the most part developed the regulatory framework for dealing with probable opinions. In this book I will therefore focus on the regulation and use of probable opinions in the scholastic tradition. Humanist authors were also, of course, users of probable opinions, but they were hardly involved in developing the norms for their use. Finally, it should not be forgotten that the views of humanists were often not accepted as being on equal footing in the debates covered here, especially if the author lacked an academic degree or did not analyze problems in the perspicuous argumentative style of scholastics.

Scholastic thought is often saddled with a predilection for obscure or irrelevant questions, such as the number of angels able to cohabit on a pinpoint. Less polemically, it is deemed to be too preoccupied with the outer reaches of metaphysics and epistemology. I do not see why this would be problematic. However, since this book (inter alia) wants to show that the scholastic ways of dealing with probable opinions was of great significance for the governance of medieval and early modern societies, I will mainly refer to questions of some practical import. Scholastics not only pushed theoretical philosophy to its most arcane reaches, they were also crucially involved in analyzing and trying to solve applied normative problems of political, ecclesiastical, economic, social, and moral agency. Given the difficulty (amounting to a near impossibility) of arriving at a single, indisputably correct answer to most problems of practical agency by rational analysis, scholastic consultants usually provided probable opinions. Moreover, different consultants often reached different conclusions, so that their probable opinions clashed.

This fact did not elude medieval scholars. The existence of a plurality, variety, or diversity of alternative opinions (*varietas opinionum* or *diversitas opinionum*) in many domains of discourse had been explicitly acknowledged by scholastic authors since at least the thirteenth century. Henry of Ghent (~1217–1293), for instance, wrote an influential account of the considerations that ought to guide competent and less competent reasoners in choosing from a plurality of opinions (*electio* or *delectus opinionum*). Since he addressed the opinions' originators as 'doctors', Henry referred to a plurality of probable opinions. Moreover, his rules left considerable room for a competent agent's own weighing of reasons (see Chapter 1). The existence of such a set of rules, which evolved and was modified in scholastic discourse, is worth our

attention, not least because these rules were not imposed from above by Papal decree. They originated from a community of specialized academics who reflected on ways to rationally and morally (i.e. without sinning) deal with mutual disagreements. The medieval Church let them proceed without stifling intervention, probably because the community of scholastics came close to an agreement on rules for following probable opinions, which was acceptable to the hierarchy of the Church (largely staffed by scholastic academics itself). The upshot is that the development of medieval scholastic discourse was to a large extent determined by practical and discursive duties and entitlements for using probable opinions.⁷ Papal interdicts only occasionally intervened in this system of normative regulation (with local content-specific corrections), without, however, generally disrupting its functioning.

The scholastic system of debate and discursive competition between probable opinions helped medieval Christian societies evolve dynamically. Since cliché has it that premodern societies were institutionally inert, an example may help to prove this point. Important changes in the regulation of economic conduct from the fourteenth to the sixteenth century relied on the possibility of first upholding moral minority opinions against received opinions, then establishing them as widely shared opinions, and finally achieving explicit endorsement or acquiescence by the Church.⁸ Insurance contracts thereby became a legitimate instrument of risk sharing, low-interest micro credits to the poor were rendered acceptable, and the general ban against interest-bearing loans (i.e. the ban on usury) was increasingly loopholed. The first step towards accepting these new economic instruments was typically a defense by one or a few notable moral theologians, while other moral theologians either stuck to their traditional rejection of innovations or rejected them for some other reasons. That is, the new economic instruments were initially controversial among scholastic theologians or lawyers who specialized in the moral regulation of business. All sides in this process proffered probable opinions. The established rules for dealing with a plurality of probable opinions legitimized the siding with any notable group of consultants on business morality. Thus, merchants could choose to follow

⁷These duties and entitlements can be regarded as inchoate forms of Habermasian discursive rights, which have much deeper roots in European intellectual history than the assumption of their emergence in the Enlightenment era acknowledges.

⁸Recent research has shown that the sequence of institutional innovations that led to modern capitalist societies reach much further back into the Middle Ages than formerly assumed (see, e.g. Luiten van Zanden 2009). For the medieval origins of insurance contracts, one of the most important institutional foundations of modern economies, see Ceccarelli (2001).

business ethicists whose opinion appealed most to them, given that they considered this opinion to be more likely true than any counter-opinion. Conservative merchants were free to refrain from morally dubious business proposals, while more innovative merchants were protected in the ‘court of conscience’, as it was called at the time, by the probable opinions of notable business ethicists. Complying with the rules of scholastic disagreement management, they could buy insurance, offer micro-credits, or charge interest on loans with a clear conscience, even though all these activities were morally and theologically controversial. It did not matter in this respect whether the opponents of such actions were in the majority or relied on specific authorities, such as, e.g. Aquinas. Popes or councils of the Church could, of course, intervene and foreclose the use of new financial instruments, but they often—prudently?—did not, and let the evolution of economic moral views unfold in line with a debate among trained business ethicists. In many cases, the mentioned changes in the governance of the economy represented important steps towards strengthening ‘the market’ as a coordinating instrument for economic exchange. This documents that the pluralistic tendencies inherent in scholastic thought played an important role for the development of European societies towards modern market societies (whether you like this development or not), even if they apparently were not applied to religion or natural sciences with the same flexibility.

What has been presented so far reveals that a plurality of competing probable opinions had already been accepted and was consciously being dealt with in the (scholastic) Middle Ages. This plurality was regulated by rules and entitlements concerning the use of probable opinions, allowing specialized academics to stand by their opinions. Non-specialists could profit from the accepted plurality of specialist opinions by following a learned author of their choice. Whoever obeyed the respective rules was excused from error and sin. Nothing perhaps documents this better than regulations urging confessors to respect the probable opinions of penitents (see Chapter 11). Up to the sixteenth century, influential handbooks for confessors advised them to absolve penitents who followed probable opinions, even if the confessor was skeptical about the respective opinion’s truth. In early seventeenth-century Catholic moral theology, a penitent’s opinion became even better protected. It was widely maintained at that time that a confessor ought to accept any penitent’s opinion that was considered permissible by some notable theologians, even if this opinion contradicted what the confessor himself

considered to be right and good. Given the broad variety of differing opinions among moral theologians about appropriate conduct, the regulation to accept any opinion that was established in this pluralistic field was essentially an instruction to honor an acknowledged plurality of opinions.

The case of the penitent and disagreeing confessor brings us to the early modern era and indicates that the scholastic rules on the use of probable opinions evolved over time. In fact, the bulk of this book deals with developments of the early modern era, since the most intensive scholastic discussions on the use of probable opinions occurred during this period. In the seventeenth century, a huge scholastic debate on probable opinions spawned a wealth of new claims, arguments, and positions.

Innovations in the early modern era

It is often claimed that scholasticism reached its high water mark in the thirteenth or early fourteenth century and then entered a long period of decline. The sixteenth century, the golden era of Spanish scholasticism, is sometimes described as a time of revival, which in most accounts ends with Francisco Suárez (1548–1617), allegedly the last great scholastic. The present narrative disrupts this picture. As regards the plurality of opinions and the analysis of its foundations, the scholastic tradition reached the apex of its theoretical intensity after Suárez in the seventeenth century. Compared to the depth and complexity of the respective debates, medieval considerations concerning these issues remained inchoate, and even the works of sixteenth-century Spanish scholastics are, at best, preparative for the rich reflections of their successors in the second half of the seventeenth century.

The doctrines that deserve the most attention in this respect are *probabilism* and *anti-probabilism* (already referred to as such in the seventeenth century). Both are complex approaches, or rather clusters of approaches, to the choice of opinions. For the time being, it suffices to introduce them cursorily. What the two approaches had in common were new scholastic notions of probability, which put reasons for truth and the authority of authors on an equal footing as grounds for the eligibility of an opinion (see Chapter 4). On this basis, probabilism postulated that—except in special cases—any probable opinion might *prima facie* be chosen, even if the agent considers the

opinion in question to be less probable than its negation.⁹ Probabilism is a doctrine of sufficiency, asserting that the satisfaction of a basic standard suffices for reasonable and morally legitimate conduct, and that maximization in the sense of striving for the ‘best’ (or ‘most probable’) is not mandatory. These claims obviously require justification, which probabilists rushed to supply. Spurred on by objections, some of them developed highly sophisticated moral, action-theoretical, and epistemological justifications of probabilism. Anti-probabilists differed from probabilists by conceiving the choice of opinions as a process of maximization. Following medieval precedent, they usually required choosing the most probable or the safest opinion in the sense explained below.

Probabilism, which was first conceived in 1577, will receive the lion’s share of our attention because it introduced new principles, claims, and rules for the choice of opinions. Between the mid-seventeenth and mid-eighteenth century, large numbers of probabilists and anti-probabilists clashed in one of the most acrimonious and momentous debates of the period. In fact, it is quite surprising that one of the most extensive debates from this otherwise well-scrutinized period of intellectual history has hitherto not attracted more interest. The number of respective investigations from the second half of the twentieth century is quite low, while an extensive number of original and secondary contributions from the early modern era exist. Hundreds of books dealt with the nature of probable opinions and the concomitants of their prudent choice. The debate on probable opinions was therefore, by any quantitative standard, one of the major controversies of the early modern era. The debate also hardly lacked philosophical quality. At least from the 1640s onward, it was ripe with important epistemological and moral claims and arguments.

Against this background, the question could be raised why we do not straightforwardly discuss probabilism and anti-probabilism, the main contenders in the debate, instead of taking the seemingly circuitous route via a plurality of opinions. The crux is that probabilism and anti-probabilism are usually conceived as mere moral systems, that is, as instruments for moral guidance in matters of practical ethics, and I do not want to focus on practical

⁹Today, probabilism denotes the claim that all our credences (beliefs and degrees of belief) should follow the laws of the calculus of probability (see, e.g. Huber 2016). The scholastic doctrine of probabilism had a rather different meaning, as will be explained from Chapter 2 onward. The name ‘probabilism’ came into use in the second half of the seventeenth century for what originally had been called *doctrina probabilitatis*.

ethics in this book. Practical ethics took the form of an elaborate casuistry (case-specific ethics) in the scholastic tradition, especially in the seventeenth century. Probabilism and anti-probabilism are therefore usually treated as handmaidens of casuistry. This is certainly not a mistake, and I have often taken this perspective in previous works. However, the ‘handmaiden perspective’ grossly underestimates the implications of probabilism and anti-probabilism. Both address the choice of opinions in general terms and have thus changed the shape and aspirations of scholastic dealings with a plurality of eligible opinions. *Probabilism and anti-probabilism should therefore first and foremost be considered doctrines that regulated a plurality of opinions, casuistry only being a specific mode of their application.*¹⁰

A small bouquet of questions from the debate on probable opinions confirms this judgment:

- Ought human beings strive for the morally best or does it suffice to aim for a sufficiently good solution?
- What is the relationship between moral obligation and freedom of choice, in particular if the validity of an obligation is uncertain?
- How does the number of competent supporters of an opinion influence its plausibility or approvability?
- If it is granted that controversial opinions can be adoptable, should opinions whose adoptability is controversial also be adoptable?
- Are ‘modern’ moral opinions *ceteris paribus* more eligible than past ones?¹¹
- Can it be psychologically possible and reasonable to assent to opinions that appear less probable to the agent than their negation?

¹⁰Schwartz (2014: 374) considers peer disagreement to be a core issue of probabilism, a perspective I agree with and which I pursued in Schuessler (2014a). Maybe some explanation is also due on my former focus on moral uncertainty (Schuessler 2003, 2006). Schwartz contrasts approaches to probabilism via reasonable disagreement and moral uncertainty. In fact, there is a clear difference of emphasis and perspective, but there is no incompatibility between the approaches. Many of the foundational scholastic norms and guiding considerations for dealing with opinions in conscience were norms for action under uncertainty (e.g. *qui periculum amat, peribit in illo* – those who love danger will perish in it). It is true, of course, that moral uncertainty was predominantly triggered by peer disagreement (or a variety of conflicting opinions) in scholastic moral theology. Yet that does not render the ‘uncertainty perspective’ moot. Tutino’s (2018) title bears witness of this fact.

¹¹For scholastics, ‘modern’ (*modernus*) principally meant recent or contemporary, often referring to the last one hundred years before the present in question. It did not, as is the case today, possess the connotation of a break with the past, see Chapter 7.

These and other questions were major points of controversy in the seventeenth-century debate on the use of probable opinions. The answers to these questions had a significant impact on how broad or narrow the plural sphere of eligible opinions in seventeenth-century Catholic moral theology was conceived. We will inspect rival scholastic positions and their arguments on certain questions in detail, while others are only cursorily introduced (see chapter preview below). Epistemological or epistemologico-ethical issues will take center stage, since I have already discussed the ethical side of probabilism in earlier writings.¹²

Plurality and pluralism

Besides generally outlining the subject matter and scope of this book, let me highlight some additional points. A first point concerns the use of the concept of pluralism. The scholastic tradition accepted a plurality of competing opinions in many fields and on many questions. Did a pluralism of (probable) opinions therefore already exist? The question aims at unearthing a possible difference between a pluralism of opinions and the mere willy-nilly acceptance or tolerance of a plurality of opinions.

The term pluralism attained its present meaning in philosophy and politics in the early twentieth century.¹³ In various contexts, it denies the reducibility or subordination of a plurality of things to an underlying unity. Hence, pluralism opposes metaphysical monism ('there is only one substance'), value monism ('there is only one fundamental value'), single party politics ('there should only be one political party'), or a unitarian worldview ('there is only one correct worldview'). In contrast to other pluralisms, a pluralism of opinions is usually not considered to be an independent phenomenon. It is usually treated as a concomitant of political pluralism and democracy, because curtailing the plurality of competing opinions in favor of one dominant and prescribed opinion is the hallmark of totalitarianism or other anti-democratic political systems.

¹²Schuessler (2003, 2006a); Schuessler (2005); Schuessler (forthcoming). Throughout this book, I write my name in the international, machine legible spelling. Hence, I do not use the umlaut 'ü' (as in Schüssler) or the German 'scharfes s' (as in Schüßler, my original last name). References to my own work are adjusted accordingly.

¹³See Baghramian and Ingram (2000), Introduction; Breitling (1980).

Given the conditions under which the modern discourse on pluralism emerged and its close ties to democratic politics and modern societies, it seems natural to not expect the existence of a pluralism of opinions before the modern era. In most accounts, its roots do not reach further back than to the Enlightenment and the eighteenth century.¹⁴ It might even be argued that well-functioning pluralism must be unconstrained and that the holders of opinions should never face any prohibitions with respect to adopting opinions or persecution for holding deviant ones. Such propitious conditions did not exist prior to the modern age. However, there are good reasons to be less restrictive in our understanding of pluralism. A definition of pluralism that is too closely tailored to modern liberal values renders it difficult to do justice to pluralistic tendencies in non-European societies – or in premodern European societies, for that matter. A less value-driven, sociological approach to a pluralism of opinions appears more evenhanded in this respect. Hence, a society might be said to foster a pluralism of opinions if it relies on competition between alternative opinions for the solution of at least a significant share of its core problems of governance. Competition between the opinions in question, or respectively their holders, should be non-violent. This does not preclude that the competition and assessment of opinions is restricted to elites or specialists, who receive ample training in argumentation (as medieval philosophers, theologians, and lawyers did). Moreover, it is not necessary for all opinions to be tolerated in a pluralistic system. It suffices if a significant spectrum of opinions can be legitimately held.

A further element of a pluralism of opinions, as understood here, are rules and entitlements for adopters of opinions. These rules and entitlements should safeguard a significant freedom to adopt alternative opinions and protect the holders of diverse opinions from reproach. Users and producers of opinions may be grouped into different categories with different duties and entitlements (as in the scholastic system which distinguishes between sufficiently competent (*litterati*) and insufficiently competent (*illitterati*) reasoners), but should at least be treated as equals within each category. A pluralism of opinions, thus, amounts to a structured, rule-guided, and group-wise egalitarian system of regulating the use of opinions, which legitimizes the upholding of alternative opinions.

Let this be a snapshot of a pluralism of opinions in a nutshell, which at the very least provides a foundation for an ascription of pluralism to a broad

¹⁴For a focus on this period as germane for pluralism, see the work of Isaiah Berlin (2000).

spectrum of societies. The scholastic regulations on the use of opinions in this sense instituted a pluralism of opinions. Medieval societies were therefore pluralistic in a deeper sense than merely countenancing a plurality of opinions whose emergence they could not prevent.¹⁵

Modern approaches to the ‘use of opinions’: social epistemology, testimony, and others

With pluralism, we use a modern term here to characterize the effect of a set of scholastic doctrines and regulations. We may well ask why other modern philosophical concepts, such as social epistemology, testimony, doxastic voluntarism, epistemic ethics, etc. should not also be used in the present inquiry. In fact, I will use these terms occasionally to document that the issues scholastics discussed under the heading ‘use of opinions’ did not vanish from the philosophical agenda. On the contrary, they have resurfaced in almost scholastic intricacy over the last fifty years, primarily in analytic philosophy. The present investigation is therefore of interest to anyone who is interested in learning more about the history of the respective concepts and the roles they played in premodern philosophy or theology.

There are, nevertheless, reasons to be cautious about insinuating an all too close resemblance between scholastic and modern perspectives. Take, for instance, social epistemology.¹⁶ According to one of the main modern understandings of social epistemology, it is concerned with the formation of beliefs on the grounds of other persons’ beliefs or testimony. Insofar, parallels to the scholastic ‘choice’ of opinions do indeed exist; however, as we shall see, from a scholastic perspective, choice need not imply assent to an opinion. It might simply result in taking an opinion as a premise for a course of action, which does not imply assenting to the opinion. Scholastic doctrines of choice of opinions thus dealt with a crossover between issues that today are

¹⁵This is not to say that a diversity of opinions must have been welcomed in the scholastic tradition. The point is rather that its protagonists were respected as equals, who were entitled to uphold their opinions (as scholastic masters). Even today, many persons who emphatically subscribe to the modern pluralism of opinions may hope for more consensus on philosophical, political, economic, or moral questions. Note also that I continue to speak of a plurality of opinions whenever diversity is of more importance than its mode of regulation.

¹⁶For an assessment of scholastic social epistemology under this terminology, see Pasnau (2010). For the modern understanding of social epistemology, see, e.g., Goldman (2015).

addressed by separate theories, namely social epistemology and decision theory. That is the reason why I did not adopt the perspective of social epistemology as the primary matrix of this book. Instead, I prefer to speak of the choice of opinions while gradually unfolding what that meant in a scholastic context. It nevertheless deserves to be noted that for some areas of inquiry, as for instance the debate on probable opinions after 1640, it actually makes sense to speak without caveat of scholastic social epistemology. At that time, the growing role of assent to the choice of opinions turned the debate on probable opinions into a true conflict of scholastic social epistemologies.

Similar considerations are valid for the concept of testimony. Testimony may signify many things today, well beyond a focus on authoritative or expert opinions.¹⁷ However, principles and rules for the reasonable adoption of expert opinions will always remain central to the use of testimony, and this was precisely what scholastic doctrines on the use of opinions, among other things, offered.

According to doxastic voluntarism, we can decide what to believe. There is a vast array of related assumptions in the scholastic tradition, of which a specific one became central in the seventeenth-century debate on the use of probable opinions: the claim that human beings can switch their assent at will from one reasonably tenable set of beliefs to another, and that it can be reasonable to do so. Thus, at least one strand of the debate on probable opinions leads us to the discussion of doxastic voluntarism (see Chapter 10).

Scholastic doctrines on the use of opinions belonged to the field of moral theology, and thus naturally included what today is called an epistemic ethic. In fact, a person's use of her or his intellect generally invoked questions of virtue and sin in the Christian tradition. The scholastic distinction between the goal of the intellect (i.e. truth) and the goal of the will (i.e. the good) allowed for a practicable conception of epistemic rationality (truth-directed). Scholastic epistemic morality was mainly concerned with the sinfulness (or excusability) of deprioritizing one's strive for truth. Many further aspects of a normative understanding of epistemic acts or processes will become apparent throughout the present inquiry.

To sum up, modern philosophical themes are broached at various points in the present book, although I acknowledge that scholastic doctrines certainly should be understood in terms of their own premises and the contexts in which they unfolded. Otherwise, they cannot be understood

¹⁷See, e.g., Adler (2013); Kennedy (2004); Serjeantson (1999).

properly. On the other hand, I believe that the investigation of past doctrines helps us better understand our present positions. Not to relate to modern views at all would foreclose this objective. Therefore, I have steered a compromise course in this respect.

Sources, genres, and interpretations

The central claims of this inquiry have now been outlined, but let me briefly comment on the sources on which the inquiry relies and its position with respect to existing research.

As the foregoing illustrates, this book examines an unconventional body of history of philosophy sources. Probabilism and anti-probabilism are first and foremost doctrines of moral theology, more specifically, Catholic moral theology. Usually, philosophers do not investigate scholastic moral theology for its philosophical content, though theology and philosophy were, of course, intimately intertwined before the Enlightenment era. This already is reason enough not to discriminate against theological sources in the history of premodern philosophy; nonetheless, some emphasis may be added with respect to the developments in the second half of the seventeenth century. The importance of epistemological issues for Catholic moral theology increased considerably after 1640. An entire genre of manuals emerged, often entitled ‘foundation of moral theology’ (*fundamentum theologiae moralis*), which grounded moral theology in the art of probable reasoning. I take this to be a major event in seventeenth-century epistemology.

More problematic than accepting moral theology as a background for philosophical discussion might be an almost exclusive focus on its Catholic variety. There are, of course, reasons for this denominational one-sidedness. Scholasticism remained much stronger on the Catholic side, although a Protestant scholasticism also emerged in the early modern era. Moreover, with respect to the choice of opinions, bolder claims have been made and more heated controversies have erupted on the Catholic side. As indicated, the debate between Catholic probabilists and Catholic anti-probabilists was one of the most extensive and most intense intellectual controversies of the seventeenth century, regardless whether judging by the number of participants, number of publications, complexity of arguments, or political

ramifications. The Protestant involvement in the debate was rather marginal, because Protestant moral theologians collectively rejected most of the bolder epistemological claims of their Catholic opponents. Probabilism, in particular, neither gained a foothold in Protestant thought, nor was it discussed in depth.

For most sources, I preferred to use easily accessible editions which can be found on the Internet or downloaded from there. The majority of printed sources (until 1800) for the scholastic tradition are now freely available and can be accessed via online library catalogues or search engines. There are, anyway, hardly any modern critical editions of Baroque scholastic works available for the time after Francisco Suárez (that is, after 1620). Bio- and bibliographical information on many of the presently discussed but otherwise hardly known authors can be retrieved from Jacob Schmutz' magnificent Web site *scholasticon* (scholasticon.ish-lyon.cnrs.fr).

The scholastic segmentation of a text is usually used here to locate a reference in a scholastic source text. Most of the quoted scholastic texts have a tree-structure that allows for convenient identification of even small textual units independently of a specific edition of the text. For instance, quotes can often easily be found by following the levels of segmentation into tracts, disputations, questions, chapters, and points. Readers can thus resort to different editions of the same text. Page numbers in sources are only provided if a text's last level of segmentation (in my view) does not allow for convenient tracing.

There is a small body of recent research on which the present inquiry builds. It will be quoted in due course, but some preliminary remarks may be in order. The older Catholic literature on the subject as well as some recent studies endorse a perspective from which the present inquiry aims to break away. Catholic neo-scholasticism before the Second Vatican Council (1962–1965) was often hostile to the probabilism of the Baroque era on theological and philosophical grounds, not least because it is incompatible with orthodox Thomism as understood by modern neo-scholastics. This turns Thomas Deman's *Probabilisme* (1936) into a problematic source (moreover, it calls for a critical assessment of the hostility towards probabilism in more recent publications).¹⁸ On the one hand, Deman's long lexicon article still offers the most comprehensive overview of probabilism and its history existing today. On the other hand, it is often hostile to probabilism and pervaded by the spirit

¹⁸For instance, the treatment of probabilism in Franklin (2001).

of turn of the twentieth century Catholic neo-scholasticism. We will not pursue here whether probabilism was or is good Catholic theology that is compatible with Christian morality or true to Aquinas. The accusation of moral over-permissiveness ('laxism') will also not preoccupy us. One observer's laxity is another observer's openness to moral progress, and not all will bemoan the fact that more than a few inquisitors became morally permissive.

It should be mentioned, however, that the Catholic Church's attitude towards a pluralism of opinions and theological doctrine has changed over time. In the wake of Leo XIII's encyclical *Aeterni Patris* (1879), a neo-Thomism aspiring to uniformity emerged, which was decidedly anti-pluralist in its understanding of the 'good core' of the scholastic tradition. This anti-pluralistic approach to scholasticism to which Deman belonged lost its grip on Catholic theology after World War II.¹⁹ Subsequently, Thomism became pluralistic again, as it always had been in the older, premodern Catholic tradition. However, to the present day, Catholic dealings with pluralism (in many of its subspecies) proceed without a full discussion of the role of pluralism in the scholastic tradition. Although the aims of my investigation are neither theological nor concerned with the Catholic Church, the present study's emphasis on a systematic, rule-based scholastic pluralism of opinions raises the question whether a satisfactory account of scholastic and Catholic pluralism as it once existed requires a more open attitude to Baroque scholasticism and less of a fixation on Aquinas.²⁰

Finally, I should mention another issue I disagree with in some of the extant literature on probabilism. The views on the purpose and impact of this doctrine differ markedly: Was it an instrument to steer individuals towards opinions that were preferred by the Catholic Church or secular rulers? Or did it—of course within limits—widen the liberty of individuals to follow their preferred opinions? Many experts on early modern moral theology regard probabilism predominantly as an instrument of tutelage and external guidance. A few, whose position I seek to reinforce with this book, hold the opposite view, and link probabilism to an increased freedom of opinion. The debate is tricky because probabilism had 'double-edged' or even paradoxical

¹⁹See Ernst (2012); McCool (1989). After the Second Vatican Council (1962–1965) not only did neo-scholastic theology become more pluralistic, so did Catholic theology as a whole.

²⁰Alasdair MacIntyre is, of course, a key author for a contemporary Catholic pullback to the original Aristotle and Aquinas as opposed to a focus on the *long duree* of the scholastic tradition (see MacIntyre 1990; Lutz 2004).

applications. Despite these complications, however, the antagonism between probabilism and anti-probabilism speaks in favor of regarding the former mainly as a doctrine that widened the space of eligible opinions, offering individuals new vistas for defending their opinions. Not for nothing was probabilism referred to as a liberty-favoring (*libertati favens*) doctrine by friends and foes alike in the early modern era. The tension between tutelage and liberty with respect to probabilism will come up repeatedly in the book with a culminating discussion in Chapter 11.

Chapter preview

The topics discussed so far suggest a broad approach to the scholastic debate on probable opinions, aiming to highlight its systematic, cumulative, detailed, and changing character. Four overview chapters (Chapters 1, 2, 3, 8) will help the reader gain a solid initial understanding of the subsequently discussed issues and prevent them from losing track between each issue that is being addressed. The remaining eight chapters deal with scholastic probability, (social) epistemology, concomitant ethical questions, as well as with modernization and scholastic contributions to the rise of modern probability in the seventeenth century.

Chapter 1 elucidates the medieval foundations of scholastic doctrines on the choice of opinions. It demonstrates that the existence of a diversity of opinions and the question of alternative choices of opinions were already topics of concern for thirteenth-century scholastics. To adequately understand the issues involved, the scholastic distinction between knowledge, faith/conviction (both signified by the Latin word *fides*), and opinion needs to be outlined, and the scholastic concepts of probability and probable opinion need to be introduced. The pivotal role of Aristotle's concept of *endoxon*, which signifies a received or approved opinion, will be addressed in this context. Scholastic theology also relied on the assumption that a proposition and its negation (or a counter-proposition that implies its negation) can both be probable at the same time. Hence, many alternative opinions could be considered approvable. Restrictions and entitlements to choose between these alternatives under specific conditions of uncertainty are often summarized under the label of 'medieval tutorism. I will show here that medieval

tutorism was much less restrictive than some modern commentators assume. On the whole, as is argued here, a pluralism of opinions already existed in medieval scholastic thought.

Chapter 2 bridges the period from the late fifteenth century to the introduction of probabilism in 1577. It registers some important trends in the discourses on probability of early modern scholasticism and humanism, and touches upon Melchor Cano's influential work on theological argumentation. Cano, one of the great luminaries of the famous School of Salamanca, claims that in many contexts, the consensus of saints, the Fathers of the Church, scholastic doctors, and even ancient philosophers put an end to legitimate debate. This norm indirectly corroborates that observable and persistent disagreement among authorities legitimized controversy. In other words, disagreement between competent reasoners (or those who were recognized as such) tended to legitimize disagreement. We then proceed to probabilism, a doctrine invented in Salamanca by the Dominican friar Bartolomé de Medina in 1577. The chapter establishes a basic understanding of probabilism that focuses on its epistemological side and outlines the main justifications for probabilism.

Chapter 3 offers a periodized overview of the development of probabilism and of the acrimonious debate on probabilism, fueled by the rise of anti-probabilism in the second half of the seventeenth century. Thus, a map will be drawn, based on the historical context, on which the discussed theoretical developments and innovations with respect to the treatment of probable opinions can be identified. After the rise of probabilism from 1577–1620, it reached its apogee in terms of acceptance and geographical spread from 1620–1656. Thereafter, a massive anti-probabilist campaign set in, sparking an acrimonious controversy on probable opinions from 1656–1700. This controversy marked the apex of scholastic theoretical reflection on the use of probable opinions. From 1700–1773 (the year Pope Clement VII disbanded the Jesuit Order), probabilism lost ground in France and some other European countries, while retaining a strong position elsewhere (e.g. in Bavaria, parts of Italy). Moreover, the rise of a new version of probabilism (equi-probabilism) during this period documents that the theoretical development of probabilism had not yet come to an end. Finally, from 1773 to the present, probabilism, which was never formally abandoned, continues to exist in Catholic moral theology. On the whole, I agree with the key dates used in this periodization that was developed by authors who, to various

degrees, were hostile towards probabilism. However, my presentation will indicate that probabilism's decline after 1656 and 1700 has been considerably exaggerated by hostile sources.

Chapter 4 deals with one of the major innovations in the wake of probabilism. The rapid spread of probabilism was conducive to changes in the scholastic understanding of probability, at least in moral theology, which provided the normative basis for the scholastic pluralism of opinions. It led to the demise of the authority-based *endoxon* as a comprehensive guiding concept for the choice of opinions and the emergence of a new two-tiered conception of probability. An opinion was probable according to this new conception, if it was backed by sufficient authority or good truth-directed reasons. The Aristotelian *endoxon* was forthwith largely identified with authority-based 'extrinsic' probability only, to which reasons-based 'intrinsic' probability was explicitly added as a second pillar of the probability of opinions. Robert Maryks (2008) emphasizes the significance of these developments. This gives occasion to scrutinize Maryks' claims in more detail, in particular the instigating role of the Jesuits for the outlined transition and its roots in Ciceronian rhetoric. In both respects, I will be more reluctant than Maryks and place emphasis on the diversity of the new probability's roots.

Chapter 5 is a mixed basket of scholastic tools for the reasonable choice of extrinsic opinions. Lists of criteria and selection procedures for choosing opinions or persons whom others could reasonably trust had been provided since the Middle Ages. Scholastics applied various sophisticated grids of criteria to the selection of opinions or the trustworthiness of persons. However, pre-probabilistic selection procedures often gave high rank to received opinions, whereas this criterion is much less important for probabilist procedures or sets of criteria. This supports the claim that received opinions became increasingly less important for scholastic uses of opinion. We will also see that the commonness of opinions was only a weak *prima facie* reason for choice. Competent reasoners were largely free to deviate from a common opinion (*opinio communis*) if they could claim good reasons for doing so. However, this entitlement did not include persons who were not considered competent enough to judge an issue. Such persons were told to follow the opinions of competent others. The strong distinction between competent (*docti, literati*) and incompetent reasoners (*illiterati, idiotae*) is characteristic of the scholastic tradition. It amounts to a thoroughly expertocratic approach to the choice of opinions, and in this respect, differs starkly from Enlightenment

thought. Whereas the latter increasingly ascribed competence in moral matters to a wider public ('dare to think for yourself'), women included, scholastic moral theologians held fast to the presumed superiority of academically trained (male) moralists with a wealth of practical experience in the confessional.

Chapter 6 looks at one of the most hotly disputed claims in the debate on probabilism. Probabilists often assumed that *ceteris paribus* the authority of a single learned and competent reasoner (a single 'doctor') sufficed to render even a controversial opinion probable. Anti-probabilists responded by demanding a quorum of supporters for probability, for instance, four to seven doctors, who sided with a given opinion. Interestingly, no side in the debate called for allegiance to the majority—or even the weighted majority—of doctors, except as a *prima facie* consideration that could easily be overridden. The view that scholastics relied on the greater number of authorities is therefore severely misleading. In the Middle Ages already, the number of supporting authorities was only accepted as a reason for preferring a given opinion in the absence of other considerations, because there was always a danger that authors might blindly follow each other ('like sheep' was the common metaphor). Scholastics were thus deeply aware of this problem, which —according to Enlightenment folklore—they allegedly neglected. Numerical majorities of opinion holders only became epistemically significant under the auspices of the Enlightenment, in particular with the Marquis de Condorcet's mathematical substantiation that under certain conditions, a majority opinion is more likely true than that of the opposing minority. As indicated, scholastics had long accepted a non-mathematical version of epistemic majoritarianism as a default criterion when further information was lacking, but they considered it pointless in cases where a minority and majority faced each other in reasonable disagreement. Under conditions of a pluralism of opinions on which reasonable persons could legitimately disagree, the question was rather how many competent asserters were required to render a controversial opinion reasonably assertable. The answer was that either a single asserter sufficed, or a handful, while majorities did not matter.

Chapter 7 discusses issues of modernity. Should the opinions of contemporary or of great ancient authors *ceteris paribus* be preferred? Who has greater authority, moderns or ancients? This question is not perchance reminiscent of the famous *Querelle des anciens et des modernes* between French

intellectuals in the late seventeenth century. It shows that a battle between ancients and moderns raged in Catholic moral theology. Many probabilists argued for the *ceteris paribus* greater authority of contemporary over ancient moral theologians; anti-probabilists countered by emphasizing the insuperable authority in moral matters of the Fathers of the Church, but to a lesser degree also of the great medieval scholastics. In morality, many probabilists therefore openly favored a modernization of opinions. However, they did not consider this a break with the past, but an adequate updating. Hence, they were not modernists in a sense that implies a rhetorical break with the past, but modernizers in the sense of ‘updaters’, who accept that truth, to a certain degree, is the daughter of time (*veritas filia temporis*). Scholastic hostility towards innovators (*novatores*) had always focused on those who sought a break with the past and not towards authors who just innovate. After all, Aquinas was innovative for his time, as probabilists never tired to point out.

The developments canvassed in chapters four to seven gained significance before probabilism came under attack in the second half of the seventeenth century. The remaining chapters deal with developments that took center stage during the ensuing period of controversial debate. *Chapter 8* begins with an overview of the theoretical issues dominating the controversy on probable opinions in the second half of the seventeenth century. It highlights that the scholastic debate on the choice of opinions took a decidedly epistemological turn after 1640. This is true for anti-probabilist attacks as much as for the reactions of probabilists, who tried to ward off their opponents’ epistemological criticism. Both sides operated with new definitions of probability. One of the most important definitions, not least because it was shared by probabilists and anti-probabilists alike, turned the possibility of assent by reasonable persons into a defining criterion of probable opinions. Another innovation was the adaptation of Aristotle’s frequency view of probability to moral theology, which foreshadowed the frequentism of proponents of the new probability calculus. At the end of the chapter, the views of two notable anti-probabilists will be discussed: Miguel de Elizalde and Tirso Gonzalez.

Chapter 9 highlights an important theoretical problem concerning the eligibility of reasonably assertable opinions. In the 1640s, moral theologians began questioning whether opinions whose probability was controversial or doubtful could count as probable and thus as eligible in practice. Acceptance

of such opinions by some probabilists led to an enormous expansion of the set of eligible opinions. Against this background, the view that only uncontroversially probable opinions should be endorsed became mainstream. The underlying problem can be formulated in terms of reasonable assertability, which at the time was already included in definitions of probability. Most moral theologians acknowledged that controversial opinions could be reasonably assertable. Thus, controversial opinions on reasonable assertability could also be reasonably asserted. The resulting nested assertions (of reasonable assertability) could therefore be simplified, because opinions whose reasonable assertability was reasonably assertable, were reasonably assertable, all things considered. The opponents of this view realized that an infinite regress impended, which radically diluted the conditions of reasonable assertability for opinions. This then seems to pose a major theoretical challenge to all approaches that seek to regulate discourses on the basis of a binary yes/no ascription of reasonable assertability or reasonable rejectability to propositions. The chapter also contains a further vignette of a theorist, Juan Caramuel y Lobkowitz, a daring probabilist. His *Dialectic of Non-Certainty* (*Dialexis de non-certitudine*) will be discussed with respect, primarily, to controversial forms of probability.

Chapter 10 addresses a core piece of advanced probabilism. In response to anti-probabilist objections, probabilists in the second half of the seventeenth century developed sophisticated theories to demonstrate that agents could reasonably assent to propositions they considered less probable than their negation (a form of doxastic voluntarism). This sounds like an impossible mission, given that not only anti-probabilists, but also medieval scholastics, had rejected the reasonableness or even the possibility of assent under such conditions. However, probabilists like Martín de Esparza and Anthony Terill found arguments that convinced many theologians that a reasonable transition to a belief in less probable propositions is possible. We will inspect Terill's account in some detail and ask whether it can be as soundly refuted as anti-voluntarist preconceptions suggest. This provides an occasion to present a fourth personalized vignette, featuring Anthony Terill.

Chapter 11 examines whether probabilism was an instrument of external guidance and tutelage based on authoritative opinions or rather a step on the path towards the liberty to follow one's own opinion. This important question is contentious, even among modern scholars of probabilism. As indicated, I favor a freedom-oriented interpretation. Much of the chapter resolves false

antagonisms in the controversy about probabilism. A predilection for expert or extrinsic opinions in seventeenth-century Catholic moral theology does not imply that it curtailed freedom of choice. In fact, the considerable widening of the menu from which choice was possible buttressed individuals' freedom of choice. Similarly, the demand that ordinary agents request guidance from others, such as their confessors, does not represent a deprivation of choice if those others are in turn asked to respect an agent's probable opinions. In this complex normative field, the opposition between probabilism and anti-probabilism can be used as orientation. It was anti-probabilism, not probabilism, that tried to enforce external guidance.

Chapter 12 concludes the book by exploring the relationship between the scholastic discourse on probability and the emerging modern calculus of probability. The idea of mutual influence, which had been almost completely neglected until just a few decades ago, is suggested by recent research. It will be shown here that an even stronger scholastic influence on the genesis of modern probability existed than hitherto assumed. Many issues that characterize mathematical probability were raised by scholastics before the fathers of modern probability used them in their works. In the sixteenth century, it became common to assume that two probabilities can be equal, a proposition rarely found in the Middle Ages, and one that prepared the ground for the treatment of probability in mathematical equations. Also new was the increased significance of the frequency view of probability in theology, as well as urn and dice models as instruments of argumentation in matters of conscience.²¹ Even the idea of measuring uncertain prospects by the product of their probability and value (that is, expected value) can be found in scholastic texts before it was mathematically expressed by Pascal, Fermat, and Huygens. Finally, Juan Caramuel wrote the first extensive treatise on applications of mathematical probability. He not only envisaged a quantitative science of statistical prediction in politics (*arithmomantica*), but also seems to have been the first author to analyze what today is called a 'Dutch book', that is, a statistical prospect (or bet) in which one side always loses.

²¹With respect to frequency and urn models, I will add to the important initial discussion in Knebel (2000).

Chapter 1: Medieval Antecedents

Scholastic concepts and rules for the use or ‘choice’ of opinions are largely unknown today, and their terminology is unfamiliar even for many historians of philosophy.²² Hence, an introduction to the conceptual framework used by scholastic authors to deal with a plurality of opinions is necessary. Early modern contributions to this framework built on medieval roots, and these antecedents are necessary for understanding later developments. We will therefore begin with an outline of medieval approaches to the plurality of opinions.

Notable scholastics of the thirteenth century already discussed the notion of opinion, its uses, and in particular the question of the right choice of opinion from a plurality (or variety) of eligible opinions. A key qualifier for the eligibility of an opinion was the term *probabilis*, which today is often translated as ‘approved’ or ‘approvable’, and should not be taken to refer to probability in the modern sense. However, beyond approval, *probabilis* could have many meanings in the scholastic tradition, a fact that needs to be addressed in this chapter. Moreover, the choice of opinions was couched in a wider context of decisions of conscience, relying on rules for sin-free conduct under various forms of uncertainty. Medieval theories of conscience entailed issues of logic, epistemology, psychology, and ethics; they are therefore linked to nearly every corner of the vast scholastic philosophical and theological edifice. In another dimension, it would be possible to examine links to ancient thought, considering that scholastic notions of opinion, probability, doubt (and many others) derived from ancient Greco-Roman predecessors.²³ Finally, interdependencies exist with the highly developed and differentiated field of medieval jurisprudence, and parallels might even be sought with humanist and Renaissance thought, although my impression is that the

²²Since modern epistemologists may see problems with speaking of a choice of opinions (due to their doxastic anti-voluntarism), let me repeat a footnote from the introduction. It is important to emphasize that opinions as publicized statements (e.g. legal opinions) can at least be chosen as premises for action. Moreover, scholastic authors usually attributed a greater role than modern epistemologists to the will in the formation of beliefs. This issue will be discussed at length in Chapter 10.

²³See, e.g., Gagarin (1994); Glucker (1995); Judson (1991); Wohl (2014).

scholastic discourse on the choice of opinions was not much influenced by humanist ideas, at least not until the late fifteenth century.²⁴

Accounting for the wealth of links between the use of probable opinions and other fields of medieval scholasticism would have derailed the present project and required a book of its own. For this reason, a minimalistic approach is adopted, not least because our main focus will rest on seventeenth-century scholasticism, not its medieval ancestor. Hence, we will only schematically explore medieval regulations for the choice of opinions, and the meanings of the terms ‘opinion’ and ‘probable’ will be explained in summary. Fortunately, there is justification for this approach. The rules and concepts that governed the choice of opinions were often the common property of a wide array of scholastic authors with different doctrinal backgrounds. It is not entirely clear why the rules of the game were less varied than its possible outcomes (the eligible opinions). The demands of institutional agents, such as the Inquisition, or the need to offer confessors a fairly unified framework may have played a role. In any case, the rules and principles for choosing from a variety of opinions, in particular under conditions of uncertainty (that is, probability and doubt), were widely shared among scholastic authors. For a basic understanding of the common ground in question, we therefore need not pursue the thought of any great scholastic in depth. However, we should remember that a deep ocean of scholastic thought lurks beneath the surface we will be addressing here.

1. Medieval scholastic attitudes to the variety of opinions

The acceptance of a plurality of incompatible opinions, from which different agents might choose differently, does not correspond to the established image of the Middle Ages. Was not orthodoxy enforced with fire and sword in the Middle Ages? And were not all Christians required to adopt the right opinion, that is, the one prescribed by the Church, at the expense of all others? Such narrowly defined orthodoxy did indeed exist, and straying beyond the bounds of acceptable belief was risky, to say the least. Yet even a superficial familiarity with medieval scholastic practices of argumentation teaches that

²⁴For the links between medieval jurisprudence and theology, see Evans (2002). Humanist thought and possible influences will be discussed in Chapter 2.

controversy was an ineradicable feature of scholasticism. Disputation, resembling intellectual jousting, was endemic at medieval universities. Disputation bred controversy, and controversy led to a variety of alternative opinions, which scholastic masters honed under the pressure of objections but usually did not abandon in the course of academic disputes. Two for scholastic thought eminently important twelfth-century books, Gratian's *Harmony of Discordant Canons* (*Concordia discordantium canonum*) and Peter Lombard's *Sentences* (*Sententiae*) already indicate the existence of a disparate plurality of canons (judgments of canon law) and sentences (theological judgments) in their titles. Both strove, however, to achieve a harmonization of rival judgments, suggesting this to be the right intellectual attitude.²⁵ The unfolding of scholasticism in the thirteenth century, and the rise of a highly competitive medieval university system thwarted such hopes of interpretative harmonization. It is of significance that medieval scholastic schools of thought (*viae*) were usually named after a founder, such as Aquinas (*via Thomae*), Albert of Cologne, Duns Scotus, Buridan, and others. That is, a high premium on personal academic excellence existed, which created incentives to distinguish one's own position from everybody else's. Moreover, academically competitive religious orders, such as the Franciscans and Dominicans, sent their best and brightest into academic battles with one another and with secular masters. All this led to a sprawling plurality of opinions on most academic issues that were not curtailed by authoritative decisions of the Church.²⁶

The medieval Church, for its part, did not generally attempt to curb a plurality of opinions, which scholastics disputed, in advance, though it posited some landmark propositions, mostly fundamental 'truths of faith', which could not be questioned. It thus placed some immovable markers on a circumscribed field of intellectual contest, allowing the contestants to fill the field around the markers with controversial opinions. However, not all of the resulting plurality was condoned in retrospect. If supervisory authorities agreed that the process of scholastic debate had produced a false and dangerous opinion, it was prohibited. It can be claimed that at least for some fields of discourse such ex-post curtailing turned the scholastic plurality of

²⁵See Rosemann (2007); Winroth (2004).

²⁶For a panorama of the debates and intellectual climate during the apogee of the University of Paris in the Middle Ages, see Bianchi (1999); McLaughlin (1955); Thijssen (1998); Wei (2012).

opinions into a negligible phenomenon.²⁷ My position is that in many fields, the underlying pluralism was far from negligible. Medieval scholastic thought was pervaded by a plurality of opinions concerning permissible conduct in the fields of law and practical ethics, including important areas like the economy, warfare, medicine, family, and governance of the State and Church.²⁸ Controversies in these fields often lasted for centuries. This alone suffices to show that the plurality of opinions produced by the competitive scholastic academic system and practices of debating ‘for and against’ (*sic et non*) mattered for the development of medieval societies. A plurality of opinions also, of course, existed in the more theoretical reaches of theology and philosophy, but there, with some exceptions, the significance of its scope is more difficult to ascertain. On the whole, it may nevertheless be considered essential to scholasticism’s sociological function that its debating culture offered medieval societies a laboratory for the sober, logic-based analysis of the pros and cons of alternative views. This ‘laboratory’ was only open to academically trained experts in a science or an art, but that did not prevent it from being an arena for the competition of opinions.

However, medieval authors did not refer verbatim to a plurality of opinions. They rather spoke of a variety (*varietas*), diversity (*diversitas*) or contrariness (*contrarietas*) of opinions. These terms, in fact, imply acceptance of a plurality of opinions. There thus seems to be nothing wrong with using modern terminology, such as plurality, in the present context. This is not to say that a diversity of opinions was appreciated beyond being condoned. Scholastics generally strove for universally recognized knowledge (*scientia*) and thereby sought to overcome controversy. The attainment of knowledge, or what thinkers took for it, was perceived as an apt means to escape controversy into the safe harbor of universal consensus. Knowledge was defined as an epistemic state in which universally valid reasons for the truth of a proposition were fully transparent to the knower (see below). Hence, once knowledge was attained it should by definition be easy to convince others of it. This, at least, was the idea, but in practice, most medieval scholastics were keenly aware to agree on far too few knowledge claims to eradicate controversy in most fields that mattered to them. In fact, given the scholastic

²⁷Robert Pasnau (2011: pp. 430), for instance, regards the variance of scholastic positions in metaphysics that survived institutional oppression as disappointing.

²⁸For the mentioned issues, see in this sequence Ceccarelli (2001); Mueller (1997: 149); Menning (1993); Schuessler (2000); Noonan (1986); Lynch (1976) – and Schuessler (2014c) for an overview on medieval practical ethics.

propensity to add new questions and sub-questions to an existing stock of problems, the number of controversial issues seemed to grow faster than could be attended to by universally convincing arguments. A plurality of opinions was therefore accepted as fact, if not appreciated as a good thing, and was in any case perceived as a robust phenomenon that could not be expected to fade out of existence any time soon.

Ironically, this conclusion conveniently dovetails with one of the main objections against scholasticism. One common claim against scholasticism is that it sparks intellectual disputes without (as allegedly modern science does) being capable of resolving them. Turned around and more positively framed, this line of criticism implies that the scholastic tradition accepted a plurality of opinions in nearly all of its subject areas, and that it did not insist on dissolving this plurality. This led to attempts at managing a variety of opinions, not only by force and interdict, but through an evolving set of guidelines and entitlements which grounded a rich scholastic discourse on the permissible use of opinions.

Two particularly influential statements in this respect, judging from the number of subsequent references, originated from Thomas Aquinas (1225–1274) and Henry of Ghent (~1217–1293). Aquinas asked “Whether the hearers of different masters of theology, who hold contrary opinions, are excused of sin if they follow wrong opinions of their masters?”²⁹ This must have been a standard problem at medieval universities. A master propagated a thesis deemed wrong by his opponents. What should his pupils do? Loyalty to their master (and to some extent, career interests) demanded acceptance of one’s master’s theses, but risk aversion under moral uncertainty, as apparently required by theological orthodoxy (see Section 4), suggested suspension of assent or at least reluctance to strongly defend one’s teacher. Aquinas solved the problem in a classical scholastic way – he introduced a distinction. If a master’s opinions did not impinge on faith and morality, there was no moral risk in adhering to them. Hence, a master’s pupils could follow such opinions in good and safe conscience. Aquinas underlined this point with a Biblical quotation (Romans, 14, 5):³⁰

²⁹Aquinas (1956: 47), quodl. III, q. 4, a. 2 [10]: “Utrum auditores diversorum magistrorum Theologiae habentium contrarias opiniones, excusentur a peccato, si sequantur falsas opiniones magistrorum suorum”.

³⁰Aquinas (1956: 47), quodl. III, q. 4, a. 2 [10]. For other scholastic solutions similar to Aquinas’, see Bianchi (1999: 79).

“Let everybody abound in his own sense” (*Unusquisque in suo sensu abundet*).

On the other hand, if opinions concerned faith and morality, they could only be adopted at a person’s own risk. In case of error, ignorance did not excuse.³¹ Aquinas thus took a differentiated stance with respect to the variety of opinions he observed in academic discourse. Where religious or moral tenets of the Church were not involved, it was innocuous to follow one’s teacher and to preserve a variety of opinions. Note that Aquinas did not further distinguish between the new opinions of a master and a received canon of opinions. It was therefore legitimate in his eyes to increase the existing variety of opinions. In matters pertaining to faith and morality, however, pupils had to understand that fidelity to a teacher did not exonerate them. This is not to say that they were not allowed to follow him, but they did so at their own risk. (A timely withdrawal from an incriminating position would spare them from prosecution, even if responsibility for their error called for penitence.) Moreover, since controversy was a sign that an opinion pertaining to faith or morality might not be correct, variety indicated a risk of error. Aquinas thus neither vindicated variety nor did he demand it to be curbed everywhere.

Aquinas’ treatment of adherence to one’s teacher not only became classical for his followers in a narrow sense, but for a broad mass of scholastics. However, and this is of particular interest presently, his view of the matter was not accepted literally, even among members of the Dominican order and Thomists. In general, medieval and early modern Thomists—not to mention adherents of other scholastic schools of thought—heavily interpreted and re-interpreted Aquinas’ words.³² This was also the case with respect to adherence to one’s teacher. Antonino of Florence (1389–1459), an eminently influential canonized Dominican, softened Aquinas’ solution to the ‘professor case’ by, in his eyes, harmonizing it with other doctrines of the Angelic Doctor.³³ Antonino claimed that permission to adhere to the opinion

³¹Note that significant differences of opinion existed among scholastics concerning this solution. Here is not the place to delve deeper into the ramifications of scholastic positions concerning excusable ignorance and exculpating it (see Blomme 1958, 275-289; Franklin 2001: Chap. 4; Lottin 1948: 409).

³²There is a question here, of course, who should count as a Thomist. Some Neo-Thomists will only accept a few diehard defenders of Aquinas as Thomists, but if we account for the undisputed fact that Thomism was considered as one of the most widespread currents of scholastic thought in the early modern era, a more inclusive understanding of Thomism seems called for.

³³Aquinas, quodl. 3, a. 10 was tempered in the light of Aquinas, quodl. 7, a. 13; see Antonino of Florence (1582: 70), pars 1, tit. 3, cap. 10: “Haec enim verba beati Thomae non possunt intelligi, nisi de his ubi manifeste patet ex scriptura vel ecclesiae determinatione quod sit contra legem Dei.

of a competent speaker was not restricted to one's professor. Hence, Aquinas' limited case was generalized and integrated into a broader framework of adopting the opinions of competent others.³⁴ Many early modern Thomists endorsed this approach (see Chapter 6) thus widening the scope of excuses for the adoption of an erroneous opinion or, as Antonino would see it, explicating its true extent. From Antonino's point of view, Aquinas had not been sufficiently explicit with respect to the imputation of errors in cases pertaining to faith and morality. Such errors were inexcusable, and thus sinful, only if the error in question was manifest. If reasonable controversy about the erroneousness of an opinion was possible, the adoption of an opinion that was later unambiguously revealed as erroneous did not constitute a sin – even in the domain of faith and morality. With this interpretation, which considerably softened the restriction Aquinas had introduced at the literal textual level, Antonino followed the 'benevolent way' in moral theology, which gained ground in the early fifteenth century (see below). The proponents of this way did not consider it a new phenomenon but as the correct understanding of what thirteenth-century authorities always had intended, if not expressed unambiguously enough. It is difficult to ascertain whether this claim is true or an ex-post imposition. That is, followers of Aquinas, or at least more than a few of them, might have always understood him in the way explained by Antonino. In any case, Antonino's interpretation of Aquinas' statements concerning students who adopt their professor's opinions became highly influential from the early fifteenth century onward (see Chapter 6). Hence, the scholastic (and Thomist) acceptance of a plurality of opinions did not stop at the boundaries of faith and morality, but claimed validity even within their territory, wherever truths of faith and morality had not been established by the highest teaching authority of the Church beyond reasonable doubt. The existence of a vast scholastic casuistry is evidence of how much terrain was thus opened for a sin-free choice of opinions. Whether Antonino's understanding of Aquinas was already widespread in thirteenth- and fourteenth-century scholasticism is, as indicated, disputable, but the existence

... Item ex responsis qui videntur data ab Alberto Magno habentur quod frater simplex vel quilibet homo cum salute potest sequi in consiliis quacumque opinionem voluerit: dummodo alicuius doctoris magni opinionem sequatur”.

³⁴Whether Aquinas had not already legitimized such a broader application might be a matter of debate. In any case, his starting question explicitly refers to students following their professors (*magistri*). Antonino therefore clarified the issue.

of a growing case-based morality during those centuries is a sign that it was not entirely marginal.

Henry of Ghent examined the problem of a variety of opinions from a more general perspective than Aquinas.³⁵ He analyzed whether a person acting according to a scholarly opinion incurred a risk to commit a capital sin if there was scholarly controversy about the right way to act, and if alternatives to this course of action existed that were certainly not sinful. This question was also extensively discussed in medieval handbooks for confessors. Henry's answer is based on one of the basic scholastic tenets of action under moral uncertainty. If a significant and reasonable doubt existed whether action x was a capital sin, it was definitely a capital sin to x . That is, it was already a capital sin to unduly risk sinning (see Section 4). Henry used the example of concluding a contract, which was in doubt of being usurious. He offered several criteria for selecting an opinion, assuming that adherence to his criteria amounts to an appropriate management of moral risk, which insured against sinning. Those who diligently followed his criteria did not unduly risk sinning, and therefore did not sin.³⁶ This was the reverse side of medieval moral risk aversion. If you applied the correct rules of moral risk management, a morally risky action was not imputed as sin, even if it turned out to be wrong in an *ex-post* assessment (e.g., in a final decision of the Church). Sinning entails an element of subjectively wrong conduct that a diligent agent can avoid, and the standards of diligence were set in such a way as to not overburden good Christians. Moral sainthood was commendable, but not required of agents – including theologians and, it seems, even Popes.

Henry of Ghent listed three criteria for the adoption of a scholarly opinion under the premises of the outlined moral framework:³⁷ First, the status of the scholars should be observed; they should be veracious and well-trained. Second, reasons and grounds for the scholars' judgments are

³⁵Henry of Ghent (1518), quodlibet 4, q. 33: "Utrum doctoribus contrariantibus circa aliquod agibilibium et agere secundam unam opinionem est sine omni periculo peccati, agere vero secundum aliam est in dubio peccati mortalis: mortaliter peccet ille qui agit illud de quo est dubium an sit peccatum mortale".

³⁶Note that in this respect, the objective sinfulness of an action does not suffice to turn the agent into a sinner. He or she must subjectively fail some duty of sin avoidance to incur a sin. On the elaboration of this condition in the twelfth century in connection with analyses on 'excusing ignorance' (*ignorantia invincibilis*), see above Fn 10.

³⁷Henry of Ghent (1518), quodlibet 4, q. 33, fol. 148: "Tria sunt advertenda. 1. status doctorum: utrum veraces, qualiter instructi sunt; 2. rationes & fundamenta doctorum in sententiando: quorum rationes efficaciores & validiores & auctoritates expressiores; 3. conditio auditorum: an literati, potentes discernere determinaciones; an simplices quos oportet alteri parti credere".

required. We should follow scholars who side with the more valid and effective reasons, and the stronger authorities. Third, the status of the listener should be taken into account. It matters whether the listener is a *litteratus*, a highly educated person (not merely a literate person), and knows how to handle scholastic argumentation, or whether he is a simple person to whom it befits to believe others. Henry thus provides us with an early example of a list of criteria that guides the listener (or reader) in his choice from a variety of opinions. It should be emphasized that Henry's indicators have general epistemological relevance, rather than merely reflecting longstanding religious views. They represent an attempt to formulate general reasonable criteria for the adoption of scholarly opinions. The competence of the source matters, as does that of the receiver because he has to make a morally risky decision. Moreover, the reasons and authorities that support an opinion count. Similar demands concerning the quality of sources, messages, and receivers can still be found today in theories of testimony or belief revision, with the exception of references to authority as a source of legitimacy. The role of authority and authorities in medieval approaches to choice of opinions is a tricky issue, not least because it is fraught with many anti-scholastic and anti-medieval prejudices. Scholastic thought is usually depicted as being overly restricted by an allegiance to authorities, such as the Fathers of the Church, great scholastics, or ancient philosophers. In the course of the present inquiry, we will develop a more nuanced account of the role of authority in scholastic argumentation, and with respect to the choice of opinions in particular (see Section 3.3 below). It may suffice to note that Henry of Ghent mentioned reasons and authority on a par (and reasons first) in his second criterion for the selection of an opinion.

The so far discussed views of Thomas Aquinas and Henry of Ghent only serve here to elucidate a few points. As early as the thirteenth century (perhaps even earlier), a persistent variety of opinions was accepted as a starting point for further considerations in the scholastic tradition. These further considerations were not restricted to reminders that good Christians should adhere to the binding teachings of the Church or wait until binding decisions had been made. Scholastic theologians postulated distinctions, rules, and criteria for dealing with the choice of opinions under conditions of diversity. In Henry of Ghent's case, it is clear that the rules and criteria in question possessed broader ethical and epistemological ramifications. They did not simply call for obedience to a hierarchy, nor did they focus on

submission to authorities. This turns Aquinas' and Henry of Ghent's brief treatments of the choice of opinions under conditions of variety, and, of course, the medieval and early modern doctrines they influenced, into an interesting object of inquiry – an inquiry designed to show how a plurality of alternative opinions was dealt with in one of the mainstreams of European intellectual history.

To be able to address this larger task, we now need to take a step back and gain a rough understanding of the concepts used by Aquinas, Henry of Ghent, and others. The term 'opinion' has been prolifically used here when discussing their views. 'Opinion' (*opinio*) held a specific meaning for medieval scholastics, and medieval rules and principles for selecting an opinion under uncertainty as regards to its truth or sinfulness need to be explained in more detail.

2. Knowledge, faith/conviction (*fides*), and opinion in the Middle Ages

An in-depth inquiry of the scholastic concept of opinion, in itself much discussed in the Middle Ages, would require deep forays into medieval theories of cognition, mind, and language. As indicated, we will not be able to cover such a broad front here, but fortunately, the choice of opinions was regulated on the basis of shared brief characterizations of the term *opinio*, which did not depend on any specific underlying epistemological, semantical, or psychological views. Differences with respect to the meaning of *opinio* should not overly disconcert us because one meaning as regards regulation of opinions stands out. On the basis of this meaning, we will discuss a triplet of key concepts: knowledge (*scientia*), faith or conviction (*fides*), and opinion (*opinio*).

Knowledge (*episteme*) and opinion (*doxa*) were, of course, already key categories of ancient epistemology.³⁸ Both terms comprised a vast spectrum of meanings in ancient thought, and the spectrum of modern approaches to each of their meanings is hardly any narrower. *Episteme*, especially for Aristotle, who was the most important ancient interlocutor for scholastic thought, is in gross approximation a form of failsafe (not merely justified) true

³⁸On *episteme* and *doxa* in ancient and, in particular, Aristotle's thought, see Gerson (2009: 55, 62); Parry (2014); Taylor (1990).

belief in unchangeable matters, or alternatively in matters that necessarily are as they are. Medieval accounts of *scientia* echo this concept, although the practice of scholastic scientific reasoning introduced subtle differences to Aristotle's original intentions. Compared to *episteme*, *doxa* are an inferior kind of cognition; it is neither failsafe nor always true. However, Aristotle elaborated an epistemologically productive use for opinions. As generally accepted or reputable opinions (*endoxa*), they played an important role in persuasion and rhetoric, or in the training of dialectical argumentation. Aristotle approved of a peculiar type of syllogism—the dialectical syllogism—whose premises were mere opinions. Moreover, opinions represented starting points in Aristotle's methodology of inquiry, at least in ethics, politics, and other fields of inquiry into human action.³⁹ Aristotle's teachings influenced Cicero and Boethius, and all three developed into authorities for medieval approaches to opinion and its appropriate use.⁴⁰ However, with the rise of Aristotelianism in the twelfth and thirteenth centuries as a pillar of scholasticism, his use of opinion began to decisively shape the mainstream of scholastic thought.

Much continuity between ancient and medieval epistemological terminology could, therefore, be expected, but the category of *fides*, translatable either as faith or as firm conviction, depending on context, added a peculiarly Christian note. Early in the scholastic tradition, knowledge, faith/conviction, and opinion were grouped together, forming a triplet of concepts with considerable theoretical and practical significance. In the twelfth century, Hugh of St. Victor defined the relationship between these epistemological categories in a way that became exemplary for the scholastic tradition:⁴¹

“Faith/conviction (*fides*) is a sort of certainty in the soul concerning absent [i.e. not presently perceived] things, which ranks above opinion and below knowledge.”

³⁹On Aristotle's use of *endoxa*, see Bolton (1999); Haskins (2004); Irwin (1990); Renon (1998); Shields (2007); and the critique of Frede (2013).

⁴⁰Apart from Aristotle, the basic writings are Boethius (2004); Cicero (2003). For their career in the Middle Ages, see Green-Pedersen (1984); Rubinelli (2009)

⁴¹Hugh of Saint Victor (1865: 330), lib. 1, pars 10, cap. 2, D: “Fidem esse certitudinem quamdam animi de rebus absentibus, supra opinionem et infra scientiam constitutam”. Echoes of this sentence can still be found, e.g., in Kant' *Critique of Pure Reason*, see Kant (1998: 684)/AA 3: 531 and, e.g., Chignell (2007).

Thus, a rank order of three epistemic attitudes exists, with knowledge at its apex, faith/conviction sandwiched in the middle, and opinion at the bottom. Knowledge (*scientia*) is characterized by maximum confidence in the assent to a proposition under full transparency of the reasons for its truth. Mathematical demonstration is a standard example for such a state of mind. *Fides*, by contrast, excludes full cognitive transparency. Depending on context, the Latin term *fides* signified either religious faith or mundane conviction. The term applied to all states of unwavering and firm conviction of the truth of a proposition combined with an insufficient insight into reasons for truth (otherwise, a person would possess knowledge). Moreover, the religious conviction of a faithful Christian was not thought to rely on knowledge that Christian revelation is true, but on a firm trust in revelation. This residual ‘leap of faith’, which transcended the powers of reason alone, was conceived as a product of the will, not of intellectual insight. It may seem surprising that the same Latin term was used for religious faith and mundane, albeit firm conviction, but ancient usage in rhetoric and jurisprudence may account for this.⁴²

The religious significance of faith sparked a discussion about whether knowledge or faith was the ‘higher’ or nobler epistemic attitude.⁴³ Hugh of St. Victor’s ranking of knowledge above *fides* should therefore be understood as being restricted to philosophical and epistemological concerns. From a purely philosophical perspective, knowledge ranked higher than conviction because it implied transparency of reasons. Moreover, both attitudes (as well as opinion) entailed assent, that is, the holding true of a proposition. In fact, the triplet we discuss represents the totality of scholastic epistemic attitudes characterized by assent (*assensus*). There were others, such as doubt (*dubium*) or suspicion (*suspicio*), which precluded assent or at least did not require it by definition. The fact that scholastics involved assent in three basic epistemic attitudes demonstrates that neither of them can straightforwardly be equated with the modern notion of belief. The modern philosophical term ‘belief’ often merely signals the holding true of a proposition, and is thus too unspecific to distinguish between knowledge, faith/conviction, and opinion.

⁴²See, e.g., Cicero (1957), 3, 28, 37; Quintilianus (1996), 2, 4, 27; 3, 5, 10; and Cicero (1948), 1, 5: “Quid est argumentum? Probabile inventum ad faciendam fidem”.

⁴³On the relation of knowledge (*scientia*), faith (*fides*), and opinion (*opinio*) in medieval scholasticism see, e.g., the expansive discussion in Capreolus (1588), dist. 25, q. 1; Gregory of Rimini (1987), Vol. 1, prol., q. 2; and Lang (1930); Michalski (1969: 90-98); Pasnau (2010).

Opinion ranked lowest among assent-involving epistemic attitudes, because it lacked full conviction in the truth of a proposition. The most common definition of opinion, which was central for approaches to the use of opinions, characterizes it as a proposition held to be true, accompanied by a fear that the opposite might be true (*assensus cum formidine oppositi*).⁴⁴ That is, opinion implied assent combined with a perceived or ‘felt’ risk of error. From where did such a diminution of confidence arise? One possibility was the perception of reasons for the truth of a proposition as suboptimal or shaky. Another possibility, which is of major significance for us, arose from the existence of counter-opinions. The existence of defensible counter-opinions (see more on this below) was a reason for not being fully confident in the truth of a proposition, and to thus regard a proposition to only be an opinion.

Unfortunately, this simple picture was complicated by the fact that the term ‘opinion’ was not uniformly used and defined by scholastics. Already in the thirteenth century, Robert Grosseteste (~1175–1253) felt compelled to remind his readers of the different meanings of *opinio*.⁴⁵ In general, as Grosseteste explained, opinion signified a cognition combined with assent, and according to this understanding, opinion did not differ from faith/conviction or knowledge. Properly defined, however, an opinion denoted acceptance of one of two contradictory propositions with a fear that the other might be true (this reflects the above quoted characterization). Even better, ultimately, was a definition that restricted opinions to contingent propositions held to be true with a fear of error. This final definition, which involves the modal category of contingency, allows for a clear distinction between the knowable and the merely opinable. These understandings of opinion played an important role in scholastic epistemological debates, but for our purposes—which are limited to the regulation of the uses of opinions—the first two meanings are the most important ones. That is, for the

⁴⁴See Aquinas (1948), I, q. 79, art. 9, ad 4; Antonino of Florence (1582), pars 1, tit. 3, cap. 10, p. 143; Byrne (1968: 63-69).

⁴⁵Grosseteste (1981: 278), lib. 1, cap. 19: “Dico quod opinio tripliciter dicitur, communiter, scilicet, proprie et magis proprie. Opinio autem dicta communiter est cognitio cum assensu, et sic est idem quod fides, et secundum hoc opinio est genus scientiae et opinionis proprie et magis proprie, et quicquid scitur opinatur hoc modo. Opinio vero proprie dicta est acceptio unius partis contradictionis cum timore alterius, et secundum hoc non est scientia opinio. Tamen secundum hoc idem est scibile et opinabile, quia nichil prohibet quin necessarium scibile credatur, cum suspitione tamen quod contradictio eius possit esse vera; sed secundum hoc non est possibile ut idem homo sciat et opinetur simul et idem, sed unum et idem est scibile et opinabile simul a diversis. Magis proprie vero dicitur opinio acceptio veri contingentis in quantum huiusmodi, et secundum hoc non est idem scibile et opinabile”. See also the broad discussion in Buridan (2001), 8. 4. 3.

practical purpose of choosing opinions and guidance for the formation of opinions, *opinio* was either an umbrella term for any proposition held to be true by a contributor to a debate, or signified a proposition that was held to be true with sub-maximal confidence. In this respect, Aquinas' phrasing became canonical for the scholastic tradition:⁴⁶

“Opinion signifies an act of the intellect which leans to one side of a contradiction, whilst in fear of the other.”

The act of the intellect, to which Aquinas referred, was usually understood as assent, and opinion was thus characterized as assent combined with a fear of error. Due to this fear, a person who disseminated an opinion could not, without any additional reasons, expect assent by others. That is, stating a claim as one's opinion signals that it is debatable. The scholastic debating culture also explains why an opinion could be dissociated from the person whose opinion it is. Apparently, it was implicitly assumed that the propositions discussed by scholastics were at least somebody's opinion. We shall therefore get accustomed to the convention of calling any discussed propositions 'opinions'.

Opinions attained the utmost importance for practical guidance in scholastic thought because scholastics realized that humans could not aspire to full knowledge or indubitable belief with respect to most questions of human agency. Moreover, this was also what Aristotle seemed to purport. In the *Nicomachean Ethics*, Aristotle claimed that the same degree of precision (*akribeia*) cannot be attained in all fields of inquiry. According to Aristotle, ethics and politics allowed for less precision than mathematics. Medieval translators of Aristotle erroneously equated *akribeia* with *certitudo*, thereby claiming that not all fields of study allow for the same degree of certainty.⁴⁷ Since attainable certainty could vary from problem to problem, large parts of ethics and politics were relegated to the domain of opinion. Aristotelian assumptions in their medieval understanding thus buttressed the view that opinions were the adequate cognitive state for many inquiries into matters of human agency. The religious belief that Adam and Eve's original sin impaired human intellectual capabilities further strengthened this view. Consequently,

⁴⁶Aquinas (1948), I, q. 79, art. 9, ad 4.

⁴⁷See Aristotle (1984), Vol. 2, *Nicomachean Ethics*, lib. I, 1098a26; lib. II, 1104a2; Anagnostopoulos (1994); Kantola (1994: 34).

the prevalence of opinions and their plurality was not considered a transient state of affairs in the Middle Ages. It was an obvious result of the post-lapsarian order of things and of the epistemic conditions it implied. Scholastic thinkers were called upon to analyze how epistemic orientation and moral guidance remained possible under the predicament of a plurality of opinions rather than to look for quick remedies against such a plurality.

The respective permissions or prohibitions were usually formulated with respect to ‘following’ opinions, as Henry of Ghent’s conditions according to which it is legitimate to follow a given doctor’s disputed opinion exemplify. The main Latin term for ‘following’ is *sequi*, a term regularly used in handbooks for confessors when discussing a preference for opinions. Alternatively, but in the same vein, Henry of Ghent speaks of acting in accordance with an opinion (*agere secundam opinionem*). Johannes Nider (c. 1380–1438), a major moral theologian of the fifteenth century, advocated *prima facie* upholding any side with good conscience in an academic dispute. Nider explicitly refers to the choice of opinions. The first rule in such matters, according to Nider, is the safe choice of an opinion (*opinionis tuta electio*).⁴⁸ Based on this terminological backing, I regularly refer here to the choice of opinions and less often to following an opinion when alluding to the respective scholastic discussions. But clearly something should be said about the epistemological implications of these terms, because choosing or following an opinion does not necessarily imply assent, that is, holding the opinion in question to be true.

From a scholastic perspective, conscience is, first and foremost, responsible for guiding action (relying on prudence). It therefore seems natural to focus on acting in accordance with opinions, as Henry of Ghent suggests. We may also say that in this case, an opinion is accepted as a premise for action.⁴⁹ Certain propositions had to, of course, be assented as a matter of faith, but this is not the general case of choosing an opinion. In the majority of cases in which propositions might be chosen as opinions, regulations demanded or allowed them to be taken as premises for action without requiring them to be held true. However, this view seems to contradict the fact that it was considered sinful to act against one’s conscience. An agent could thus not simply act in accordance with an opinion and assent to a counter-opinion, especially in matters of morality. ‘Following’ an opinion

⁴⁸Ghent (1518), quodl. 4, q. 33; Nider (1532), lib. 3, cap. 11.

⁴⁹For the modern epistemological concept of acceptance, see Cohen (1992).

at least required suspension of assent with respect to a counter-opinion's truth, but it could, of course, also be combined with outright dissent to a counter-opinion. Still, under this premise, 'following' an opinion did not necessarily imply assent to the opinion in question.

It might therefore often have depended on the context whether followers of an opinion were implicitly or explicitly expected to assent to it or not. In an academic debate, for instance, followers of an opinion were naturally expected to assent to it, even if this expectation was not made explicit. In teaching, on the other hand, a professor may well follow a mainstream opinion with which the students were to be imbued, but which he considered less plausible than another opinion. On the whole, the outlined reluctance to specify a requirement of assent may have contributed to mitigating conflicts in the medieval Church. Persons who were called upon to follow an opinion they did not consider true may often have agreed to do so (at least outwardly), as long as nobody forced them to change their views. Of course, assent of all believers was expected to a certain number of 'truths of faith', but there was a great number of decisions and opinions of the 'larger and sounder' part of theologians or prelates for which it was not entirely clear whether everybody had to believe in their truth or just to comply with them. Asking all users or arbiters of opinions to avow assent beyond mere compliance may have unnecessarily instigated resistance. Take the case of a conservative confessor who considers insurance contracts as usurious, while the leading members and experts of his religious order overwhelmingly endorsed the opposite view. The confessor may have been willing to follow the majority view as more probable in the confessional, thus agreeing to absolve insurance-selling merchants, but he may have balked at abandoning his personal view and acknowledging that it was wrong – something assent to the more common opinion would have implied. For such reasons, imprecision with respect to the implications of 'following' may have allowed the Church to avoid internal conflicts.⁵⁰

Finally, we should recognize that rationality and legitimacy did not accrue to all kinds of opinion. Henry of Ghent already pointed out that only

⁵⁰Modern debates and decisions on who has teaching authority (*magisterium*) in the Catholic Church and what it implies confirm this view. There was a debate after Vaticanum II council (1962–1965), whether the call for *obsequium* with respect to the non-definitive (i.e. not classed as infallible) teaching of the Pope implied a requirement of assent. The fact that theologians quarrelled with this interpretation (see Sullivan 1983, Chap. 7) documents its conflictive potential.

opinions buttressed by sufficiently convincing reasons or authorities could be chosen with good conscience. Opinions that satisfied this requirement—with some reservations that require discussion—had to be ‘probable’ (*probabilis*) in scholastic diction. The scholastic concept of probability has multiple meanings and uses, and poses more than a handful of difficulties to modern interpreters. We therefore need to discuss scholastic notions of probability.

3. Probability as standard for the acceptability of opinions

3.1 The endoxon and probable opinion

Eligible opinions in the Middle Ages were usually tagged with the Latin predicates *probabilis*, *verisimilis*, *credibilis*, or *opinabilis*. These predicates signaled that an opinion (or proposition) was not only *prima facie* adoptable, but also fit to be held true. The most important predicate in this respect was ‘probable’ (*probabilis*). Its meaning was usually explained with reference to *Topics* I 100b20, in which Aristotle defines the notion of *endoxon*:⁵¹

“[T]hose opinions are reputable [*endoxa*] which are accepted by everyone or by the majority or by the wise – i.e. by all, or by the majority, or by the most notable and reputable of them.”

Endoxa, translated here as reputable opinions, are opinions or propositions which addressees of a speech or argument can be expected to readily believe. Hence, they play an important role in rhetoric and dialectic, where the objective is to persuade others. Yet *endoxa* also played a key role in Aristotle’s methodology of inquiry. They represent plausible starting points for inquiry in all sciences and arts.⁵² The medieval equivalent to an *endoxon* is an *opinio probabilis*, usually translated as ‘probable opinion’, but reference is sometimes also made to probable propositions, as the following quote from Aquinas documents:⁵³

⁵¹Aristotle (1984), Vol. 1, *Topics*, I, 100b20.

⁵²On Aristotle’s method of inquiry, see, e.g., Anagnostopoulos (2009); Bolton (1987); Kraut (2006); Shields (2007).

⁵³Aquinas (2007: 35), lib. I, 8. For details on the rise of the concept of *endoxon* mainly until the 13th century, see Byrne (1968); Von Moos (1991); Von Moos (2006).

“[P]ropositions are called probable because they are more known to the wise or to the multitude”.

Modern readers often face difficulties understanding scholastic concepts of probability because their notions of probability have been shaped against the background of a numerical calculus of probability, which emerged in the mid-seventeenth century. Before then, no numerical representation of probability (e.g., as a number between zero and one) existed. *Probabilis* was a qualitative predicate accruing to propositions and opinions, claiming that the propositions in question were fit for adoption and sufficiently, although not optimally, backed by reasons for truth.⁵⁴ Hence, the endoxical features of probability, that is, endorsement of a proposition by a multitude or by particularly competent persons (‘the wise’), were, in the scholastic tradition, considered good reasons to hold a proposition to be true. They were more than merely grounds for make-believe. Insofar, the respective medieval notion of probability resembled modern ‘logical’ interpretations of probability, and it is therefore not wayward to translate *probabilis* as probable. We should nevertheless be aware of other aspects of medieval endoxical notions of probability. First, there is the aspect of approbation or approval. Opinions (or more generally propositions) held by all or most persons, or by particularly competent ones, are approved by users and are thus *prima facie* approvable by others whose judgement is based on the pattern of an opinion’s acceptance in a community. *Opinio probabilis* can therefore also be translated as approved or approvable opinion. Moreover, *probabilis* can be understood to mean ‘plausible’. If a proposition is sufficiently supported by reasons for truth to be held true, yet not true beyond doubt, it is a plausible opinion.⁵⁵ The term ‘plausible’ has the advantage of not connoting modern quantitative notions of probability. In any case, we should not be too dogmatic concerning the

⁵⁴The converse term ‘improbable’ (*improbabilis*) definitely disqualified an opinion. We should, however, take into account that ‘improbable’ had different meanings in the scholastic tradition. Deman (1933: 263) claims that Aquinas uses ‘improbable’ in the sense of ‘repugnant to reason’. This conforms to a usage called positively improbable by Cardenas (1670), tract. 1, disp. 1, cap. 2, n. 19. Positively improbable opinions are certainly false and may even be contradictory or incoherent. Negatively improbable opinions, in contrast, are merely not probable because they lack justification. They are insufficiently backed by truth-directed reasons or authoritative voices. In the present book, ‘improbable’ is used in this second meaning unless indicated otherwise.

⁵⁵Such an understanding of plausibility can be linked to the medieval concepts of probability (b), (c), and (d), as discussed below. It might also be argued that universal, preponderant or expert approval (that is, endoxical status) lends plausibility to an opinion.

translation of *probabilis*. It should be clear that none of the modern translations captures the entire range of medieval connotations of the term.

What are examples of probable opinions? A typical medieval textbook example is ‘A mother loves her child’. This is a widely held *prima facie* belief (held by all or a multitude of persons), though it is not necessarily or always true (there are exceptions to motherly love), it is plausible and can be adopted without epistemic fault. The most interesting examples of probable opinions, however, are certainly those of ‘wise’ persons, which in scholastic practice meant experts in an art or science (see below).⁵⁶ Accordingly, it is probable that theology is a science in the Aristotelian sense, because many notable scholastic theologians thought it to be so, although the issue was disputed, and for this reason unsure. It was also probable that maritime insurance (a practice that emerged in the fourteenth century) was morally legitimate, because many experts of moral theology considered it as not usurious, although some experts disagreed. In short, the most interesting probable opinions were usually the disputed opinions of medieval experts in an art or science.

Aristotle’s methodology of inquiry helped integrate probable opinions into the theoretical framework of scholasticism. One of the most important logical devices for systematizing the use of probable opinions was the dialectical syllogism.⁵⁷ Syllogisms are patterns (‘figures’) of valid logical deduction from (usually two) premises, such as ‘all A are B’, ‘all B are C’, hence, ‘all A are C’. Dialectical syllogisms are based on standard syllogistic deduction patterns and differ from demonstrative syllogisms by operating with at least one probable opinion as a premise (demonstrative syllogisms only rely on certainly true premises). Accordingly, dialectical syllogisms convey probability but not certain truth to their conclusions. In theory, judgments of conscience in the scholastic traditions were modelled on the dialectical syllogism. A logic for probable reasoning existed in the Middle Ages, but actual probabilistic reasoning in law and morality did not rely on

⁵⁶Rexroth (2012) argues that the term expert (*expertus*) was mainly used in the Middle Ages for persons who had ample practical experience in the application of an art. I use the term here also for persons who were skilled and trained in an academic discipline, following Peter of Spain (1572: 170), see below.

⁵⁷Opinions, of course, not only played a major role in medieval dialectic but also in rhetoric. Medieval rhetoric, however, is not the appropriate background for approaching medieval social epistemology, for the simple reason that rhetoric is more concerned with persuasion than the delimitation of the rationally and morally legitimate use of opinions. On medieval rhetoric, see Cox and Ward (2006); Murphy (1981); Spranzi-Zuber (2011).

explicit logical constructions any more than it does today. The dialectical syllogism was, at best, a background model, sometimes used in academic stylization, whereas the actual discourse of jurisprudence and moral theology relied on less formal reasoning.

It has already been mentioned that other terms besides *probabilis* existed for propositions which with some reason could be held to be true. *Opinabilis* maintains that a proposition can, with sufficient reasons, be held to be an opinion. *Credibilis* literally substantiates that a proposition can be endorsed as faith/conviction, but usually does not mean more than worthiness to be held true. *Verisimilis* denotes an appearance of truth, which might not be more than a mere appearance. All these predicates were widely used in medieval scholastic rhetoric and in humanist circles, not least because they were prominent in ancient sources that were rediscovered or became fashionable at some point (e.g., Cicero, Quintilian). The term *probabilis*, however, prevailed with respect to the moral regulation of choice of opinions. It will therefore take center stage here because these regulations tell us a lot about the assumed legitimacy and rationality of choice of opinions, and possess the clearest affinity to an epistemic ethic.

Yet even for the predicate *probabilis*, four medieval understandings can be distinguished:⁵⁸

- (a) the endoxical,
- (b) a proto-frequentist one, according to which probable is ‘what occurs in most cases’,
- (c) a juridical one based on witness testimony, according to which an observational proposition confirmed by at least two witnesses is probable,
- (d) a semantical one, identifying probability with the preponderant partial inherence of a predicate in a subject.⁵⁹

Consequently, different conceptual backgrounds for the use of probability-related terms existed in the Middle Ages, much like different interpretations of probability exist today.⁶⁰ It is presently not necessary to delve deeper into the full spectrum of medieval meanings of *probabilis* and its cognates. In the context of choice of opinions, exemplified here by the considerations of Henry

⁵⁸See Schuessler (2014b).

⁵⁹Conception (d) is relevant with respect to medieval philosophy of language, but least important for the practical uses of opinions.

⁶⁰For modern conceptions of probability, see, e.g., Gillies (2000); Hájek (2011).

of Ghent, ‘probable opinion’ is almost always characterized with reference to the *endoxon*. This was the basis for moral regulations, which does not exclude that other notions of probability were indirectly involved, for instance, to explain why a proposition was believed to be true by a multitude of persons or by experts.

3.2 Both-sided probability and greater or smaller probability

It is of utmost importance for the regulation of the use of opinions in the scholastic tradition that two contradictory opinions could both simultaneously be considered probable. Hence, propositions p and non- p could concurrently be treated as probable.⁶¹ This was often the case if logically incompatible opinions, such as ‘the human soul consists of one form’ and ‘the human soul consists of many forms’ were held by different groups of scholars. Non-aligned bystanders and even the participants in the debate on the human soul could consider both propositions as probable, in particular in light of the endoxical definition of probability. If endorsement by a ‘wise’ person rendered an opinion probable, rival opinions could also be probable if ‘the wise’ (i.e. different ‘wise’ persons) disagreed and propagated alternative opinions.⁶² This possibility of regarding alternative opinions as simultaneously probable was one of the pillars of the persistent and flourishing variety of opinions in scholastic academic discourse. It ensured that all participants in a debate could, in principle, consider all debated opinions as approvable by qualified observers (but of course not in conjunction). Moreover, all familiar translations of *opinio probabilis* allow for both-sided probability. Whether we translate it as a reputable, approved, or plausible

⁶¹See, e.g., Albertus Magnus (1890), Liber I Toplicorum, tract. 4, cap. 2: “Sumuntur etiam per formalia posita in diffinitione dialecticae propositionis: unde et contrariae probabili propositae secundum omnem differentiam probabilis sunt accipiendae: quia contrariae erunt probabiles, si probabile pro contingenti accipitur: quia contingit esse, contingit non esse”. See also Kantola (1994: 29); Schuessler (2014b). Ancient dialectical practices of arguing for both sides (‘in utramque partem’) form a background for medieval both-sided probability which for reasons of space will not be discussed here.

⁶²Note that both-sided probability, the simultaneous ascription of probability to p and non- p is hardly compatible with the three other above-listed notions of probability. This is a further reason to consider endoxical probability as fundamental for the scholastic discourse on the choice of opinions in which both-sided probability is ubiquitous.

opinion, incompatible opinions can at the same time apparently fit these predicates.

It was also generally acknowledged that alternative opinions could stand in an order relation. Specifically, opinions were often considered as either more probable (*probabilior, probabilius*) or less probable (*minus probabilis*) than a counter-opinion. Somewhat surprisingly, assumptions of equal probability were not particularly prevalent in medieval scholasticism but spread rapidly in the sixteenth century. It seems that the order relations ‘more’ and ‘less’ (>, <) dominated comparisons of probability in the Middle Ages, whereas the relation of equality (=) only became prominent in the early modern era. I have pursued the reasons for this shift elsewhere, and will not elaborate on them here.⁶³ In any case, the two opinions that were compared in terms of greater or lesser probability were usually both considered probable. I did not find a single case in which a more probable opinion is compared with an improbable counter-opinion. For the Middle Ages, these observations are most easily understood in a context of choice between *endoxa*. A more probable opinion (*opinio probabilior*) was an *endoxon* that was more likely true (or appeared so to a reasoner) than a competing *endoxon*. In such comparisons, the greater probability of an *endoxon* does not destroy a counter-opinion’s status as an *endoxon*.⁶⁴

The bases for ascribing greater probability to an opinion could apparently vary. As far as authority was concerned, greater probability was associated with the ‘larger and sounder side’ (*major et sanior pars*) in a dispute. This was obviously not necessarily a majority, because ‘sounder’ referred to the quality of authorities, and there could be diverging opinions about the quality ranking, and thus the relative weight of scholastic authorities in probability-generating considerations. There was no official, authoritative, or

⁶³See Schuessler (2016). Note also that an equal balance of reasons played an obvious role in medieval notions of doubt, but – somewhat surprisingly – a verbatim ascription of equal probability was apparently not connected to doubt before 1500.

⁶⁴From the perspective of modern theories of probability or even some formal theories of plausibility (see Jaynes 2003), the scholastic practice of ascribing probability to both sides in a debate creates difficulties. Modern notions of probability satisfy a standard set of axioms which ground the probability calculus. From these axioms (the Kolmogorov axioms), it follows that the probability for the truth of proposition A and the probability for the truth of its negation non-A sum to unity. Epistemic rationality seems to straightforwardly demand that we only assent to propositions we consider more likely true than their negation. Hence, probability p(A) of proposition A to which we can assent needs to be above 0.5. This renders it impossible for two logically incompatible opinions to be both probable if being probable entails the possibility of rational assent. I will come back to these problems in the discussion on early modern scholastic probability.

otherwise prescribed view on many issues, which side of the debate was larger and sounder. That is, the weighted balance of authorities for and against an opinion was often a matter of debate itself, and competent scholastic reasoners could hold different views on it. Their assessment of weighted aggregates of authorities was thus open to a considerable subjective element. Moreover, as Henry of Ghent's suggestions for choosing an opinion demonstrate, a competent scholastic reasoner could weigh in his own reasons in judging the greater or smaller probability of opinions. This added a further subjective element. It is therefore understandable why Marsilius of Inghen (~1335–1396), a notable fourteenth century theologian, remarked:⁶⁵

“I have listed these opinions [with respect to the question whether theology is a science] in detail, so that – given the fact that they are all probable in the minds of those positing them – anyone may choose the opinion which he deems more probable.”

Marsilius' permission is fully compatible with Henry of Ghent's views on choice of opinions and the practice of many scholastics. A ranking of alternative opinions with respect to their probability could thus rely on an observer's combined weighing of reasons and assessment of authorities, given the observer was competent to do so (e.g., because he was a suitably trained scholar).⁶⁶

3.3 Endoxical probability and authority

Critics often ascribe an excessive reliance on authority (*auctoritas*) and external opinions to scholasticism, and endoxical justifications for the adoption of opinions seem to justify this claim. The *endoxon* apparently refers to the opinions of others, whether they are a complete collective, a majority, or 'the wise' (a scholastic user might, however, be one of 'the wise'). The term 'wise'

⁶⁵Marsilius of Inghen as quoted by Rosemann (2007: 132).

⁶⁶It might appear surprising that I emphasize here a competent reasoner's own weighing of reasons, although this possibility plays no significant role in the endoxical definition of 'probable opinion'. Note that this weighing occurs in the determination of *greater* probability, but not in the determination of probability as such. Hence, the agent uses his own assessment of reasons to judge which of several *endoxa* is most probable in his eyes, but not for establishing a set of eligible *endoxa*. More will be said on this point in Chapter 2.

(*sapientes*) might be taken to refer to intellectual authorities and was, in fact, understood in this way in the scholastic tradition. Yet this is not the whole story as far as the authoritative guidance of opinions is concerned. Three medieval notions of *auctoritas* can be distinguished to demonstrate that the situation was more complex.⁶⁷ Hierarchical authority arose from a particular position in an institutional body, such as a kingdom, city, or the Church. This kind of authority did *not* impart greater weight to the opinions of its bearers in truth-directed discourse. Nobody's opinion was to be considered privileged with respect to truth just because the person held a high position in the Church or state. High-ranking persons only had probability-conveying authority if they shared in another kind of authority, namely the teaching authority (*magisterium*) of the Church, and not all high-ranking prelates did. Teaching authority was primarily a power to establish truths of faith, or to speak with a weighty voice in a collective process that established them. Even the most highly positioned persons could only claim teaching authority for a subset of their opinions and in specific contexts. Medieval theology nevertheless appears to some modern observers to be dominated by authority because it accepted the teaching authority of the Church and remained insufficiently critical to the epistemic pretensions of the Church as a collective of inquirers. However, we are presently only concerned with a third kind of authority, the presumed authority of competent reasoners. Teaching authority might be conceived as an expression of the authority of competent reasoners, but the scope of the latter was much broader than the domain of the former. That is, the authority to formulate *prima facie* belief-worthy opinions extended far beyond the ability to participate in the determination of truths of faith. Experience, training, and successful documentation of intellectual abilities were the general prerequisites of an opinion-legitimizing authority. For this reason, masters of an art or science generally possessed authority in matters relating to their area of expertise.

It would, therefore, be dangerous to read too much into the expression 'the wise' (*sapientes*) in medieval definitions of probable opinions. Wisdom is often distinguished from knowledge in the Christian tradition as a higher form of intellectual virtue.⁶⁸ In fact, however, the *sapiens* in medieval uses of the *endoxon* only needs to be a learned and decent person (*homo doctus et probus*).

⁶⁷For a threefold distinction similar to the presently used, see Miethke (1980); and for the different authority of prelates and theologians, see Colish (2006: 1-16); Thijssen (1998), Chap. 5.

⁶⁸See Conley (1963).

The first property ensures that his opinion (it inevitably was a ‘he’) is a fallible indicator of truth, if he veraciously reveals his opinion, and the second property grounds the expectation that his utterances are veracious. We may in many contexts assume that ‘the wise’ who rendered an opinion probable were simply respectable experts in a field of inquiry. John Versor’s edition of Peter of Spain’s *Summulae logicales* corroborates this assumption. The *Summulae* were one of the most widely used textbooks of logic in the Middle Ages, and Versor’s was one of the most prominent versions. In explaining dialectical reasoning from authority, Peter (pace Versor) details that the authority in question is based on the judgment of a wise person in his science (*scientia*). He then adds that an expert (*expertus*) should be believed in his science.⁶⁹

Versor’s conclusion seems to clearly indicate that experts, also living ones, could be considered as authorities. That is, authority as relevant for choice of opinions was not restricted to ancient Fathers of the Church, ancient philosophers, or a few canonized scholastic theologians. Anyone with an excellent intellectual track record and suitable training could be invoked as an authority rendering an opinion eligible. This is not to say that every expert had the same authority as Aristotle or Augustine. Authority, like probability, could be greater or smaller. It is widely assumed today that the weight of ancient authorities was greater in the scholastic tradition than that of scholastic theologians. In fact, there is some evidence that this view is accurate, at least for the period before the seventeenth century (and before the rise of probabilism, see Chapter 6). We should not, however, be surprised if the weighing of epistemic authority in the Middle Ages was more differentiated, allowing for a superiority of scholastics over ancient thinkers in certain contexts.⁷⁰ In any case, it would definitely be a mistake to expect only ancient authorities to matter in medieval considerations of probability and the choice of opinions.

⁶⁹Peter of Spain (1572: 170): “Auctoritas ut hic sumitur est iudicium sapientis in scientia sua ... unicuique experto in sua scientia credendum est”. This sentence motivated me not to follow Rexroth’s (2012) narrower understanding of the term *expertus* (pertaining to practitioners of an applied art). The parallelization of *sapiens* and *expertus* in the quote (which Rexroth does not mention) suggests that all specialists who spoke with authority might be called experts.

⁷⁰Consider, for instance, Roger Bacon’s criticism of the treatment of a contemporary author (most likely Albert of Cologne) as if he were a classic (see Bianchi 1999: 72; Weisheipl 1980: 14). Although Bacon preferred the ancients, his intervention shows that more than a few colleagues elevated a contemporary author to the highest intellectual rank. It is also relevant that the metaphor of dwarves on the shoulders of giants is medieval (see Merton 1965).

None of this disproves the allegation that medieval thought was authority-prone. After all, neither good reasons as such nor the reasons a person has for assenting to a proposition figure in the definition of an *endoxon*. The endoxical reasons for choice of opinions remain external, based on common acceptance or the authority of experts ('the wise'). The common translation of *opinio probabilis* as an approved, approvable, or reputable opinion reflects this background. On closer inspection, however, differentiation is called for. To begin with, common acceptance and propagation by 'the wise' were grounds of probability insofar as they were considered indicators of truth, not because of a general tendency to approve the opinions of revered or powerful persons. Truth-directedness was already implicit in Aristotle's understanding of the *endoxon* and represented a precondition for accepting *endoxa* as plausible starting points for a truth-directed inquiry.⁷¹ Translating *opinio probabilis* as a reputable or approved opinion has the disadvantage that it veils this fact.

Not even the claim that the reasons for belief represented by endoxical probability come from others, and not from the person who wonders whether to adopt an opinion, is beyond dispute. Scholastics often promoted their own opinions as more probable than others on the basis of their own arguments. As shown, Henry of Ghent already emphasized the role of better reasons in the choice of opinions. This seems to indicate that the probability of opinions was often judged on the basis of an evaluator's own reasons and not on external grounds. We should, however, avoid reading too much into such observations. They usually relate to claims of greater probability, that is, of considering a proposition as being more probable than another. More probable (*probabilior*) opinions are always also simply probable. Precisely for this reason it is possible to understand ascriptions of greater probability as referring to a reason-oriented selection from a set of probable opinions, that is, as an attempt to choose the *endoxa* that are best supported by truth-directed reasons. In this interpretation, the externalist qualification of probable opinions remains untouched, because a person's reasons for considering an opinion as being more probable than another operates on a set of *endoxa*.

Moreover, a claim of probability for one's own opinion is also not reliable evidence of a break with the externalist character of endoxical justification. The authors who made such claims were usually academic masters. Hence, it remains unclear whether they considered their own

⁷¹For the link between *endoxa* and truth, see Haskins (2004: 5); Irwin (1990); Renon (1998: 104).

opinions as probable because of the reasons they adduced or because they were masters, entitled to consider themselves experts. The latter would still be an external reason for considering one's own opinion as probable. Hence, it is difficult to debunk the view that medieval practices of choosing opinions were at their root externally oriented and authority-bound. This view is buttressed by early modern scholastics, who much more accurately than their medieval precursors, distinguished between reasons and authority as grounds of probability. The *endoxon* in seventeenth-century scholasticism was typically treated as an expression of a specific authority-based probability (see Chapter 4). It therefore seems appropriate to regard the medieval understanding of probable opinion (but not of probability as a whole) as mainly authority-based.

However, it does not follow that the choice of opinions according to medieval regulations was primarily guided by authority. The difference between endoxical opinions and a choice between them may be inconspicuous, but it is important nonetheless. The choice of an opinion was often guided by an ascription of greater probability (for alternatives, see below). As already indicated, a considerable latitude for an author's own weighing of reasons existed for judgments of greater or smaller probability. Greater probability was not generally ascribed via collective judgment in matters that were open to debate. This is a reason to reject the worst misperceptions of scholasticism as utterly stifled by the fetters of authority.

4. 'Medieval Tutorism'

We have so far focused on the epistemological side of choosing opinions. However, the main objective of medieval regulations on choice of opinions was the avoidance of sin, a practical goal that raised many ethical issues.⁷² This is not to say, of course, that epistemological constraints were irrelevant for avoiding sin. Scholastics were aware that epistemology (including social epistemology) and ethics could not be neatly separated. To account for this interdependence, we need to discuss the moral framework of choice of opinions—which has already been broached at various points—in more detail, and risk occasional repetition of what has already been said.

⁷²See Biller and Minnis (2013); Firey (2008); Murray (1998).

Particularly relevant for the moral guidance of agents are medieval norms for dealing with uncertainty about the sinfulness of actions (in modern terminology, ‘moral uncertainty’). Agents sinned if they failed to observe due diligence in their choices of opinions or made too risky choices. The theological basis for sin-related risk avoidance was the biblical saying: ‘He who loves danger perishes in it’.⁷³ This saying was interpreted to imply that risking to commit a capital sin was already a capital sin. Consequently, the correct avoidance of sin-related risks was a key concern of scholastic handbooks for confessors, and it was, above all, significant for handling disagreement concerning the sinfulness of actions.

In the tradition of Christian morality, conscience (*conscientia*) is the human faculty entrusted with applied moral judgment on right action.⁷⁴ The scholastics further assumed that although unfailing moral insight appears possible for the highest principles of natural law and morality, no infallible conclusions can usually be drawn from these insights for specific problems of moral action. That is, moral judgment often remains uncertain at the applied level. It was often unclear, for instance, whether a particular financial transaction or military campaign was morally licit or not. The respective disagreements persisted even between honest, truth-seeking theologians and lawyers after thorough inquiry, and they were often not authoritatively decided by the Church for or against one of the sides. In consequence, they produced practically irresolvable moral uncertainty. Agents could not know (in the strict epistemological sense of the word) which action was right or, on the contrary, sinful. At the same time, however, medieval doctrines of conscience regarded a safe (*tutus*) or certain (*certus*) conscience as a precondition for right moral action (as will soon be explained in more detail). Without reaching safety or certainty for one’s judgments of conscience, agents fell prey to the verdict ‘He who loves danger perishes in it’. How then was it conceivable to follow opinions in moral action without perishing in hell? After all, opinions were uncertain by definition because their holders or followers feared (and thus implicitly assumed) that their opinion might turn out wrong. A solution to this problem could only come from a distinction between kinds

⁷³“Qui amat periculum, in illo peribit”; Ecclesiastes 3: 27.

⁷⁴On the scholastic conscience, see Godman (2009); Hofmann (1941); Kirk (1927); Langston (2015); Lottin (1948); Murray (2015); Potts (1980). Schuessler (2018) compares scholastic and Renaissance views on conscience. Mindful of limitations of space I only discuss what is absolutely indispensable for the present inquiry with respect to the vast medieval body of theorizing on matters of conscience.

of certainty (and uncertainty). The epistemic uncertainty involved in opining need not be resolved in order to attain a moral safety or certainty for actions that engendered blamelessness and precluded sinning. For the latter, it sufficed when a conscience could not justly be blamed for any wrongdoing, that is, when it had done what it ought to to follow right reason. Accordingly, ‘safety’ (*securitas or tutitas*) or ‘certainty’ (*certitudo*) in conscience was ascribed when an agent followed the right rules for action under moral uncertainty, the objective risk of violating a divine precept notwithstanding. Safety of conscience was thus achieved at the level of moral ‘risk management’, a ‘reflex’ level of conduct as it came to be called in the seventeenth century. Agents who properly managed moral risks, including a reasonable search for information, forestalled sin regardless of the (epistemically uncertain) objective rightness or wrongness of their actions. This was a consequence of the association of sin with the internal attitudes of a person in medieval theology rather than with her mere outward actions, a process that had already become prevalent in the twelfth century.⁷⁵ For choice of opinions, the focus on subjective right- or wrongdoing implied by the interiorization of sin meant that an agent who strove for a safe conscience had to *ceteris paribus* at least adopt a probable opinion, or an opinion whose probability he was entitled to presume. The certainty arising in this respect from proper proceedings was called ‘probable certainty’ (*certitudo probabilis*), or ‘moral certainty’ (*certitudo moralis*) from the fifteenth century onward.⁷⁶

The first author to speak of *certitudo moralis* as arising from the correct adoption of probable opinions (in fact, coining the term *certitudo moralis*) was apparently the eminent French theologian Jean Gerson (1363–1429).⁷⁷ However, Gerson states that moral certainty suffices because, as Aristotle had claimed (see above), maximal certainty often could not be attained in contexts

⁷⁵See Blomme (1958), 275-289; Brower and Guilfooy (2004: 291-299); Lottin (1948), Vol. III, part 9 and 10.

⁷⁶On *certitudo probabilis*, see Gardeil (1911). Moral certainty was the certainty often succinctly demanded for practical judgments of conscience in early modern and modern Catholic moral theology: “Ad recte operandum requiritur iudicium practicum moraliter certum” (Laymann 1626: 7); “Sola conscientia certa est recta regula morum” (Gury 1857: 11). For the early modern conscience, see Braun and Valance (2004); Kittsteiner (1995); Leites (1988); Myers (1996); Reinhardt (2016); Schuessler (2003, 2006a).

⁷⁷See, e.g., Gerson (1706: 175), Vol. 1, ‘De consolatione theologiae’: “Vis igitur quicquam securus agere? Certus sis illud esse bonum, neque virtuti contrarium. Sed refert qua certitudine; sufficit nempe certitudo moralis qualem notavimus ut vel non sis in peccato dum facis quod in te est, aut saltem peccatum non incurris novum per temeritatem, exempli gratia celebrandi; orta est enim ex diligentia tuae praeparationis excusatio”. For Gerson as the first who spoke of moral certainty, see Franklin (2001: 69); Grosse (1994: 83); Knebel (2000: 55).

of human agency.⁷⁸ Moral certainty thus has a double meaning in Gerson. On the one hand, it stands for the maximally attainable epistemic certainty in contexts of human agency, on the other hand, it signifies certainty of avoiding sin. These understandings do not co-incide because security of conscience, which refers to the latter, could even be achieved below the level of maximally attainable certainty in moral matters. Sin avoidance did not require the maximal certainty that was possible in practical moral matters. The informational and cognitive requirements for the right management of moral uncertainty were usually much less demanding for ordinary agents than for the top experts of moral theology. Hence, if the latter's efforts represented the best that could be achieved, moral certainty for the former required significantly less. Except in special cases it sufficed to follow a probable opinion, and although the notion of opinion implied a lack of epistemic certainty, the choice of a probable opinion produced full moral certainty.

However, this basic assumption becomes insufficient for moral guidance if an agent is confronted with a plurality of probable opinions. In such cases, one might assume that differences of probability translate into differences of safety. That is, the most probable opinion in a plurality of opinion from which an agent could or had to choose would also be the safest, and thus in final consideration a safe choice. In fact, from a scholastic point of view, the intellect (that is, cognitive assessment) leaned towards the opinion that was best furnished with reasons for truth or buttressed by better or more authorities. In other words, the intellect naturally preferred the opinion that appeared most probable. It would facilitate moral choice if the most probable opinion were also the safest opinion. Nevertheless, this was *not* generally assumed in scholastic moral theology.

The 'safer side' (*tutior pars*) of an alternative of choice usually signified 'remoteness from sin', that is, the side which engenders the least grave sin if the choice turns out to be sinful at all. This understanding can be rendered concrete against the background of catalogs of sins, which could be gleaned from many genres of theological works. The absolute and relative gravity of a sin could be established with the help of such catalogs. The safer side of a choice alternative was then the side which risked the least grave sin according to the catalog. Judgements of safety were, of course, facilitated if one side of an alternative did not involve any risk of sinning at all. For instance, medieval

⁷⁸For the reference to Aristotle's claim, see Gerson (1706: 324), Vol. 3, 'De praeparatione ad missam'.

theologians were not sure whether fixed interest loans were usurious and thus sinful if they were made by widows whose likelihood of avoiding poverty depended on such investment opportunities (a concession to the virtue of charity, as it seems).⁷⁹ A widow, who placed funds with a monastery or merchant, who managed the assets for her—legally, a loan—and payed her a fixed annual percentage of the capital, thus *prima facie* incurred some moral risk. Moreover, not lending the money at interest was clearly morally risk-free and safe. The safer side for the widow’s conscience (and the loan-offering abbot’s or merchant’s) was therefore to refrain from interest-bearing investments, because it was controversial whether they were sinful in the eyes of God, and it might turn out on Judgment Day that they were indeed sinful or the Church might recognize them as sinful at some future council. This was the ideal case for moral ‘safety first’ considerations: an action that was obviously not sinful was obviously safer than all actions that might be sinful, even if it was unclear whether they are sinful.

Let us now assume that a majority of moral theologians or in any case the more renowned of them consider interest-bearing loans by widows as morally licit. A dissenting minority of competent moralists also exists and therefore the licitness of such loans is at best a more probable opinion and not known with certainty. (For the moment, I bracket the possibility that an expert only personally regards an option as more probable, of which more is said below). In this case, greater probability and greater safety come apart. It is more probable than not that lending money for interest is morally permissible for a widow; yet it is also less safe to do so. Is the widow nevertheless morally certain and non-blameable if she follows the side which is more probable and lends money at interest to a monastery or merchant?

For an answer to this question, it needs to be understood how the famous ‘magisterial rule’ (*regula magistralis*) was to be applied by medieval confessors. The magisterial rule was an action rule for the epistemic state of doubt (*dubium*) demanding: ‘In doubt, the safer side is to be chosen’ (*In dubiis pars tutior est eligenda*). This ‘safety first’ rule came into use in the early thirteenth century, and it was subsequently accepted by all medieval scholastics, regardless of their scholarly allegiance and affiliation to religious orders.⁸⁰ It was the common rule of scholastic masters, hence the name *regula*

⁷⁹For the case of widow investors, see Azpilcueta (1616: 233), n. 34; Grice-Hutchinson et al. (1998).

⁸⁰See Deman (1933: 421); Schuessler (2003), Chap. 1.

magistralis. Clearly, if the rule applied in the widow's case, only refusing to lend at interest was morally permissible. Moreover, one might think that the rule applies because the widow or her moral advisors should be in doubt about the permissibility of lending for interest. After all, the pro-permissibility view was only a probable opinion (albeit a most probable one) and therefore not certain and beyond doubt. It is, indeed, possible to interpret the fear of error that an opinion entailed as a form of doubt. Every holder of an opinion—and, of course, also of a probable one—thus somehow has doubts concerning the opinion's truth. This would relinquish the choice of opinions to a rigoristic and extremely restrictive morality, because moral agents would be obligated to avoid even the slightest risk of sinning or non-compliance with divine law and the precepts of the Church. We will see, however, that it would be wrong to ascribe such rigorism to the medieval Church and the scholastic doctrines on which it relied.

Unfortunately, the modern term under which the respective doctrines are summarized quite easily lends itself to rigoristic misunderstandings. The reign of the 'safety first' rule in the Middle Ages is often called *medieval tutorism*. Tutorism as a designation for a doctrine of moral risk avoidance was first coined in the late seventeenth century. At the time, and above all in the eyes of its opponents, it signified the rigoristic extreme of demanding a maximization of moral safety, regardless of the probability (unless there was certainty) of an action's permissibility. The combined phrase 'medieval tutorism' arose much later. It was apparently introduced by French scholars in the twentieth century to denote the strong role which the 'safety first' rule played in medieval scholasticism. However, Odon Lottin and Thomas Deman, the term's main early users, were well aware of the significant differences between medieval tutorism and tutorism without byword.⁸¹ These differences are not always heeded in more recent references to medieval tutorism. Robert Maryks, for instance, claims that the tutorism of the great thirteenth century scholastics demanded that an agent in doubt "should for safety's sake follow the law rather than the choice of his or her conscience".⁸²

⁸¹For the ascription of tutorism to the Middle Ages, see Deman (1936); Lottin (1933). For the difference to seventeenth-century tutorism, see Deman (1936: 549).

⁸²Maryks (2008: 2). Tutino (2018: ix) also contrasts probabilism with a tradition of strict application of moral rules, insinuating that a uniform moral-theological tradition in this respect existed in the Middle Ages. Höpfl (2004: 183, Fn 50) is even further off the mark writing: "Probabilism accounts a casuistic opinion as 'probable' (i.e. capable of proof, or approbation, permissible) if an 'authority' can be quoted in its favour; tutorism, the contrary doctrine, asserts that those opinions should be adopted for which the larger number of authorities can be cited".

This is misleading, because a morally certain choice of conscience would be incompatible with being in doubt and thus deprive the ‘safety first’ rule of its application. Of course, an agent who assumed that his planned action, based on conscience, violated moral law, was required to ‘discard the conscience’ (*conscientiam deponere*) and change his moral views. But this case again does not involve doubt, because the agent would then realize and believe that his judgment of conscience and divine law are in conflict.

This reveals that it is important to look more closely at the question how medieval scholastics understood the condition of doubt in the rule ‘In doubt, the safer side is to be chosen’. A series of denials from the first half of the fifteenth century documents awareness of the problems of excessive rigorism. The great moral theologians Jean Gerson (1363–1429), Johannes Nider (c. 1380–1438), and Antonino of Florence (1389–1459) insisted that the ‘safety first’ rule was not a general prescription for all kinds of probable reasoning or moral uncertainty. In particular, it does not impugn the legitimate choice of a more probable opinion, because an agent who with good reasons considers an opinion to be more probable than its alternatives is not in a state of doubt that triggers the ‘safety first’ rule. Gerson highlighted this approach by insisting that the *regula magistralis* was only binding when in vehement doubt, which “more, or at least equally induces the mind to believe that something is morally illicit rather than licit”. The case was different if the mind leaned more towards the belief that something was right, although it did not possess evident or unwavering certainty.⁸³ That is, the ‘safety first’ rule was only mandatory if the agent lacked sufficient reasons to assume that the opinion allowing his or her action is more likely true than not. In cases in which the permissibility of both sides was at issue, the *regula magistralis* only had to be applied in cases of roughly balanced doubt, because otherwise at least one side would defy the condition that the mind is ‘induced more or equally to believe in its illicitness’.⁸⁴ In subsequent centuries, many authors referred back to Gerson, Antonino, and Nider as leading authors who had clarified the scope

This is a misunderstanding of probabilism, but a larger one of tutorism, because the larger number of authorities was never a decisive criterion in early modern casuistry, see Chapter 7.

⁸³Gerson (1706: 325), Vol. 3, ‘De praeparatione ad missam’, n. 425: “regula haec magistralis intelligitur de dubio tali quod est vehemens et magis aut saltem aequae inducit mentem credere quod est moraliter illicitum sicut quod est licitum. Secus est ubi mens plus inclinatur et iudicat quod est licitum quam illicitum, quamvis non habeat usquequaque certitudinem evidentem aut fixam, quia nec hoc ipsum requiritur”. On Gerson, see McGuire (2005).

⁸⁴See the specification of Guillaume d’Auxerre (1500), lib. 2, tract. 30, cap. 3, fol. 105vb: “Dubium enim tale est quod habet equales rationes ad hoc quod sit et quod non sit” (see also Lottin 1933: 295), which became canonical for centuries after Gerson had highlighted it.

of the ‘safety first’ rule. Silvester Mazzolini (de Prierio), the author of a famous handbook of confessors, perhaps best summarized the underlying message:⁸⁵

“But understand that in cases, in which a safer opinion is notably less probable, it is not necessary to choose it, because in such cases the condition of doubt does not apply.”

Mazzolini also clearly spelled out that an agent might legitimately choose a notably more probable opinion over a safer one. In such cases, the agent possesses an opinion and is no longer in doubt, so that the ‘safety first’ rule need not be applied. The ‘safety first’ rule is only obligatory if an agent cannot reasonably and legitimately circumvent the epistemic state of doubt for which lack of assent is characteristic. Doubt is therefore only unavoidable from a scholastic perspective if the reasons for the truth of alternative opinions appear more or less equally balanced to the agent. Note that this does not preclude agents from preferring ‘safety first’, even against opposing greater probability; the point is only that they do not have to. It was permissible not to maximize safety, even if many theologians regarded it as good counsel (*consilium*) to follow the ‘safety first’ rule. Under these premises, the conditions for a mandatory application of the ‘safety first’ rule were a far cry from the rigorism that has been imputed to it.

However, it is possible to regard the position of Gerson and his followers Antonino and Nider as an important innovation of the fifteenth century.⁸⁶ In this case, it stands for a new period of medieval attitudes to the use of probable opinion, which already foreshadowed developments in the sixteenth century. Many of the circumstances under which Gerson wrote support such a view; above all, the Great Western Schism (1378–1417) can be considered an unprecedented incursion of uncertainty in Latin Christendom, engendering new attitudes to moral uncertainty. Much speaks for considering the early fifteenth century to have been a watershed in Catholic moral theology. However, with respect to the ‘safety first’ rule, no clear evidence of

⁸⁵Mazzolini (1569), verbum ‘De dubiis facti et iuris’, q. 2, prima: “Sed tamen intellige quod si debet casus quod opinio securior sit minus probabilis notabiliter non est eligenda necessario: quia [...] cessat ratio dubii” (my translation). On Mazzolini, see Tavuzzi (1997).

⁸⁶See Deman (1936: pp. 444); Kantola (1994: pp. 112). I choose the word ‘follower’ here to signify how important Gerson was for the course of moral theology in the fifteenth century – and beyond.

a new spirit of its application has emerged so far. One main problem is that neither Gerson nor Antonino or Nider portrayed their use of the rule as an innovation. Of course, scholastics tended to build on old roots for their views, and many of their claims and analyses were more innovative than they would admit. But even if we take this into account, nobody has so far demonstrated that the restriction of the ‘safety first’ rule to equally balanced doubt was indeed a new development.

Gerson explicitly considered his own contribution as a clarification of the ‘safety first’ rule’s longstanding use only, tracing his understanding of it back to Guillaume d’Auxerre (1145–1231).⁸⁷ Hence, Gerson claimed that the ‘safety first’ rule had always been intended and used in a non-rigoristic way. The historical correctness of this view can be a matter of dispute. James Franklin (following Odon Lottin) neatly summarizes the respective possible views of thirteenth century scholastics, of which one takes doubt to be a suspension of assent in a roughly equal balance of reasons, whereas others assume a less specific notion of doubt.⁸⁸ Franklin’s mix of statements from the thirteenth century suggests that some authors might have held different views on the restriction of the mandatory scope of the ‘safety first’ rule or simply failed to clearly understand it. Both possibilities suggest that some theologians may have applied the rule more rigoristically than others. Note, however, that there is no evidence of a restrictive application of the ‘safety first’ rule by Aquinas in Franklin’s account. Moreover, Henry of Ghent’s rules for picking opinions in controversies (see above Section 1) do not require to rank safety over greater probability. This should suffice to show that the *regula magistralis* at least lacked a uniform rigoristic application in the thirteenth century. After Gerson’s widely accepted clarification was published, apparently no leading moral theologian endorsed a rigoristic understanding of the ‘safety first’ rule before the second half of the seventeenth century. The great scholastic Francisco Suárez (1548–1617) was probably the first notable author who imagined the use of a rigoristic tutorism.⁸⁹ He conceived it as a mere logical possibility that nobody endorsed in earnest, because he named no authors who supported this position. Had any notable medieval scholastics been

⁸⁷Gerson (1706 : 325), Vol. 3, ‘De praeparatione ad missam’, n. 425: “respondeo cum domino Guillelmo Altissiodorensi quod regula haec magistralis intelligitur de dubio tali quod est vehemens et magis aut saltem aequae inducit mentem credere quod est moraliter illicitum sicut quod est licitum”. As quoted in Fn 63, Guillaume d’Auxerre (i.e., Altissiodorensis) regarded doubt with respect to the safety first rule as an equally balanced uncertainty.

⁸⁸Franklin (2001: pp. 67); Lottin (1933).

⁸⁹Suárez (1856), vol. 4, disp. 12, sec. 6, n. 5.

rigorist tutorists in Suárez' opinion, he certainly would have referred to them, not least because he listed supporters for more moderate positions.

There is thus no clear evidence that medieval tutorism had been a rigorist doctrine before Gerson. It is only clear that nobody of relevance understood it rigoristically for an entire quarter millennium after Gerson, who deserves (and incurred) fame as having made explicit what needed to be explicitly stated. This underlines the importance of early fifteenth century authors for scholastic views on the use of probable opinions. Yet claiming that medieval tutorism was rigoristic before Gerson helps perpetuate old prejudices against the scholastic tradition. In this respect, the absence of clear evidence for an overwhelmingly rigoristic use of the 'safety first' rule should count in favor of the accused. Hence, we should accept Gerson's assertions of continuity, unless a convincing argument can be made against them, but no such argument has emerged so far.

Under these premises, medieval tutorism amounted to a double-barreled approach to the choice of opinions, which left agents significant leeway for choice. Opinions that could soundly be considered as being more probable than others could be chosen if they were not explicitly prohibited by the Church (and they could then not legitimately be considered more probable). Strict moral risk aversion only became mandatory if an agent was unable to soundly consider one of several eligible opinions as more probable.⁹⁰ It seems somewhat misleading to refer to this arrangement as tutorism because it does not represent a general safety-first consideration. Yet the tag 'medieval tutorism' is nevertheless so well entrenched in the literature by now that I do not want to replace it, having at least argued against a too narrow interpretation. A non-rigoristic understanding of medieval tutorism is important, not least because it leaves room for guidance based on epistemic reasons. Minimizing sin potential often runs counter to the guidance offered by the best available epistemic reasons, because an action with a very small recognizable probability to be morally illicit may still amount to a great sin if it turns out to be sinful in final reckoning. An overly rigorist

⁹⁰It is difficult to refrain from drawing parallels to modern decision theory, although medieval tutorism and the latter rely on different conceptualizations of probability and uncertainty. Modern decision theory also distinguishes between probability-oriented decision making and decision under uncertainty (see, e.g., Luce and Raiffa 1957: 13). A rule of risk aversion, the maximin rule, is usually only thought to apply in the latter case, although even there it is not prescribed as the only possible rule for rational conduct. Maximin implies that the option with the least loss potential is the preferred one. A structural parallel between modern and premodern decision rules under uncertainty seems to therefore exist.

(mis)understanding of mainstream medieval regulations on choice of opinions, therefore, suggests that they had scant ties to epistemology, but were part of a narrowly conceived moral decision theory. In contrast, a suitably complex picture of the respective norms indicates that epistemological issues (including social epistemology) could prevail with respect to the choice of probable opinions, as long as moral restrictions were not violated with certainty.

5. A medieval pluralism of opinions

Scholastic attitudes on a plurality or variety of alternative opinions have been discussed in the previous sections without reference to the concept of pluralism. This seems acceptable because the concept of pluralism only came into use in the twentieth century. It originated as an antagonist to the concept of monism and initially signified a metaphysical pluralism of worlds, and later a pluralism of political movements or religions.⁹¹ In all these contexts, pluralism denotes the reflected acceptance of a plurality of items that are not reducible to an underlying singular one.

However, modern notions of pluralism need not bar us from reflecting on the applicability of a wider concept of a pluralism of opinions to medieval or even earlier societies, or their intellectual discourses (see Introduction). At least some core elements of such a pluralism emerged after the rise of scholasticism in the twelfth century, as this chapter has shown. Medieval approaches to the choice of opinions:

- (a) acknowledged a persistent plurality of opinions in many fields of intellectual activity,
- (b) justified the choice of alternative opinions by different agents,
- (c) acknowledged a plurality of opinions that mattered, not only for medieval intellectual life, but also for practical conduct and political decisions,
- (d) offered critical discussions of the rules and entitlements for choosing opinions.

⁹¹On the history of pluralism, see Baghrarian and Ingram (2000), Introduction; Breitling (1980: 1-19).

On the basis of these points, it is not farfetched to speak of a medieval pluralism of opinions on which scholastic authors reflected. Plurality and choice were, of course, restricted in matters of faith and morality whenever an opinion came close to a position that was prohibited by the Church. The myriad different views of practical moralists (casuists) in the Middle Ages and the many not interdicted theological debates show that even in matters of faith and morality, a significant plurality of eligible opinions was considered legitimate.

Yet why should we want to move from plurality to pluralism? What do we gain from this conceptual shift? More than a mere reference to plurality, the concept of pluralism indicates that the medieval plurality of opinions was not a fortuitous fact. It was characteristic of scholasticism. Scholasticism, with its emphasis on disputes and academic competition, was a diversity and disagreement-producing machine. Surely, the resulting diversity could be reduced by authoritative decisions of the Church. But at the very time an opinion was prohibited, scholastic debate went on to generate new ones, often by ramifying a debate, which is a way to pluralize opinions. Scholastics were aware that with respect to the majority of debated issues, this process would not end soon and give way to consensus – hence, Marsilius of Inghen’s above-quoted readiness to offer a menu of opinions from which a competent reasoner could pick. This is indicative of a systematic choice-oriented approach to a plurality of eligible opinions, which deserves designation as an ‘-ism’.

Another reason for addressing pluralism and not just plurality arises from the quasi-legal character of scholastic doctrines on choice of opinions. The applied scholastic discourse of conscience as a whole was pervaded by juristic principles and rules. This should not come as a surprise because with respect to sin and sin avoidance the judgment of moral action was modeled on a law court. Some of the rules in question specified what agents ought to do, others spelled out entitlements. Scholars, for instance, possessed a prima-facie entitlement to endorse any probable opinion which they considered as more probable than all alternatives. Merchants were entitled to enter into any type of contract that could be considered more likely licit than not by their counsellors of conscience (usually a confessor or a renowned theologian who was willing to issue a certificate of moral correctness). Such prima-facie entitlements, especially with respect to the use of opinions in academic

discourse, are precursors of what we today call ‘discursive rights’. It is of significance that the roots of discursive rights reach back to medieval scholasticism, but we should again not be too surprised by that fact. The origin of modern subjective rights has been traced back to various medieval debates, such as, for instance, the Franciscan controversy over poverty in the fourteenth century.⁹² Why then should discursive rights not also have medieval roots? In any case, the existence of such rights, in whatever fledgling form, indicates that the concept of a pluralism of opinions might correspond to the Middle Ages.

Pluralism should, in the present context, also be distinguished from relativism. Relativism is often ascribed when persons encounter others with a different cultural background from their own. In such cases, a fundamental difference of values often exists, or even problems of understanding the values or presuppositions of the other. Not for nothing is the rise of relativism in European thought sometimes linked to the voyages of discovery at the outset of the early modern era.⁹³ If relativism came into play in Montaigne’s essay about cannibals, why not speak of relativism in the scholastic tradition? Pluralism differs from relativism, among other things, by referring to a disagreement that is not grounded in a translation problem or in cultural differences.⁹⁴ This was typically the case for the plurality of scholastic opinions, because scholastics, of course, had no problem understanding each other. They had undergone the same kind of training, and usually had the same relevant cultural background and a shared terminology. For this reason, we should ascribe pluralistic disagreement to them, but certainly not a relativistic difference of conceptual schemes.

It is, of course, possible to tie the concept of pluralism so closely to its modern versions that it cannot be applied to medieval scholasticism. I have already argued against such an approach in the introduction to this book, mainly with respect to the claim that pluralism should be conceptually linked to non-violence, or at least physical non-violence, towards dissenters. It might, for instance, be argued that public blame, social exclusion, or even economic disadvantages for persons who hold politically incorrect opinions are compatible with a pluralism of opinions, but not imprisonment, physical punishments, or execution. Against this view, which adds extraneous criteria

⁹²On the rise of subjective rights, see, e.g., Brett (1997); Tierney (1997).

⁹³See Schiffman (1991).

⁹⁴On the difference between pluralism and relativism, see Baghramian (2005: pp. 172, 304); Crowder (2002: 3); Galston (2002: 5).

to a pluralism of opinions, it should be upheld that acceptance of diversity entails neither toleration of unrestricted diversity nor non-violence towards its unwanted expressions. This is, of course, no justification for intolerance, but a plea to not confound toleration and pluralism. Pluralism is best identified by structural features, such as reliance on a pluralistic ‘space of the reasonable’, without assuming that this space should have the shape and extent considered adequate today.

6. Conclusion

The existence of a plurality of opinions and the need to choose between them was recognized early in the scholastic tradition. The term opinion signified an infirm kind of assent that implied recognition of its own fallibility. Only probable opinions or certainly true beliefs were *prima facie* eligible for reasonable assent and adoptable as premises of moral action. ‘Probable’ in this respect primarily meant—following Aristotle—‘held by all, a multitude of, or knowledgeable persons’, and can therefore be translated as approved, approvable, reputable, or plausible. According to this characterization, two logically incompatible propositions (or opinions) could both be probable at the same time. Hence, further considerations were necessary to guide the choice of opinions.

Remoteness from sin (*tutitas*) was one of these further considerations. It was prescribed under conditions of doubt (*dubium*) and embodied in a ‘safety first’ rule of moral risk aversion. However, this rule was only mandatory in cases of equally balanced doubt and could be avoided if an agent had solid grounds to consider one side of an alternative to be more probable than the other. Judgments of greater probability could be made on the basis of weighted reasons or the weight and number of supporting authorities, leaving room for subjective weighing by competent reasoners. Note that the explicitly reason-specific aspects of judgments of *greater* probability do not necessarily change the meaning of probability. Probability still relied on the Aristotelian notion of a well-reputed opinion (*endoxon*). A competent agent could, accordingly, choose the *endoxon* he or she considered most likely to be true, which then would be the most probable opinion for the respective agent. On the whole, a competent agent

could legitimately prefer a more probable opinion that was less safe (i.e. had a higher sin potential) to a less probable but safer alternative. This system of regulations, which today is—infelicitously—called ‘medieval tutorism’, specified that in case of doubt, the safer side had to be chosen; in case of different probabilities, an agent could choose to follow the more probable *or* the safer side. These were prima-facie rules that in specific cases could be superseded by other considerations.

It is possible, and as I argue, adequate to call the medieval practice of dealing with a plurality of opinions a form of pluralism. If the concept of a pluralism of opinions signifies a systematic and consciously reflected engagement with an at least practically irreducible plurality of opinions, then such a pluralism existed in the Middle Ages, and it was structured by scholastic rules on choice of opinions. The respective pluralism of opinions was, of course, often brutally constrained by the bounds of faith. But within these bounds, a variety of opinions was tolerated and even expected to arise. The practices and institutions of scholasticism, an intellectually competitive paradigm, fostered a variety of academic opinions on many subject matters. It is a standard anti-scholastic custom to bemoan its never ending, deeply ramified disputes, but in a more positive vein, they are proof of a lively pluralism of opinions.

Chapter 2: The Road to Probabilism – A New Doctrine on the Use of Opinions

This chapter spans the roughly one hundred years from the end of medieval scholasticism to the momentous changes of the late sixteenth century in scholastic attitudes to the use of opinions. The crucial event in question is the introduction of a new approach to the choice of opinions, first referred to as *doctrina probabilistis* and known as probabilism by the late seventeenth century. Probabilism was first formulated in 1577 by Bartolomé de Medina, a Dominican professor at the University of Salamanca. Attitudes towards the invention of probabilism differed considerably. Catholic moral theologians rapidly embraced the doctrine as mainstream, but in the course of the seventeenth century, profound hostility towards probabilism began to arise. Modern scholars often endorse this hostile point of view, perceiving probabilism, if at all, as a recipe for rampant casuistry and loose morals – a Baroque aberration in moral theology. A few scholars, by contrast, speak of a revolution in the scholastic discourse of probability.¹ The concept of revolution has recently come under fire, even with respect to the scientific developments from Copernicus to Newton that uprooted the medieval Aristotelian worldview. It is apparently not advisable to use the word revolution for scholastic innovations, not least because scholastics abhorred the language of radical new beginnings. But referring to the rise of probabilism as revolutionary emphasizes the significance of the changes it engendered. New scholastic definitions of probability emerged, which superseded its old Aristotelian endoxical notion. At the most basic level, probabilism did not only equip casuistry with new principles, it also changed the mode of operation of scholastic pluralism of opinions as a whole. Even if these developments did not amount to a revolution, they were nevertheless highly significant in their own right. The present chapter looks at their beginnings.

At the outset, however, a succinct overview of the developments is presented, which bridge the gap between the final years of the Middle Ages and the invention of probabilism. Probabilism did not arise immediately out of medieval scholastic thought. The fifteenth and sixteenth century witnessed

¹See Maryks (2008: 49, 105); Turrini (1991: 174).

some remarkable developments with respect to the discourse on probability and scholastic thought in general. These developments need to at least be outlined to better understand the subsequent innovations. Moreover, scholasticism was not alone in its preoccupation with probability and uncertainty. Ancient skepticism experienced a renaissance, games of chance began to be dealt with mathematically, and Renaissance humanism found alternatives to Aristotelian concepts of probability in rediscovered ancient texts. The question deserves to be asked whether these developments had any influence on the evolving scholastic discourse on probability, particularly on the branch that dealt with the choice of opinions.

Fuelled by the Reformation, the sixteenth century was also a period of increasing systematization of theological argumentation. We will explore the great Salamancan theologian Melchor Cano's (1509–1560) *De locis theologicis* with an eye on the role of agreement between the Saints, the Fathers of the Church, scholastic theologians, and philosophers. Their agreements limited the space for reasonable dispute (and hence disagreement) among scholastics and Catholics in general. Insofar, Cano constrained the legitimate choice of opinions.

Finally, probabilism is introduced with a focus on its basic uses and justifications.

1. From the late fifteenth to the late sixteenth century

Medieval doctrines on the choice of opinions burgeoned between the thirteenth and the first half of the fifteenth century. The second half of the fifteenth century witnessed the first strides in a new era of scholasticism, often referred to as 'early modern' or 'second' scholasticism. Both labels have their drawbacks and it is disputable whether the late fifteenth or early sixteenth century marked the beginning of a new era of scholasticism at all. Historic periodization is notoriously controversial and subjective, and there was certainly no gap in scholastic activity between 'first' and 'second' scholasticism. The traditional view that scholasticism deteriorated after the Great Plague of 1348 (if not following Aquinas' death) and was revived by the Iberian scholastics of the School of Salamanca in the sixteenth century is of dubious value. Nevertheless, students of sixteenth-century scholasticism

often deem that a sea-change occurred at the time. Moreover, some new trends that are commonly associated with a new, early modern era of scholasticism are highly relevant in the present context. Aquinas' *Summa theologiae* increasingly developed into an influential textbook for teaching theology, replacing Lombard's *Sentences*. Not coincidentally, most innovative discussions on the use of opinions were found in commentaries on Aquinas' *Summa*. Confessors' handbooks were structured in new ways and became receptacles for the application of innovative approaches to the choice of opinions. Finally, for roughly a century, Iberian authors began dominating this field, with the exception of the still very 'international' initial decades of the sixteenth century.² The majority of Iberian authors in question were associated with the famous School of Salamanca or from the second half of the sixteenth century onward were representatives of a growing intellectual superpower, the Jesuit Order which emerged in the early modern era.³

For our purposes, reference to an era of early modern or 'second' scholasticism helps convey the fact that scholastic discourses on probability and choice of opinions entered a new stage of development. This is not to say that it would be wrong to emphasize continuity in other areas of scholastic thought.⁴ As regards periodization, it is not necessary to resort to a 'one size

²Scholasticism saw significant contributions from Scottish, French, Italian, Dutch and German authors around 1500. The authors in question include the Dutchman Adrian of Utrecht (1459–1523), who academically excelled in the Netherlands and Flanders, before becoming a tutor of the future Emperor Charles V and later Pope Hadrian VI; the Germans Gabriel Biel (~1415–1495) and Konrad Summenhart (~1450–1502) at the new university of Tübingen; the Scotsman John Major (1470–1550), luminary at the University of Paris in logic, metaphysics, and moral theology; the Italian Thomas de Vio (1469–1534), aka Cardinal Cajetan, great commentator on Aquinas and one of the Catholic interlocutors of Martin Luther. For additional background on the mentioned authors, see De Bom and Braun (forthcoming); Garcia-Villoslada (1938); Oberman (1981); Renaudet (1981); Schuessler (2000); Slotemaker and Witt (2015); Varkemaa (2012).

³On the School of Salamanca and Iberian scholasticism, see Belda Plans (2000); De Bom and Braun (forthcoming); Decock and Birr (2016); White (1997). On Jesuit scholasticism, see Jansen (1938); De Bom and Braun (forthcoming); Heider (2016). On early modern Jesuit thought, see further Giard (1995); Giard (1996); Grendler (2017); Hengst (1981); Höpfl (2004); Martin (1988); O'Malley (1999); O'Malley (2006); Scaglione (1986); Smith (1939).

⁴Periodizations of the scholastic tradition are highly controversial. Giacon (1944–50) is the locus classicus for the distinction between a first and second (and third) scholasticism (however, for Giacon's problematic justification of this distinction, see Forlivesi 2014). The term 'early modern scholasticism' is also common, see, e.g., Decock and Birr (2016); Quinto (2001); Schmutz (2012); Trentman (1984). Novotny (2009) discusses the pros and cons of these labels. Perler (2008) offers a good argument against distinguishing between medieval, Renaissance, and early modern Aristotelianism, particularly with respect to theories of the soul. In areas with smooth theoretical continuity or smooth change, such periodizations would, indeed, convey a wrong impression of distinctness. Yet for that same reason, periodization might actually be helpful in fields in which significant innovative steps were taken in different periods. One of the key claims of the present

fits all' approach. Accordingly, the relative (dis)advantages of the labels 'early modern' vs 'second' scholasticism need not preoccupy us, and preference for one or the other may be regarded as a matter of predilection for simplicity's sake. This is also true for more specific labels, such as 'seventeenth century' and 'Baroque' scholasticism. The scholastic debate on probable opinions reached its peak in the seventeenth century, which is why 'Baroque' scholasticism might aptly denote its intellectual background. In fact, the rise and subsequent debate on probabilism quite neatly coincides with common periodizations of the Baroque as a cultural epoch.⁵ However, 'Baroque scholasticism' is to some extent less familiar as a concept of intellectual history than 'early modern' or 'second' scholasticism, and I will therefore frequently resort to the latter concepts. Fortunately, these different labels for those periods do not entail different end dates. It is hardly contested that the contiguous tradition of scholastic thought, which began in the Middle Ages, ended in the second half of the eighteenth century. The prohibition of the Jesuit Order (1773) or the French Revolution (1789) are suitable end-dates. Whether Catholic neo-scholasticism of the nineteenth and early twentieth centuries should—as some scholars suggest—be considered a third scholasticism is presently of no relevance.

1.1 Trends on use of opinions in early modern scholastic thought

Let us now proceed to a condensed overview of the developments in nascent early modern scholasticism that may have paved the way for innovative trends in the choice of opinions.

The most important message is that no scholastic author dealing with the choice of opinions markedly deviated from the mainstream of medieval

inquiry is that the invention of probabilism was such a step. That is, in the present context, eschewing a distinction between periods of scholasticism would convey the impression of inertness, thus wrongly conceding a point to early modern and modern critics of scholastic authority-proneness. On the whole, the distinctions between first/second and medieval/early modern scholasticism make sense in specific contexts. If this is true for a sufficient number of contexts, they may even be helpful in general, notwithstanding the existence of contexts or areas of discourse in which they do mislead.

⁵For a defense of the label 'Baroque scholasticism', see Novotny (2009). Since I believe that the debate on probable opinions is a characteristic element of Baroque culture (on this concept, see Friedrich (1952); Hersche 2006), I will occasionally use 'Baroque scholasticism'. In contexts in which no such cultural connotation is intended, terms like '*x*-th-century scholasticism' will be used.

tutorism as outlined in Chapter 1 before 1577. What then were the new trends in the choice of opinions during the first half of the sixteenth century? More detailed and systematic consideration was given to this subject in comparison to the Middle Ages. Konrad Summenhart (~1450–1502) and John Major (1470–1550) formulated more elaborate sets of criteria for a legitimate and reasonable choice of opinions than those of Aquinas and Henry of Ghent previously. Summenhart was a professor at the new university of Tübingen in Southern Germany, and a major authority on law and economics. His *Sevenpart Work on Contracts* (*Septipertitum opus de contractibus*, 1500) influenced the trajectory of contract law for over a century and introduced the notion of property rights into the discourse of conscience. The Scotsman, John Major, was an outstanding luminary in logic, metaphysics, and moral theology at the University of Paris. He taught diverse students such as Francisco de Vitoria, Domingo de Soto, Erasmus of Rotterdam, and François Rabelais. Both Summenhart and Major became anchoring authorities in the early modern debate on the criteria for choice of opinions (see Chapter 5). The today almost completely forgotten Barnabas de Rosalibus was the first to author a book-length treatment on this subject.⁶ A *relectio* of his (i.e. lecture notes), published around 1540 in Valencia, covers the issue of choice at length from a variety of vantage points. Yet despite his extensive treatment of variety and choice of opinions, Barnabas' exposition hardly contains anything new. His influence appears minimal, it is only noticeable in Antonio de Cordoba's writings, whose treatment of the same issue was regularly quoted, but need not preoccupy us here.⁷ The most important new-style confessors' handbook with an influential and detailed treatment of the choice of opinions was Martín de Azpilcueta's *Manual de confesores y penitentes* (1549).⁸ Azpilcueta (1491–1586), aka Dr. Navarrus, was a canon lawyer and one of the early luminaries of the School of Salamanca, but his handbook also does not really stand out as breaking new ground with respect to the regulation of choice of opinions.

In a paper, I have drawn attention to the fact that ascriptions of equal probability (*aequi probabilitas*) were exceedingly rare in the Middle Ages but began to abound after 1500.⁹ This might be regarded as a second trend that

⁶Barnabas á Rosalibus (1543).

⁷Cordoba (1604).

⁸Early modern handbooks of confessors, such as, e.g., Baptista (1516); Cagnazzo (1520); Clavasio (1534); Mazzolini (1569), typically contained a summary of the rules for the choice of opinions in the entry 'opinio'. On these *summae confessorum*, see Boyle (1982); Goering (2008); Michaud-Quantin (1961); Tentler (1974).

⁹For the following claims and for more detail, see Schuessler (2016).

facilitated the rise of new conceptualizations of probability, including a mathematical calculus of probability in the middle of the seventeenth century. In order to formulate the calculus of probabilities that arose in the seventeenth century, the equality of probabilities must be conceivable. Equal probability or the relation ‘equally probable’ (*aeque probabilis*) denotes precisely what it says it does: that two propositions are equally probable. It is surprising that such judgments were exceedingly rare before 1500. With very few exceptions (I only know of three), literal ascriptions of equal probability, connecting the words *aequalis* and *probabilis*, are apparently not to be found in medieval texts. Of course, a medieval practice of considering two opposed propositions both as probable existed, but this practice did no more imply that the propositions in question were equally probable than the statement that Jim and Lucy are both tall implies that they are equally tall. Medieval scholastics also wrote about an equal balance of reasons for truth and associated this condition with the concept of doubt. This was the condition to which the ‘safety first’ rule had to be applied. Hence, equal probability was at least implicit in medieval approaches to doubt. Nevertheless, it makes a difference whether concepts are implicitly implied or rendered explicit. Only in the sixteenth century did probability explicitly become a concept for which three order relations, namely ‘greater than, smaller than, and equal’, were acknowledged as being adequate.

An electronic text search of the corpus of Aquinas’ writings I conducted did not unearth a single instance of ascription of equal probability. Passages in Aristotelian writings, which today are translated as ‘equally probable’, were translated differently in the Middle Ages. The relevant medieval translations usually asserted that two things were similarly probable.¹⁰ ‘Similar probability’ does not allow mathematization in the same way as ‘equal probability’. There is also no mention of equal probability in medieval discussions of choice of opinions. Opinions were usually considered to be more or less probable than others, but not as equally probable. The same result is obtained for judgments of probability in humanist writings before 1500, where an equal probability of propositions was also apparently not literally mentioned. In contrast, literal assertions that two propositions are equally probable spread in the first half of the sixteenth century and became common in the second half. The first scholastic author to unambiguously refer to equal probability of propositions was Silvester Mazzolini de Prierio. In the first

¹⁰See again Schuessler (2016).

decades of the sixteenth century, humanists also began to speak of equal probability, and finally, to use this term in translations of Aristotle. I was not able to ascertain whether the scholastic usage of the term inspired humanist usage or vice versa. Direct combinations of the words ‘equal’ and ‘probability’ seem to emerge in both traditions at roughly the same time in the early sixteenth century, but not before then.

As indicated, in my view, the possibility to consider two propositions or events as equally probable is a conceptual prerequisite of the mathematical calculus of probability. Without such judgements, it makes no sense to form equations for probabilities or to numerically quantify probability, because a numerical representation of probability as a fraction (or real number, like today) in the zero-to-one interval implies that the probabilities of different propositions or events can, in principle, be exactly the same. It was, of course, logically possible for medieval authors to consider probabilities as equal, but the lack of an established and widespread practice to do so might have impeded the rise of quantitative representations of probability. The fact that judgments of equal probability spread in the sixteenth century may conversely have facilitated the rise of a calculus of probability in the seventeenth century. Hence, the history of the concept of equal probability answers one aspect of Ian Hacking’s question why a calculus of probability arose in the seventeenth century and not before that time.¹¹ We will discuss the interplay between the scholastic discourse on probability and the rise of modern numerical probability in Chapter 12 and will therefore not deepen the issue here.

The third trend worth noting is the increasingly legalistic spirit of early modern Catholic moral theology (even more legalistic than it already had been in the Middle Ages), integrating important rules and concepts from the domain of property law. These developments had a significant preparative and shaping influence on probabilism (see below), which was *the* most important development in the scholastic discourse of probability in the sixteenth century. Moreover, these developments also had an impact on the formation of moral theology as a theological subdiscipline. A branch of theology that was explicitly addressed as moral theology emerged for the first time in the course of the sixteenth century.¹² The concerns of moral theology had, of course, already pervaded medieval theology, and for simplicity’s sake,

¹¹See Hacking (1975); Hacking (2006).

¹²For the rise of moral theology as a discipline, see Mahoney (1987); Quantin (2016); Tentler (1977); Theiner (1970).

we have addressed them as such, but they had not been bundled under a subdiscipline with a distinct outlook. When moral theology evolved into its own discipline in the late sixteenth century (after the Council of Trent), it adopted many of the instruments of jurisprudence, including a legalistic spirit for the management of conscience in the confessional.

1.2 Other trends with a possible impact on probability and the use of opinions

So far, we have discussed trends in early modern scholasticism, however, the fifteenth and sixteenth centuries also witnessed developments in other intellectual currents that might be of interest here. Particularly conspicuous in this respect is the Renaissance of ancient skepticism. At first glance, it is plausible to assume that a renewed burgeoning of skepticism might have influenced the scholastic discourse on choosing opinions in doubt or under conditions of probability. A veritable academic industry has investigated the unfolding of skepticism in the early modern era, following Charles Schmitt's investigations into Ciceronian skepticism and Richard Popkin's claim that the recovery of ancient skepticism was a key factor in the rise of modern thought.¹³ Popkin detected a renaissance of ancient, and above, all Pyrrhonian skepticism in the sixteenth century. Subsequent research unveiled much more about these developments. The onset of a renaissance of skepticism has been backdated to a period and place emblematic for the Renaissance in general: fifteenth-century Florence. In earlier work, I have argued that the recovery of Pyrrhonian skepticism in Florence and the beginning of the benevolent approach in scholastic moral theology were, indeed, both influenced by the same event, the Great Western Schism that sent a shock wave of moral and spiritual uncertainty across Europe.¹⁴ Moreover, early modern life offered a sufficient amount of uncertainty for continued interest in both skepticism and scholastic probable reasoning. Beyond this, it is not apparent that the rise of

¹³See Popkin (1979, 2003); Schmitt (1972).

¹⁴See Schuessler (2009b). On the Renaissance of skepticism, see Cao (2002); Floridi (2002); Popkin (2003). There is a rich body of further literature on the history of early modern skepticism, see, e.g., Maia Neto, Paganini and Laursen (2009); Paganini (2003); Paganini and Maia Neto (2009). Popkin's thesis has by now also encountered opposition, see, e.g. Perler (2004). Perler (2006) documents that skepticism was in no way unimportant for medieval thought.

skeptical thought in the early modern era had any specific influence on the development of scholastic doctrines on the use of opinions. On the contrary, in the second half of the seventeenth century, moral theologians took pains to distinguish their brand of probability from that of the ancient Academic skeptics. Pyrrhonism is also mentioned, but more rarely as opposed to the scholastic style of probable reasoning (see Chapter 9). As tempting as the narrative of the influence of a skeptical Renaissance on scholastic thought might be, it should not be adopted, unless clear relations between both can be established. Presently, the picture is rather one of a simultaneous unfolding, possibly fostered by the same historical events.

The sixteenth century also witnessed advances in dealings with chance events that later came to be associated with the modern concept of probability. The mathematical calculation of chances, in particular, made a great leap forward with Girolamo Cardano's treatise on gambling (*Liber de ludo aleae*, 1564).¹⁵ Cardano was apparently the first to use the forward-looking calculation of chances for the solution of a gambling problem that had already intrigued others. This 'problem of points' addressed the distribution of gains when a gamble was disrupted while the players had won a few rounds but none of them had won the whole game. In a card game, for instance, the winner may be he or she who wins the first six rounds. Player A has already won five rounds, whereas player B has won two. Some authors applied legal rules for the division of gains in joint business ventures to this problem. These rules focused primarily on the number of rounds already won at the time of disruption. Cardano instead determined the chance of winning six rounds first—given the rounds a player has already won—as a criterion for the distribution of gains. Aside from Cardano's errors of calculation, this result was confirmed by modern probability theory. Yet the beginnings of a calculus of chances in Cardano's work did not have a recognizable impact on the scholastic discourse of probability, or for that matter, on the discovery of the probability calculus, because his analysis apparently was not widely circulated before 1663, the year it was printed.

This leaves the treatment of probability in Renaissance humanism as the most promising external influence on the development of scholastic probability.¹⁶ However, the assumption that such an influence might have

¹⁵Cardano (1961) and Hald (2003), Chap. 4; Godfroy-Genin (2004: pp. 37) on the problem of points.

¹⁶The cultural concept of the Renaissance does not comfortably fit into the present periodization which does not leave a 'gap' between the scholastic Middle Ages (1140–1500) and the early

existed runs counter to the image of scholastic probability discourse as inert and unchanging. Ian Hacking cemented this image by depicting Renaissance humanism in his influential *The Emergence of Probability* (1975) as a harbinger of modern probability, while scholastic approaches to probability in his view continued in their medieval mold, which placed them at maximal distance to the modern understanding of probability. Hacking's claims, in particular those on the Renaissance concept of sign, have encountered strong criticism (see Chapter 12), which opens the door for appreciating a different view on scholasticism and its relation to humanism.¹⁷ Let us first, however, ascertain which facets were really innovative in the probability discourse of Renaissance humanists.

Ian Maclean, who investigated the uses of probability in Renaissance law and medicine in depth, found a great variety of uses of probability-related terms, but none of his findings document a usage that essentially differed from earlier medieval uses.¹⁸ The variety of the humanists' probability-related terminology largely resulted from precedent in ancient authors, such as Cicero and Quintilian, or Aristotle's Greek commentators. Humanists, of course, used the word *probabilis*, but many preferred to speak of 'truthlikeness' (*verisimilitudo*) or 'credibility' (*credibilitas*) when referring to the assent-creating power of a text or speech. In rhetoric, the aim of persuasion is often characterized as conviction (*fides*) rather than opinion.¹⁹ Nevertheless, all these variations of terminology can also be found in scholastic writings. The difference is that such variations were rare in scholastic texts that deal with the analysis and regulation of the choice opinions. Maclean also offered insightful discussions on the renaissance use of the concept of sign. One example is the interplay between legal and medical sign-based probability in Baldus de Ubaldis (1327–1400), an eminent medieval scholastic jurist. "You should know", Baldus writes, "that a judge is like a medical practitioner

modern era (1500–1773/1789) for an epoch called 'the Renaissance'. For the present purposes, the Renaissance may be considered a distinct cultural movement, which roughly occurred between 1350 and 1600, first in Italy and later in Spain and north of the Alps (see, e.g., Copenhagen and Schmitt 1992; Krayer 1996).

¹⁷For an incisive critique of Hacking's theses, see, e.g., Brown (1987); Garber and Zabell (1978).

¹⁸See Maclean (1992); Maclean (2001); Maclean (2006).

¹⁹Following, e.g., Cicero (1948), *De partitione oratoria*, 5: "Quid est argumentum? Probabile inventum ad faciendam fidem". See also Valla (2012:), II. 23; Agricola (1992), II. 17 and for the scholastics Buridan (2001), 6.2.2 and 8.4.1. For references to the scholastic use of other probability-related predicates than *probabilis*, see Deman (1933); Franklin (2001); Green-Pedersen (1984); Schuessler (2014b).

(*medicus*)”.²⁰ A medical practitioner has three ways of recognizing a disease. He either perceives the disease like a man who sees something in a mirror through a shadow (the case of urine diagnostics). This also applies to a judge who seeks truth on the basis of likeness to truth through inference from closely related factors (*proxima*). The second approach to determining a disease is overt testimony, like the tact of pulse. The third possibility is prognostics from remotely related factors, and a judge therefore makes conjectures from more distantly related factors (*annexa*). These considerations reveal that inference from signs played an important role in medieval medicine and jurisprudence, and many concomitant discussions on the concept of sign existed in medieval scholasticism. In seventeenth-century scholasticism, this subject was finally treated in voluminous treatises on signs and their use.²¹ It is also clear that sign-based probability differed markedly from endoxical probability, but as the example of Baldus demonstrates, such differences already existed within medieval scholasticism. Any attempt to explain new beginnings in the discourse of probability in the early modern era with sign-based probability needs to explain why it did not exert the respective influence prior to then, and new uses of sign-based probability need to be identified.

Another approach to understanding the demise of endoxical probability in the early modern era directly resorts to humanist critiques of endoxical probability. It would be wrong, of course, to regard humanism as generally hostile to Aristotelianism or, specifically, to endoxical probability. Many humanists were good Aristotelians. Nevertheless, some humanists attacked the scholastic usage of ‘probable opinions’ (*opinionones probabiles*), whereas—to the best of my knowledge—no such attacks can be found among scholastic authors before the seventeenth century. The most conspicuous in this respect were the fifteenth-century humanists Lorenzo Valla and Rudolph Agricola, who propagated a critical stance towards scholastic dialectic.²² The rise of Protestant humanism in the sixteenth century seems to have increased Agricola’s importance, but did not produce any additional new attitudes

²⁰Baldus (1539: 33), *De probationibus*, n. 4: “Scias quod iudex est sicut medicus: medicus enim cognoscit egritudinem tripliciter. Uno modo singulariter et improprie per urinam ... videt enim infirmitatem, sicut homo videt in speculo per quandam umbram, sic se habet iudex quando videt speculando et intra se conferendo per verisimilia et proxima ad veritatem cognoscendam. Secundo modo videt medicus per tactum pulsus, sic iudex se habet quando ut ita dixerim tanget veritatem per aperta testimonia. Tertio modo videt medicus a remotis prognosticando, ita iudex per annexa suspicatur quod non pertinet ad condemnationem in genere”. Maclean (2001: 313) refers to this passage in a footnote.

²¹See, e.g., Deely (2008); Meier-Oeser (1997).

²²Mack (1993: 31, 146); Nauta (2009: 233); Spranzi-Zuber (2011: 65).

towards probability. Philipp Melanchton's (1497–1560) on and off relationship with Aristotelianism is well-known. His various writings on rhetoric and dialectic contain nothing of particular interest for the present study.²³ The same seems to be true for the avowed French anti-Aristotelian Pierre de la Ramée (Latinized Petrus Ramus, 1515–1572) and his school.²⁴ It therefore seems sufficient to look at Valla and Agricola as representatives of criticism of the scholastic concept of probable opinion in Renaissance humanism.

Lorenzo Valla (~1405–1457) was a Renaissance philologist, teacher of rhetoric, and papal secretary.²⁵ Today, Valla is probably best known for his debunking of the Constantine donation as a forgery, but he was also renowned as a stickler for classical Latin, a critic of scholasticism, and herald of innovation in theology. Valla's *Repastinatio dialecticae* sought to reform dialectic under the guidance of rhetoric. The anti-Aristotelian and anti-scholastic impetus of his work is brought to light in the prologue, in which Valla requested the former liberty of philosophers to propagate their doctrines, a liberty the sect of Aristotelians had denied, to be reinstated.²⁶ Valla followed Cicero in claiming that dialectic entailed careful discursive reasoning (*diligens ratio disserendi*). The tools of dialectic are reasoning and disputation (*ratiocinari et disputari*), and the aim of such argumentation is conviction (*fides*). Valla also preferred to refer to credibility and credible propositions (*credibilia*) rather than to probability and *probabilia*. Following Quintilian, he distinguished three degrees of belief-worthiness (*credibilitas*) or foundations thereof: a very firm basis for beliefs (*firmissimum*), a strong basis (*propensius*), and a basis that allows for belief (*non repugnans*).²⁷ For Valla, these categories corresponded to a threefold gradation of the necessity of conclusions from a given evidential basis. These were necessary and contingent conclusions, as in Aristotle's modal logic, but Valla also introduced the un-Aristotelian modal category of semi-necessity. Semi-necessary conclusions are produced by arguments with truth-like (*verisimilis*) or credible (*credibilis*) premises. Valla did not use the word *probabilis* in this context, but semi-necessary conclusions are apparently his surrogate for probable conclusions. All this may be interpreted as a critique

²³Agricola's influence on Melanchton is apparent in Melanchton (1564), lib. 4, p. 227 and confirmed by Mack (1993: 261, 362).

²⁴See Mack (1993: pp. 334).

²⁵On Valla, see Mack (1993); Nauta (2009); Regoliosi (2010); Spranzi-Zuber (2011).

²⁶Valla (1982: 359): "Quare libertas semper philosophis fuit fortiter dicendi quae sentirent".

²⁷See the manuscript entitled *Retractatio totius dialectice* in Zippel's edition of the *Repastinatio* (Valla 1982). This early stage of the text is not included in other editions of the treatise.

of endoxical probability and medieval Aristotelianism, because Valla never alludes to the *endoxon* in his analysis of credibility. However, Valla's approach seems to have found few followers at the time.²⁸

The Dutchman Rudolph Agricola (1444–1485), a key figure of northern humanism, had a more recognizable impact on the humanist discourse of probability than Valla. After scholastic studies at the universities of Erfurt and Cologne, Agricola travelled to Italy where he was steeped in the culture of the Italian Renaissance.²⁹ He argued for a new kind of dialectic, but defended the primacy of dialectic over rhetoric, thus blending scholastic and humanist concerns. His *De inventione dialectica* (1515), written around 1479 but not published in his lifetime, exerted a great influence on Erasmus of Rotterdam (1466–1536), Philipp Melanchton, and subsequent generations of northern humanists, who followed Agricola in his attempts to spread classical learning north of the Alps.³⁰ Agricola was much less of an iconoclast than Valla. With him, the term *probabilis* retained its key position in dialectic, which is characterized as the art of probable reasoning on any given issue. However, Agricola also wanted to dispose of probable opinions in the sense of *endoxa* as building blocks of dialectical reasoning. Probable argumentation is characterized by process features in Agricola rather than a mere replacement of certain with probable premises in Aristotelian syllogisms. What renders arguments probable is their argumentative (*argumentosus*) style, their aptness (*aptus*), and the fittingness (*consentaneus*) of reasoning.³¹ It is up to interpretation what Agricola meant with these properties, but they appear to highlight the coherence of a reasoning process or narrative. For Agricola, subsequent instances of probable reasoning mutually reinforce each other, rendering the entire sequence plausible and credible. Not only independently probable propositions are probable in this process, but propositions become probable if they are sufficiently similar to true propositions (*veris similia*).³² This brings dialectic close to rhetorical persuasion, and reveals Ciceronian influences.

Valla's and Agricola's open break with endoxical probability in rhetoric and dialectic are of interest to us, mainly because the scholastic discourse on probability did not remain inert in the sixteenth century. It also departed from

²⁸See Mack (1993: 114).

²⁹On Agricola, see Mack (1993); Spranzi-Zuber (2011).

³⁰See Mack (1993: pp. 56); Spranzi-Zuber (2011), Chap. 4.

³¹Agricola (1992: 210, 306); Mack (1993: 170); Spranzi-Zuber (2011: 89).

³²Agricola (1992: 311).

the *endoxon* as a basis for the choice of opinions, quietly, but not less momentously. This occurred in the last quarter of the sixteenth century and may therefore have been influenced by the earlier humanist critique of endoxical probability. We will discuss such a possible influence in Chapter 4, together with Robert Maryks' claim of a specific influence vector, the humanist leanings of the Jesuits.

1.3 Melchor Cano (1509–1560)

In the sixteenth century, considerable efforts were made to systematize the epistemological underpinnings of theological reasoning. The main activator of these developments was the Reformation with its all-out challenge for Catholicism. More than a few of the disputed issues between Protestants and Catholics related to epistemology. Was faith a prerogative of the individual and his relation to God? Or did it require embedment in traditions, the opinions of authorities, papal and conciliar decisions, and a framework of scholastic theology, supported by philosophy and logic? These questions became battlefields in the sixteenth century, and the defenders of a scholastic approach to them (initially mainly Catholics) wrote voluminous treatises on the art of theological argumentation. There is, however, not much discussion on choice from a variety of opinions in this context, not least because variety implies debate, and the treatises in question strove to establish an epistemology of undisputable truth. They are nevertheless of interest to us because they offer a systematic account of the grounds on which scholastic pluralism of opinions was delimited.

The most important Catholic treatise on the foundations of theological reasoning, unprecedented in its systematicity and with a long-lasting impact, was Melchor Cano's *De locis theologicis*. The Dominican Cano was a professor of theology at Salamanca, and together with Francisco de Vitoria and Domingo de Soto, one of the three founding fathers of the early School of Salamanca. His posthumously published (1562) systematic analysis of the foundations of theological argumentation summarized the Catholic position and structured the whole field. The title *De locis theologicis* refers to the concept of a *locus* (or Greek: *topos*), that is, a place from which an argument can be developed. The term has a long history in rhetoric and dialectic, reaching back

to Plato, Aristotle, and Cicero, among others. In rhetoric and the mnemonic arts, *loci* help find or remember good arguments. Philipp Melanchton, Luther's most important collaborator in Germany, used the term in his *Loci communes* to denote the central issues of theology, such as God, the sacraments, etc. Cano was not willing to cede the field to Protestants, although he used the term *locus* differently from Melanchton to classify reasons or fields of reasons that had authority (i.e., weight) in theological argumentation. Cano thus contributed to the art of reasoning or argumentation (*ars disserendi*) by applying it to theology. In total, Cano distinguished ten fields or foundations from which authority in theological argumentation arose: holy writ, the tradition of Christ and his apostles, the decisions and institutions of the Catholic Church, the councils of the church, the pope and the curia (*ecclesia Romana*), ancient saints, scholastic theologians, natural reason, arguments of philosophers, and historical facts and testimony. This list of *loci* indicates that Cano did not deal with theological reasoning in a narrow sense, but with philosophy and history as auxiliary disciplines as well. Theology needs their support, above all when conceived as scholastic theology. Cano's work is of interest here, not least for this broad perspective.

Reference to ten fields of authority should not be mistaken as evidence for an exclusively authority-prone approach. Reason has its own authority in Cano's framework. Prior to discussing theological *loci*, he addressed two ways of generating reasonable assent to a proposition: one is argument from reason, the other argument from authority.³³ The latter resembles the famous locus from authority (*ab auctoritate*) in ancient rhetoric, but reason is not less important in general. Cano emphasized that authority takes precedence in theology, but conceded that in other disciplines, reason ought to prevail over authority. Moreover, the locus from authority is not in conflict with reason, but relies on it indirectly. Faith may depend on authority, and one can be a believer without reason. But nobody can be a scholar of faith (that is, a theologian) without giving reason its due. Cano was, of course, aware that the scholastic mode of theology places a premium on analytical clarity and rational argumentation, and one of the aims of his presentation was to defend scholastic theology against the attacks of Protestant reformers. Last but not least, scholastic rationality was necessary to fight superstition, an important task of theology.³⁴

³³Cano (1574), lib. 1, cap. 2.

³⁴Cano (1574), lib. 1, cap. 3; lib. 8, cap. 2; Cameron (2010).

Cano's work was written some decades before the views of Copernicus and Galilei began to clash with conservative interpretations of the Bible. It is interesting to see how openly this reputedly conservative theologian still advocated adjusting theology to scientific knowledge. He warned his colleagues to not close their ears to rational argument. This would lead to grave errors.³⁵ Cano also argued that some passages of the Holy Scripture need to be understood in the light of science. Although it was a mistake for a theologian to over-indulge in philosophical quibbles (as some scholastics had undoubtedly done according to Cano), theologians ought to also avoid the opposite mistake of basing a decision predominantly on account of authority. Theologians sinned much in assuming certainty in uncertain matters.³⁶

Reason and authority can indeed proceed with more or less certainty or firmness. Cano, like his scholastic precursors, was aware that absolutely certain or firm knowledge was not attainable in all areas of discourse. He therefore distinguished between firm and less firm *loci* (*locus firmus/infirmus*). It was clear that the Holy Scripture, the tradition of Christ, or the decisions of the Church, to name just the major ones, constituted in principle firm *loci* for Cano. Even within such firm *loci*, however, reasoning was not always equally and maximally firm. Some interpretations of the Holy Scripture remained contentious, legitimately so, even within the Catholic Church. Firm reasoning was associated with demonstration, while less firm reasoning relied on probability and opinion.³⁷ Hence, none of the major fields of theological reasoning could dispense with probability and opinion. This was, of course, not a novel insight but a mainstream view in medieval scholasticism. Under these premises, less firm *loci* were those in which certainty and firmness were so rare as not to be expected. Arguments of scholastic theologians were, for instance, less firm, if not directly backed by the testimony of Scripture or the Church.³⁸ The main reason Cano adduced for this was disagreement among scholastic theologians, as agreement on the interpretation of dogmas could hardly be found, and disputes between schools of thought (*factiones*) abounded.³⁹ Cano thus joined the chorus of those who regarded scholasticism as brimming over with never-ending disputes and disparate opinions.

³⁵Cano (1574: 259), lib. 9, cap. 4: "id nos in errore maximo ducimus".

³⁶Cano (1574: 263), lib. 9, cap. 7.

³⁷Cano (1574: 264), lib. 9, cap. 8.

³⁸Cano (1574: 238), lib. 8, cap. 3.

³⁹Cano (1574: 238), lib. 8, cap. 3: "Nullum est in schola certum dogma, sed partium factionibus plena sunt omnia ... In nulla igitur re alia scholae testimonium certum erit".

Although he found some consensus among scholastics, he nevertheless regarded many scholastic claims and doctrines as being contestable. This was as much true in philosophy as in scholastic theology.

The authority of (ancient) philosophers was generally not firmer than that of scholastic doctors.⁴⁰ To begin with, propagators of utterly false doctrines possessed no authority (Cano mentioned Democritus and Epicurus, for instance). For the rest, many disagreements of doctrine existed between philosophers, but we should follow the opinions of the great philosophers where they agree. However, schools of philosophy (such as the Platonists or Peripatetics) possessed no authoritative claim to be believed just because they were schools of philosophy, and no school ought to be believed without reasons. Cano reminded his readers that some of Aristotle's teachings were repugnant to Christianity.

Following a short interplay involving the authority of civil law, book eleven of *De locis theologicis* deals with the authority of (worldly) history (*humana historia*). This is an early instance of a systematic epistemological discussion of history, appearing even before Bodin's *Methodus ad facilem historiarum cognitionem* (1566), which is often considered the starting point of a systematic reflection on the methods of historic research. History, wrote Cano, was an indispensable source for theologians. It was inappropriate to generally deny the reliability of historical reports. Some reports were even certain (morally certain, that is, in scholastic terminology), while others were probable. Cano suggested a distinction between trustworthy historians (*probatae fidei*) and others. He thus took initial steps to a critical historical method. In general, of course, history was not a firm locus, since most historical information was probable at best.

Cano's assertions created a framework for the use of a plurality of opinions, with a number of general implications beyond theology. Yet these did not include a systematic discussion of rules and regulations for the choice of opinions, something Cano came closest to in book twelve, in which he discussed the use of *loci* in scholastic disputation. Rules or precepts were necessary for an effective use of loci, and in Chapter five, Cano offered eight precepts for questions pertaining to faith. I offer three of them as examples for the regulations he assumes:⁴¹

⁴⁰See Cano (1574: 275), lib. 10, cap. 2.

⁴¹See Cano (1574: 369), lib. 12, cap. 6: "Tertia praeceptio: Si Sedes Apostolica aliquem scripturae sensum praeferierit, ille idem catholica veritas censenda est ... Quarta praeceptio: Consentiens eadem Sanctorum omnium conspiransque Scripturarum intelligentia ipsissima est fidei catholicae

Third rule: If the Holy See has already determined some meaning of Holy Scripture, it is to be considered as Catholic truth.

Fourth rule: The consensual and unanimous understanding of Holy Scripture by all saints is a truth of Catholic faith.

Eighth rule: If the scholastic theologians congruently establish some firm and stable conclusion with one voice and constantly and enduringly teach that it should be embraced by the faithful as a certain decree of theology, the faithful may safely adopted it as Catholic truth.

Cano's rules specify conditions under which a theological claim becomes binding for all (Catholic) Christians, and it is important that apart from the special position of the Holy See, he focusses on the consensus of authorities as limiting condition for the choice of opinions.

He does not, however, explain, as Henry of Ghent had done, how opinions should be chosen within the boundaries of legitimacy. Cano could not, of course, fix these boundaries authoritatively. His views on the determination of undisputable truths of faith could be disputed, although they were widely shared among Catholic theologians. The Pope had the last word in this respect, whose teaching authority was confirmed by Cano, but no Pope formally ratified Cano's criteria. It was therefore possible to disagree on the exact boundaries of the theologically disputable, and this possibility added to the scholastic pluralism of opinions. In practice, however, Cano's limitations circumscribed the binding core of Catholic theology fairly well.

Within these limitations, considerable room for the legitimately opinable existed, subject to rules and entitlements of the choice of probable opinions. As already indicated, Cano did not say much about these rules and entitlements. An electronic search of *De locis theologicis* shows that Cano often used the predicate *probabilis*, but never in a definitional or regulatory context related to the choice of probable opinions. It is also revealing that Cano was scarcely quoted in the literature on probable reasoning, that is, in texts on the doubting or probable conscience. This is, of course, understandable because

veritas ... Octava praeceptio: Si Scholastici Theologi aliquam itidem conclusionem firmam et stabilem uno ore omnes statuerint atque ut certum Theologiae decretum fidelibus amplectendum constanter et perpetuo docuerint, illam ut catholicam veritatem fideles sane amplectemur". [My translation]

the doubting and the probable conscience were concerned with alternative opinions or courses of action, whereas Cano emphasized consensus as an indicator of undisputable truth. Hence, Christians were bound by the consensus of the Saints, the Fathers of the Church, scholastic theologians, and philosophers, and where such consensus existed, neither doubt nor alternative probable opinions could legitimately arise. However, a consensus requirement also helped protect the scholastic pluralism of opinions, because it implied that neither majorities nor the views of a weighted majority, that is, a 'larger and sounder' fraction (*major et sanior pars*) of competent reasoners, sufficed as such to legitimately preclude a diversity of opinion. In fact, an overarching consensus between the different groups whose assertions mattered was necessary to compel universal assent, because it could otherwise be legitimately disputed whether the group consensuses of the Fathers or of the scholastic theologians were more binding. In principle, Cano's approach did not exclude such problems, since he dealt with the consensus of each group separately. Moreover, Cano did not explicitly rank any of the mentioned groups above the others with respect to authority, although he apparently appreciated ancient authorities more than contemporary ones. This was probably not mere oversight. Clashes of the united ancients against the united scholastics were, to the best of my knowledge, never recorded in Catholic theology, not least because they would have revealed a flaw in the providential order, which was upheld as being coherent.

On the whole, a focus on consensus as an indicator of binding truth, even if individuals such as the Pope were additionally considered as its arbiter, strengthened the case of pluralism, because it was possible for observable disagreement to thus attain normative force. That is, the very fact that the Fathers of the Church, the Saints, scholastic theologians, or philosophers disagreed on an issue indicated that reasonable persons could legitimately disagree on this particular issue. Today, disagreements in applied ethics, but also in many other areas of philosophy, are often optimistically belittled on grounds of assumption that they derive from reasoning errors or insufficient information. Such a strategy of evasion is more difficult to sustain in a tradition that relies on intellectual authorities. An authority by definition is not a person wont to commit errors or to judge prematurely. Disagreement between authorities must therefore be taken seriously and possesses epistemic relevance. That is, the widespread reliance of scholastic thought on authorities and experts already helps explain why it was so attentive to the choice of

opinions under conditions of disagreement, given that disagreement among authorities was an unmissable fact.

2. Probabilism

Cano's treatise has led us into the second half of the sixteenth century and has thus brought us close to the major shift in the guidance of conscience and the regulation of the use of opinions that will preoccupy us throughout much of the remainder of this book. In 1577, Bartolomé de Medina (1527–1581), a Dominican professor at the University of Salamanca, published a commentary on Aquinas *Summa* (Part I-II), in which he formulated a new doctrine of the legitimate choice of opinions. He claimed:⁴²

“If an opinion is probable, it may be followed, even if the opposite opinion is more probable.”

Medina's new approach was an almost instant success. Within a few decades, a large number of Catholic moral theologians endorsed it under the name of *doctrina probabilistis*. In the late seventeenth century, the doctrine came to be called probabilism.⁴³ It always remained a disputed issue whether Medina really was the first to formulate the basic claim of probabilism in 1577. Many seventeenth-century scholastics and some modern scholars postulate earlier dates (and other inventors). Such backdatings owe a lot to scholastic attempts to equip a doctrine with an impressive pedigree, ideally tracing it back to, say, Aquinas or even Augustine. Juan Caramuel y Lobkowitz (1606–1682), an extravagant Baroque probabilist and polymath, located the beginnings of probabilism in disputes between Adam and Eve – and the angels, of course,

⁴²Medina (1580: 464), q. 19, a. 6: “Si est opinio probabilis, licitum est eam sequi, licet opposita probabilior sit”. (my translation).

⁴³Today, any form of reasoning compliant with the axioms of the modern calculus of probability is referred to as probabilism (see Huber 2016). In the present book, probabilism refers to a scholastic doctrine of using probable opinions. Deman (1936: 417) states without reference that the word came into use in the second half of the seventeenth century. In fact, Gonzalez (1691), praefatio, n.1 stated: “probabilismus seu sententia benigna de usu licito opinionis minus probabilis”. It seems interesting that Gonzalez (1691) was suppressed (see Gay 2012) and in the approbated Gonzalez (1694), the word *probabilismus* is apparently not used. The word ‘probabilist’ (*probabilista*) was used before the word probabilism. The earliest use of *probabilista* I know of occurs in Nicole (1658), ep. 5, sec. 2.

were probabilists for Caramuel as well.⁴⁴ Some claims of encountering probabilism before Bartolomé de Medina need to surely be taken seriously, but none of those I examined amount to unambiguous anticipation. Therefore, I agree with Thomas Deman, the most notable modern scholar on probabilism, that Medina invented it. Medina's doctrine and what became of it may have catered to a long-standing need to justify and conceptually ground already established practice, but with respect to an explicit statement, there seems to be no precedent. In the early modern era, scholastic critics of probabilism correctly pointed out that Medina did not refer to precursors and that contemporaries treated his claim as a novelty.⁴⁵

The apparent novelty of probabilism consists in a break with medieval regulations ('medieval tutorism') that had been in force until then. Since at least the late Middle Ages, it had been common to *prima facie* allow deciders to choose any opinion they considered most probable from a set of probable opinions. The deciders needed defensible reasons for their ranking of probability, but were entitled to deviate from the majority view (even a weighted view shared by a 'larger and better part', *major et sanior pars*). Medina went beyond this entitlement by licensing the choice of opinions an agent acknowledged as being less probable, unless particular contextual moral requirements barred such a permission.⁴⁶ Otherwise, the traditional context of choosing from a variety of opinions remained in place. Above all, both more probable and less probable opinions were considered probable. This assumption of both-sided probability guaranteed that choice occurred with respect to a set of reputable or plausible opinions, and never irrespective of the quality of an opinion.

In medieval scholasticism, probable opinions were usually conceived as Aristotelian *endoxa*, as opinions held by all, by an overwhelming majority ('the many') or knowledgeable persons ('the wise', experts). Medina used a different characterization of probable opinions.⁴⁷

⁴⁴Caramuel (1663), ep. 4, n. 255.

⁴⁵See Gonzalez (1691), diss. 1, §1; Concina (1751), lib. 3, diss. 1, cap. 1, n. 6.

⁴⁶One such exceptional context concerned the uses of medicine or medical treatment and has been investigated by Schwartz (2014). Norms of harm avoidance limited the application of probabilism in medical contexts, but even in this respect diversity of opinion existed among moral theologians.

⁴⁷Medina (1580: 178), q. 19, a. 6: "Secundo sciendum est, quod opiniones sunt in duplici differentia, quaedam sunt probabiles, quae confirmatur magnis argumentis, & sapientium autoritate ... aliae sunt improbables, quae nec firmantur argumentis, nec maiorum autoritate" (my translation).

“Secondly it should be known that there are two kinds of opinions: some are probable, which are confirmed by strong arguments and the authority of the wise ... others are improbable, which are not supported by arguments or established authority (*maiorum autoritate*).”

The understanding of probability as justification based on strong reasons and/or sound authority subsequently became the standard for defining ‘probable opinion’ in moral theology. Moreover, it paved the way for an explicit distinction between intrinsic probability, which relied on reasons known to an agent, and extrinsic probability, which resulted from the opinions of others. The significance of this change will be discussed in Chapter 4. Presently, the issue can be bypassed because most features of probabilism can be understood without altering the familiar rendering of probable opinion as a reputable or approved opinion. However, two sets of questions concerning probabilism should be answered before we spend a lot of effort discussing this doctrine. First (see Section 2.1): is it not obviously epistemically irrational or even psychologically impossible to assent to an opinion that is assumed to be less probable? Moreover, is probabilism therefore not doomed to be a fallacy? Second (see Section 2.2): why probabilism? What problems did it solve for its users? Both sets of questions need to be answered to grant probabilism a fair hearing.

2.1 Is probabilism irrational or inconsistent?

It would seem to be epistemologically irrational if a person assented to an opinion (i.e. hold it to be true), which she considers to be less probably true than a counter-opinion. This verdict is also valid if scholastic notions of probability are presupposed. Moreover, detailed epistemological analyses of the foundations of probabilism in the seventeenth century document that scholastic authors were aware of the problem (see Chapter 8). It thus needs to be emphasized that Medina only approved of ‘following’ a less probable opinion (*opinionem sequi*), and we will see shortly that it is not per se irrational to follow opinions which are less likely true than their negation. ‘To follow’, ‘to choose’, ‘to adopt’ were traditional key terms associated with the choice of opinions long before Medina. The conditions under which these terms

implied a requirement of assent were usually not explicitly specified. In many cases, a mere choice of an opinion as a premise for action without holding it true appeared acceptable. Core propositions of faith had to, of course, be held true, but the problem of choosing from a variety of opinions was not restricted to this context. It pertained to all sorts of philosophical, moral, and legal debates, but even in theological matters, a demand to ‘follow’ an opinion remained conspicuously vague between a demand to act according to a proposition or, indeed, to consider it true. The vagueness involved hardly mattered under the auspices of medieval mainstream epistemology. In cases of equally balanced doubt, assent could not be given to either side, as most scholastics believed. The choice of the safer side in these cases was thus only action-guiding. In cases of probability-guided choice of the (at least subjectively) most probable opinion, greater probability guaranteed that assent to the chosen opinion was insofar (*pro tanto* is the philosophical term) epistemically rational.

The same assumptions implied that assent to a less probable opinion was considered epistemically irrational if not well-nigh impossible. Following a less probable opinion could therefore *prima facie* only imply accepting it as a premise of one’s actions, but to not hold it to be true (i.e. believe it). This interpretation can be corroborated with the words of Juan de Salas (1553–1612), an important early probabilist, who explicitly addressed the problems probabilism posed with respect to assent. ‘Following’ an opinion, he wrote, is possible in two ways: through assent or in practice (that is, through action). Some consider the first option impossible with respect to less probable opinions, because they think that nobody can assent to a proposition whose opposite is regarded as equally or more probable. Salas viewed things differently and believed assent to less probable propositions to be possible, similarly as the conscious choice of a lesser good was possible. Nevertheless, he added that his view did not matter for the controversy whether a less probable and less safe opinion may licitly be preferred to a more probable and safer one. This controversy was thus to be understood with respect to following an opinion in practice, that is, as a premise of action.⁴⁸

⁴⁸Salas (1607), tract. 8, disp. unica, sec. 6, n. 61: “Supponendum secundo est dupliciter aliquem posse sequi opinionem minus probabilem scilicet in assensu et in praxi. Primum modum aliqui censent impossibilem, quia putant neminem assentiri posse propositioni, cuius oppositum existimet esse aequae aut magis probabile, ego vero puto esse possibile, quia sicut possumus amare minus bonum cognitum ut tale, ita at assentiri propositioni minus probabili cognitae ut talis, sed hoc parum refert ad praesentem controversiam quae intelligitur de sequela in praxi”.

Salas' view on the possibility of assent to less probable propositions (recognized as such) was not without effect. In the second half of the seventeenth century, sophisticated attempts were made to justify assent to opinions that were less probable in the eyes of the assenting person. We will discuss these attempts in due course (Chapter 10). In any case, as Salas correctly remarked, no profound problem of rationality arose when a less probable opinion was deemed a mere premise of action. It is certainly not irrational to follow a less probable opinion if the expectable gains of this choice are high enough to make good for the higher probability of a less profitable course of action. Modern decision theory recommends following a less probable proposition as a premise of action if the product of its probability and the value of the action's consequences is larger than any alternative's.⁴⁹ That is, a deficit of probability can always be compensated by an excess of outcome value.⁵⁰ The drawback of this justification is that it was not available to early probabilists, because numerical probability and expected value as a guide of action were only invented in the 1650s.

It is not wayward, however, to regard acceptance of less probable premises of action as a significant step towards modern probabilistic decision making. Following the invention of probabilism, not only risk aversion, but also utility (*utilitas*) and the prospect of gain could legitimize the choice of a less probable premise of action. Juan de Salas regarded probabilism as a means to procure what legitimately 'was useful to oneself' (*quod sibi utile fuerit*).⁵¹ Francisco Suárez (1548–1617) also recognized *utilitas* as a reason to prefer the less probable over the more probable.⁵² Hence, to a certain extent, expected value might have become acceptable as a standard of fairness in games of chance in the middle of the seventeenth century because probabilism had already loosened the hold of greater probability on rational action. This assumption is supported by justifications of probabilism which, indeed, relied on explicit outcome-based considerations or directly on the example of games of luck. When I said that such justifications had not been available to early probabilists, emphasis was on 'early', because in the course of the seventeenth century, probabilism was sometimes justified with considerations of

⁴⁹Franklin (2001: 77) seems to disagree, claiming that Medina confused support by some notable evidence with support by total evidence, thus implying that probabilism is not tenable if all available evidence is taken into account. I disagree with Franklin's diagnosis as will become clear in this chapter

⁵⁰See, e.g., Luce and Raiffa (1957).

⁵¹Salas (1607), tract. 8, sec. 6, n. 66, prob. 3.

⁵²Suárez (1856), vol. 4, tract. 3, disp. 12, sec. 6, n. 11.

expectable gain and loss. Juan Caramuel, for instance, justified probabilism, among other reasons, with the argument that the greater hope of gain (*lucri maioris spes*) of a less probable proposition was acceptable to compensate for the risk involved in games and competitions.⁵³ This may not be surprising, given that Caramuel wrote the first scholastic treatise on the new calculus of probability invented by Pascal, Fermat and Huygens. However, Antonio Pérez (1599–1649), a Jesuit professor at the Collegio Romano and teacher of several great probabilists and anti-probabilists, had already justified the adequacy of a judge’s preference for a less probable sentence with an expectation-based argument. He asserted that the lower probability of a greater future evil (*malum*) could preponderate the greater probability of a smaller future evil.⁵⁴ Given that Pérez had died before the first steps towards the modern calculus of probability were taken by Pascal and Fermat in 1654, attempts to justify the choice of less probable opinions through outcome-based arguments may indeed have helped pave the way towards modern probability (for a more in-depth analysis, see Chapter 12).

2.2 Uses of probabilism

Immediate users of probabilism were typically theologians, casuists, and canon lawyers who dealt with the legitimization of some agent’s conduct.⁵⁵ This could happen in the roles of agent’s confessor, moral counselor of the agent, counselor of the Inquisition, academic teacher, clerical administrator, theorist or summist who wrote on matters of conscience, and others. In general, probabilism was primarily meant for those who were competent to handle it according to scholastic and ecclesiastical standards of competence.

⁵³Caramuel (1675), in indice: “In ludo & concertatione praemittit, ut minus probabilem amplectaris sententiam, si lucri maioris spes, periculi quantitatem compenset”. The index entry refers to prodromus, n. 30, where Caramuel discusses a bet in which the less probable proposition is 150,892,080 times less probable than the opposite proposition. Caramuel correctly claims that this disadvantage can be compensated by a sufficiently high premium. The number documents that Caramuel applied the modern calculus of probability.

⁵⁴Pérez (1668), tract. 1, disp. 4, cap. 2, n. 16: “probabilitas minor maioris mali futuri praeponderare potest probabilitati maiori minoris mali futuri ... Sicut etiam spes magni lucri potest saepe praeponderare parvo lucri evidenti”. And under n. 18: “Si autem pendet a solo iure naturali, inspiciendum est, utrum excessus mali minus probabiliter imminentis ad malum probabilius imminens sit titulus, ut iuxta rectam existimationem potius timendum sit malum minus probabiliter imminens, quam contrarium probabilius imminens”.

⁵⁵See also Schwartz (2014).

It should be noted, however, that even persons who lacked this competence (*illiterati* in the diction of scholastic moral theology, see Chapter 5) could indirectly use probabilism as a tool of justification by hiring or resorting to a suitable counselor or confessor. As we will see, probabilist confessors were even obligated to help a penitent defend his opinion, if they had to regard it as probable. A penitent could therefore appeal to a confessor to apply the for the penitent most benevolent interpretation of his conduct. Early modern elites will certainly have been informed about the justificatory options that probabilism offered them, and many streetwise ordinary people probably, too.

A more puzzling question concerning probabilism concerns its uses. At first glance, the practical options probabilism offered to guide consciences were not more bountiful than those of the older mainstream approach of medieval tutorism. In the late Middle Ages, well-informed agents were *prima facie* allowed to choose freely from a set of probable opinions, given due epistemic diligence and the assumption that the chosen opinion was most probable. This seems to render probabilism superfluous, because every agent would naturally consider his preferred opinion to be more probable than existing alternatives. Why then a permission to follow a less probable opinion? It is clear that probabilism must have satisfied an existing demand that had remained unmet by the established mainstream regulations, otherwise its sweeping acceptance in the last quarter of the sixteenth century would be inexplicable. Contemporary sources offer clues at best to what this demand might have been. Some modern scholars regard ‘extrinsecism’ as a reason for probabilism’s success. According to ‘extrinsecism’, a person follows the opinion of others at the expense of her own opinion.⁵⁶ Since agents usually consider their own opinion more probable than that of others, there was apparently a problem with motivating agents to comply with the opinions of relevant others (e.g., confessors or prelates), which they considered to be less probable than their own. The problem was not negligible because individuals were called upon to follow the judgments of their conscience and thus what their intellect presented them to be more probably morally right. The greater safety of less probable opinions had long been accepted as a reason to embrace them despite their smaller probability. Yet what if a confessor’s or superior’s view was clearly less safe? Probabilism solved this problem by explicitly

⁵⁶See Deman (1936: 549); Gay (2012: 139); Quantin (2002: 912); Turrini (1991: 147). Schwartz (2014: 374) is not using the term ‘extrinsecism’ but argues in a similar direction by highlighting probabilism as a doctrine that allowed agents to act against their own opinion, which they considered as better founded.

permitting the choice of opinions that were simultaneously less probable and less safe. This brings us to the question whether probabilism was a product of the Catholic response to the Reformation, the Counter-Reformation, which had begun to operate in full swing after the Council of Trent (1545–1563). The Counter-Reformation is usually portrayed as having been obsessed with fostering obedience to the Catholic Church. If probabilism was mainly a doctrine that facilitated obedience and accommodation to the demands of authorities, it appears to have been an instrument par excellence of the Counter-Reformation. We will deal with this claim in more detail in Section 3 below.

One reason to be reluctant of our assessment of the accommodative purpose of probabilism arises from problems in which the extrinsicist view gets embroiled. Some modern scholars, with whom I agree at least grossly, even consider probabilism a doctrine which somehow fostered agents' intellectual and moral autonomy.⁵⁷ This alternative perspective relies on documentable uses of probabilism that do not fit the mold of external guidance or accommodation. Take the case of a confessor who has to decide whether to absolve a penitent whose action-guiding opinion the confessor considers probable but less probable than his own (see Introduction). Probabilists assumed that the confessor, except in special cases, had a duty to tolerate the penitent's view and absolve him under this premise. It were the opponents of probabilism, not the probabilists, who insisted that the penitent comply with the confessor's opinion. This dispute about the regulation of confessional practice runs counter to the view that probabilism fostered accommodation to the opinions of confessors or prelates. We will come back to this issue later in the book in Chapter 11, hopefully with a much better understanding what probabilism was and how it was used. For the moment, it seems best to not prejudge the debate on accommodation vs liberalization (or protection of the individual) and to list several significant alternative uses of probabilism that could be made for the guidance and assessment of moral action.

⁵⁷See Delumeau (1990: 139); Maryks (2008: 117).

(1) Application A: Accommodation

Probabilism *was* used to accommodate agents to the opinions of others. Although agents might hold their own opinion to be better founded (that is, more probable) than the opinions of others, they were entitled to follow the probable opinions of others, for instance, of confessors or superiors. The eminent Jesuit theologian Gabriel Vazquez (1549–1604) offered the example of a soldier. A soldier had to follow a commander’s order if it was at least probable that the order was morally permissible, even if the soldier considered it more probable that the order was impermissible.⁵⁸ This application of probabilism shows how the traditional Christian view of the bindingness of an agent’s conscience (that is, his or her moral judgment) could be harmonized with norms of obedience and the needs of uniform collective action. In the Middle Ages, these aims were achieved with the possibility of ‘deposing one’s conscience’ (*conscientiam deponere*). ‘Deposing’ implied a change or at least suspension of opinion. That is, in cases of due obedience, a dissenting subordinate had to change his mind and believe that an order was most probably morally right or to suspend assent with respect to this question. By contrast, probabilism allowed the soldier to stand by his opinion that the commander’s order was more likely impermissible than permissible, yet to comply with it, because its permissibility could not be ruled out. Insofar, probabilism strengthened individuals’ intellectual self-reliance, even in cases in which they had to accept direction by others. Note also that the action-guiding opinion needs to at least be probable. This is an impediment to mindless obedience with respect to orders. Agents were thus not called upon by scholastic moral theologians to follow orders regardless of the orders’ reasonableness or moral permissibility. Yet, clearly, apart from this, probabilism could and was used in many cases to facilitate the accommodation of individuals to orders, regulations, or predominant opinions.

(2) Application B: Defusing conflict about deviations from common opinions

The second major application of probabilism is almost the converse of the first. It occurred in favor of the opinion of individuals or minorities who see

⁵⁸See Vazquez (1606), q. 19, disp. 62, cap. 4, n. 14.

themselves confronted with a common or predominant opinion of others. Moral theologians and casuists of the seventeenth century analyzed a great number of practical moral problems. The most extensive handbook of casuistry comprises roughly 20,000 cases.⁵⁹ Different solutions for the majority of cases were discussed and evaluated as probable, improbable, or more/less probable. Take the case of a raped girl who did not fight an assailant as forcefully as she could have. Zaccaria Pasqualigo (1600–1664) assumed the opinion to be common among lawyers and moral theologians that the girl shared some guilt in her defilement (*stuprum*).⁶⁰ As a common opinion (*communis opinio*), this view appeared *ceteris paribus* to be more probable according to the standards of scholastic jurisprudence or moral theology, although the nexus between commonness of an opinion and greater probability was anything but firm (see Chapter 5). Pasqualigo opposed the common opinion and supported the minority view that the girl did not have to shout for help and violently fight a rapist in order to avoid complicity in her own defilement (or even face the accusation of having seduced the man), if she otherwise risked being seriously harmed. It only had to be clear that she did not consent. “I judge (*existimo*)”, wrote Pasqualigo, “that in this case the girl need not outwardly resist and that it suffices to show as much resistance as she safely (*commode*) could”.⁶¹

Probabilism was particularly suited as a doctrine for the choice of opinions to allow a confessor, lawyer, or any official judging the girl’s conduct to adopt the opinion of Pasqualigo. His opinion could have been considered probable because he was an expert of moral theology. One major question at the time was whether the opinion of a single expert alone, which stood against a commonly held opinion, could be considered probable, as many probabilists claimed (see Chapter 6). However, even if a community of lawyers arrived at the conclusion that every colleague who aspired to be reasonable must consider the common opinion in question as being more probable, this would not impugn a decision in favor of Pasqualigo’s view, maybe by a judge or confessor who pitied the girl or was stubbornly convinced that a female ‘no’ should in fact suffice. The point here is that the medieval permission to follow an opinion that the agent considered more probable after diligent and reasonable consideration could be infringed by denying that the agent’s

⁵⁹Diana (1636). On Diana, see Burgio (1998), Fleming (2017).

⁶⁰Pasqualigo (1641: 407), decisio 457.

⁶¹Pasqualigo (1641), dec. 457, summarium: “Existimo quod tunc non teneatur actu exteriori resistere. ... Et proinde sufficit si tantum adhibeat illam resistantiam, quam commode potest”.

judgement with respect to the greater probability of an opinion was reasonable. It was (and is) much easier to argue that an opinion is at least probable (or adoptable by reasonable agents) than to justify that it is the most probable or most justified opinion. To use a modern example, few moral philosophers will deny that utilitarianism is a reasonably tenable moral theory – after all, many reasonable persons endorse it. However, many will deny that utilitarianism is the most justified moral theory. In light of such difficulties of justifying judgments of maximality, the probabilist permission to act according to any probable opinion eased tensions and rendered disputes about greater probability moot in practice. This made it easier for individuals or minorities to stick to their opinions by removing causes of intellectual conflict that opponents might use to their advantage.

(3) Application C: Compromise

Application C is related to B, but explicit compromises or negotiations play a stronger role in it. In a politically highly charged analysis, the master casuist Antonino Diana (1586–1663) dealt with the thorny question of levies (*donativo*) in Sicily for the Spanish war effort in the 1620s and 1630s.⁶² The huge levies impoverished Sicily, but appeared legitimate because the local nobles and decision makers were, of course, obligated to support their overlord in war. It was not so clear, however, whether the acquired means were put to best use by the Spanish crown. Members of parliament in Sicily thus faced a tough choice. On the one hand, they were mandated to grant the Spanish crown the means it needed. On the other hand, responsibility for Sicily called for a critical attitude towards the crown's demands. In Diana's careful analysis, the traditionally recognized demands of the crown remained more probable, but the members of the Sicilian parliament could claim a probable position in particular cases in casting deviant votes. As a result, both sides received some recognition based on which they could operate in negotiations. In my interpretation, it is important that Diana's analysis offered a particular ascription of greater and lesser probability as a compromise to both sides, seeing that a political compromise could be based on it. Thereby, Diana artfully employed the possibilities of probabilism.

⁶²On the case and its political ramifications, see Burgio (1998: pp. 34).

(4) *Application D: Doxastic choice*

In the second half of the seventeenth century, probabilism was linked to the possibility of a specific kind of doxastic choice (that is, choice of assent to a proposition). Some probabilists argued that an agent could reasonably decide to assent to an opinion he or she considered less probable than a counter opinion, if the opinion in question was at least considered as being probable. This bold epistemological claim will be addressed in Chapter 10 and need not preoccupy us now. In its initial decades, probabilism was, as outlined, usually *not* justified based on the possibility of such doxastic choices.

Applications A–D show that probabilism could be used in diverse and even contrary ways. It was a multi-purpose tool of Catholic moral theology, and any assessment of probabilism needs to take this into account (Miriam Turrini called probabilism a ‘double-edged’ weapon).⁶³ On the one hand, probabilism facilitated accommodation to authoritative or power-backed opinions (A), on the other, it also facilitated the opposite attitude (B) or a compromise between both (C).

With respect to (A), it is important to note that compliance was *not* driven by the particular authority of the opinion the agent agreed to follow. On the contrary, an authoritative opinion in the sense of an opinion accepted by the Church as binding would have at least been styled as more probable than its alternatives, but more likely as a certainly true proposition. Everybody was called up to adopt such opinions or propositions as true or at least most probable. Hence, the traditional approach of medieval tutorism would have sufficed to account for the choice of an opinion on the basis of its authoritativeness. Probabilism, by contrast, allows following opinions that lack extraordinary authoritative standing. The reasons for following a less probable and less safe opinion under probabilism arise on other grounds. As probabilists assured their addressees, choosing the less probable and less safe side can sometimes be useful (*utilis*), advantageous, prudent or even necessary

⁶³Turrini (1991: 175).

due to circumstantial and extraneous obligations, e.g., of justice, obedience to a superior, or a given promise. In modern ethical terminology, probabilism thus opens a window for consequentialist considerations, either self-centered or with the common good in view, or it makes room for secondary deontological claims which would have otherwise been overridden by a duty to prefer greater probability or safety.

Application (B) documents that agents could insist on standing by their own opinion and invoke probabilism as a justification therefore. It is true that most agents would in such cases consider their preferred opinion as being better founded (i.e. more probable) than all alternatives, but that does not render probabilism moot. The agent's judgment of greater probability might still be challenged as not being reasonably defensible, and permission to follow greater probability was subject to the condition of reasonable consideration. An option to downplay issues of greater probability therefore opened new venues for agents and helped to avoid conflicts. An agent could always respond: no matter whether my opinion is more probable than yours or not, it suffices that its probability is at least reasonably assumable. I take this 'irrelevance claim' with respect to disputes about better justification to be an important characteristic of probabilism's application B.

Application (C) also relies on the outlined 'irrelevance claim', but goes one step further by assuming that the ascription of order relations between probabilities is negotiated between agents. That is, although an agent considers his opinion to be the best one, he may outwardly acknowledge it as being less probable. He or she thereby concedes something to the other side and can expect a concession in return. The concession associated with probabilism is an entitlement to act according to the agent's own opinion, even though it was acknowledged as being less probable. Yet why should a powerful agent be interested in making such a concession? We should be aware that even in the seventeenth century, formerly referred to as 'the age of absolutism', secular or ecclesiastical rulers were not as absolutely powerful as the propaganda of absolutism would like us to believe.⁶⁴ They often had to mitigate their demands to achieve compliance. The Pope and other relevant decision makers in the Catholic Church were often not able to impose their views in a straightforward and effective way on Catholic princes, rival prelates, other rulers (e.g. the Chinese emperor), or even the general public. Inasmuch, the image of rigid 'control and discipline' of the Counter-

⁶⁴On the shortcomings of the historical concept of absolutism, see Henshall (1992).

Reformation, no less than the ideology of absolutism, reflects a normative ideal more than a real fact. Even Jesuits, who had sworn obedience ‘like a cadaver’ to the Pope and their superior, did in fact often enough disobey.⁶⁵ What was therefore needed was a strategy of compromise to safeguard sufficient unity in the Catholic Church, while allowing for negotiated outcomes and flexibility in practice. With the help of probabilism, Catholic hierarchs could continue to propagate their views as uniquely most probable, while (with limitations) tolerating deviant action by agents whom they could not fully control. This does not, of course, explain why such an option had not already been embraced in the Middle Ages, when the power of Catholic hierarchs was no greater than in the seventeenth century. But the Reformation, the early modern wars of religion, and the global expansion of Christianity added a premium on defusing doctrinal battles. This may have helped pave the way to peace between the Catholics and Protestants in the seventeenth century, as the example of the arch-probabilist Juan Caramuel demonstrates, who argued for peace in the Thirty Years War on request of the Habsburg emperor.⁶⁶ Most importantly, however, probabilism helped to practically defuse disagreements about the best strategy to interpret, defend, or reform Catholicism, and to thus keep the Counter-Reformation on track as a collective endeavor. Finally, Catholicism could only spread globally if it avoided doctrinal battles with powerful non-European leaders. The Chinese emperor was simply too powerful to be doctrinally dominated, and Catholic priests in China thus held mass in Mandarin robes. Insofar, probabilism offered early modern Catholicism specific strategies of compromise, which helps explain the temporary triumph of probabilism in Catholic moral theology.

But how could so much flexibility be squared with the strong role a person’s conscience played in Christian morality? The former option of deposing one’s conscience finally brought the judgment of conscience in line with one’s deeds through a change in moral judgment, or it prevented moral conflict by suspending assent. By contrast, probabilism made it possible to consider action *p* morally most likely right but at the same time do non-*p*. This could only be justified by distinguishing different levels of consideration. First came the level of a person’s considered probable judgment. After having arrived at a judgment, a diligent reasoner would more often than not realize

⁶⁵See Catto (2009); Gay (2012); Mostaccio (2014).

⁶⁶See Fleming (2006), Chap. 3.

that other competent reasoners hold opposite views with respect to the same question. On a second, ‘reflexive’ level, as it was called by scholastics, the agent could decide how to deal with the resulting plurality of probable opinions. This second level also entails an all-things-considered action-guiding judgment of conscience. An agent could therefore, based on probabilism and all things considered, believe that it was certainly morally right to follow an opinion he deemed to be more probably wrong on the first level of consideration. There is no contradiction here, and the Christian requirement to do what one’s conscience demands, all things considered, is satisfied. Note, however, that the general thrust of this solution does not depend on religious premises and can also be realized in a secular ethics. It is not uncommon to consider it morally licit to vote for candidate A, thus giving precedence to the all things considered primary aim of unanimity in a group, despite one’s in no way relinquished (‘deposed’) belief that candidate B is the better choice.

2.3 Epistemological and moral justifications of probabilism

Probabilism was a novel doctrine, and its justifications played a key role for its rapid dispersion. The most important justifications were discovered early on: by roughly 1610, the main pillars of probabilism were in place, although most of them required further elaboration. Four justifications stand out as particularly interesting from a scholastic as well as from a modern perspective, and will be discussed here.⁶⁷

(1) *Information search – Overburdening*: The first justification of probabilism addresses problems of information search. If moral agents and confessors had to reliably determine which of two (or more) opinions was the most probable, they would be compelled to spend an inordinate amount of time and resources on this endeavor. In practice, people ought to be entitled to take action after a moderate effort of collecting action-relevant moral information. According

⁶⁷Scholastic authors usually discussed many more reasons for or against probabilism. For instance, Merenda (1655), praefatio, n. 48, has sixteen reasons; De Angelis (1667), lectio 3, has seventeen. My choice is partly guided by assumptions of present philosophical significance, but the highlighted considerations are also among the most incisively discussed in the early modern debate on probabilism.

to probabilists, everything else would constitute an intolerable burden (*onus intolerabilis*).⁶⁸ Hence, agents should be *prima facie* allowed to act according to an opinion if they found weighty reasons for its truth or a sufficient number of experts supporting it. These were precisely the conditions that rendered an opinion probable in line with new characterizations of probability around 1600, so that any probable opinion might be endorsed even if further reflection or information searches would have revealed another opinion to be more probable. The wide prevalence of this argument in texts on probabilism verifies how seriously concerned early modern moral theologians were with limiting the epistemic burdens of right moral agency. A calibration of due effort had always been a moral issue. In the Middle Ages, it was apparently largely left to confessors whether they demanded (and undertook) strenuous efforts to determine what the right solution to a moral problem was. Low burdening was associated with Jesus's statement "My yoke is easy and my burden is light" (Matthew 11:30), which visibly gained ground as a directive of moral theology after Jean Gerson, the chancellor of the University of Paris, championed it in the early fifteenth century. As a justification of probabilism it finally became a consciously fleshed out trademark of the benign way (*via benigna*) in Catholic moral theology.

(2) *Moral and epistemic satisficing*: A second justification of probabilism relies on what in modern terminology might be called moral or epistemic 'satisficing'.⁶⁹ In modern theories of decision and action, 'satisficing' denotes an attitude of satisfaction with a good, even though more of that good would have been at hand.⁷⁰ That is, the agent does not care for getting more (or the maximum) of a good as long as she gets a sufficient amount of it. Some theorists claim that basing rational action on satisficing is sufficient. Hence, if you are offered a choice between two assets, one worth five billion and the other fifty billion euros, you are not irrational when opting for the smaller asset. You may consider five billion euros as being enough and rationally refuse to strive for greater wealth, even if fifty billion euros would suit your preferences better and more firmly. In a roughly similar manner, early modern Catholic theologians claimed that Christian morality (and hence God) only required people to do good, not to strive for the best. Christians did not sin by

⁶⁸See Suárez (1856), vol. 4, tract. 3, disp. 12, sec. 6, n. 8; Fagnani (1765), n. 255; Merenda (1655), n. 74.

⁶⁹For this justification of probabilism, see also Schwartz (2014: 381); Tutino (2018: 46).

⁷⁰See Byron (2004).

being content with leading ordinary decent lives instead of pursuing holiness. The pursuit of holiness might be meritorious, but it was not a duty. Juan de Salas, a Jesuit professor of theology at the prestigious Collegio Romano, was apparently the first probabilist to support this view in justifying probabilism:⁷¹

“Although sometimes an opinion is better than another, nobody has always to follow the better, because it is not necessary to do the best, but [only] the good.”

Salas did not immediately provide a more in-depth explanation for this claim but addressed the issue elsewhere when discussing the interplay between intellect and will.⁷² Medieval scholastics had already debated whether it is the intellect or the will which is the nobler faculty, and how independent the will is from the intellect’s guidance. A preponderance of the intellect was the orthodox Thomist position, which at the end of the sixteenth century was uncompromisingly expressed by the Jesuit Gabriel Vazquez, an eminent opponent of Salas. Vazquez claimed that the will cannot act without and against the intellect’s judgment. That is, in terms of final practical considerations, the will has to abide by what the intellect considers to be best. This claim sparked a decades-long discussion, with Salas as one of the first, but by no means the last, of Vazquez’s opponents. This debate morphed into a broader discussion of doxastic voluntarism in the middle of the seventeenth century (here: the claim that the will can cause assent to what the intellect considers to be less probable, see Chapter 10). For now, it may suffice that Salas linked moral satisficing to the will’s freedom and to its natural aim, the good. He claimed that a person (through her will) can choose to sin despite recognizing sins as bad and worse than alternative courses of action. In other words, the will can prefer the worse, and human beings may consciously choose evil, notwithstanding their intellect’s insight that it is evil. In a similar but less dramatic fashion, we may opt for the lesser epistemic good and prefer a less probable opinion to a more probable one (but, as shown above, Salas made clear that he did not necessarily speak of assent to a less probable

⁷¹Salas (1607: 1202), tract. 8: “[L]icet aliquando una opinio sit melior altera, tamen non tenetur quis semper meliorem sequi, quia non tenetur facere, quod melior est, sed quod bonum est”.

⁷²Salas (1607), tract. 6, n. 57. Note that moral satisficing (the idea that it suffices to do good but not the best) did not arise with probabilism but had been postulated before. See, e.g., Azpilcueta (1593), c. 27, n. 285 or Fumo (1560), v. opinio, n. 2: “Item licet aliquando una opinio sit melior altera, tamen non tenetur quis semper meliorem sequi, quia non tenetur facere quod melius est, sed quod bonum est”.

opinion). In contrast to choosing evil, Salas argued that choosing the lesser probability was not sinful and wrong, because it did not conflict with the appropriate aim of the will. The appropriate aim of the will is ‘the good’ (*bonum*), not ‘the best’ (*optimum*) or ‘the better’ (*melior*). Since probability is directed towards truth—the intellect’s natural aim—a less probable opinion stands in an analogous relation to the epistemic best as a sufficiently morally good action to a morally optimal action. Since the will might legitimately prefer the good to the better, it might also prefer mere probability to greater probability. Epistemic satisficing is thereby modeled on moral satisficing and justified by it.

This was a promising step, no least because moral satisficing had strong support in the scholastic tradition, as the case of John of Saint Thomas documents.⁷³ The aptly named Dominican friar John of St. Thomas (aka Joao Poinot, 1589–1644) was perhaps the most prominent Thomist of the seventeenth century. It is one thing for epistemic satisficing to be defended by Jesuits, of which more than a few had a knack for daring propositions, and another to be endorsed by a beacon of Dominican Thomism, whose view gave credence to an interpretation of Aquinas as an advocate of moral satisficing.

In the long run, the debate on probabilism revealed that moral and epistemic satisficing required a more elaborate justification than that offered by Salas. If a less probable opinion could be followed on the basis of epistemic satisficing without assent, the question arose why assent to a less probable was not also considered epistemologically legitimate. If a lower probability was sufficient to placate the intellect in the first case, why not also in the second? Many probabilists came to assume that epistemic satisficing did indeed justify assent to less probable propositions and embraced elaborate forms of doxastic voluntarism to explain how this was possible. In any case, with or without assent, the satisficing approach became a pillar of probabilism in the seventeenth century. Note that it can also be linked to problems of overburdening. A duty to choose the epistemic or morally best instead of merely the good can burden an individual by preventing the realization of wants and desires which could, however, be realized under the auspices of the sufficiently good, albeit not the best. The difference to justification (1) is that

⁷³Poinot (1711), disp. 12, art. 3, n. 12: “Non teneri aliquem sequi quod prudentius apparet neque ex parte rei cognitae, aut volitae, neque ex parte modi cognoscendi ... nec tenetur semper eligere utilissimum et optimum, neque ex parte directionis, seu modi cognoscendi, quia non tenetur quis esse prudentissimus et majori claritate, vel scientia procedere, dummodo sufficienti prudentia utatur, ita ut temerarie et imprudenter non procedat”.

a renunciation of information search is not the central issue. Satisficing refers to alternatives whose greater or lesser probability or goodness are already assumed by the agent.

(3) *The principle ‘in doubt, the position of the possessor is better’ (Possessor Principle):* A third justification of probabilism is based on a principle of property law, which states that when ‘in doubt, the position of the possessor is better’ (*in dubiis melior est conditio possidentis*). This Possessor Principle, as I call it, was already in use in the Middle Ages, but only for legal cases of disputed ownership. It applied to goods, such as real estate, textiles or mules, for which contractual agreements could be made, but not to thoughts, opinions, or abstract entities, such as ‘freedom of choice’. This was to change in sixteenth century moral theology and contract law, in the wake of an increasingly general use of the idea of property rights, prompted by *The Sevenpart Work on Contracts* (1500), Konrad Summenhart’s monumental treatise on the morality and law of contracts. The broader import of these developments has recently begun to be explored, but is not pursued here.⁷⁴ For us, what matters primarily is that the Possessor Principle was increasingly applied in the sixteenth century’s court of conscience, benefitting the position of a possessor of abstract liberties, such as being unbound by a vow, which previously had not fallen under the principle’s scope. By the end of the century, probabilists used the Possessor Principle to generally vindicate the adoption of a less probable opinion in the face of a more probable one.⁷⁵ The great Francisco Suárez was apparently the first to argue on the basis of the assumption that a person who held an opinion was its possessor. Confronted with another opinion which the respective person acknowledged to be more probable, she might ask herself whether she had a duty to relinquish her opinion. The Possessor Principle in its traditional interpretation implies that those who want to deprive a possessor of her possession incur the burden of proof of unlawful possession. A mere greater probability of the accuser’s claim does not amount to sufficient proof – only a claim’s practical or moral certainty does. Practical or moral certainty in the terminology of the time implied that a claim’s validity (or the truth of a proposition) was beyond reasonable doubt.⁷⁶ This

⁷⁴See Decock (2012); Varemaa (2012).

⁷⁵See Ruffini Affondo (1929); Schuessler (2006b); Tutino (2018).

⁷⁶On the concept of reasonable doubt and its history in law, see Whitman (2008). Waldmann (1959) ignores the Latin sources.

was not possible as long as a counter-proposition remained probable. Hence, merely the greater probability of an alternative opinion did not suffice to deprive the possessor of a less probable opinion of its use as a premise of action. A person who could with probability believe that a vow she had rashly made was not valid, was therefore not bound by that vow, even if she acknowledged that the validity of the vow was the more probable assumption.

Some probabilists, again spearheaded by Juan de Salas, explicitly argued that the possessed good was not an opinion but the agent's freedom of choice. Moral or epistemic obligations deprive the agent of this freedom, binding him to a particular course of action. (For this claim, see also the discussion on the Uncertain Law Principle below). Hence, the validity of an obligation must be certain beyond reasonable doubt in order to justify a restriction of an agent's freedom of choice. Mere greater probability again did not do the job, leaving the agent free to choose, and this implies freedom to follow a less probable opinion in practice. Probabilists explicitly called this entitlement a right, in fact, a liberty right. It was a right of possession with respect to one's freedom of choice (*ius possessionis libertatis*).⁷⁷ Consequently, morality (including theologically grounded morality) was treated as an external constraint, whose scope was determined by epistemic thresholds, and in particular a requirement of at least practical certainty for a constraint. That is, moral restrictions had to be valid beyond reasonable doubt to become binding in practice. Opponents of probabilism regarded this assumption as a scandalous vindication of unruly human liberty. They therefore tried to curb the power of the Possessor Principle by distinguishing between contexts in which the agent was to be considered a possessor of his freedom and others in which other agents—such as God, morality, a superior, or a contract partner—were in possession of a title to the agent's compliance.⁷⁸ In these cases, the Possessor Principle could be invoked against an agent's free choice. Under the premises of probabilism, however, conditions that made the use of the Possessor Principle possible against individual freedom of choice had to be valid beyond reasonable doubt (and most of these remained disputed between scholastics), before they could restrict an agent's freedom. God, of course, was the ultimate possessor, but since his will had to be interpreted by

⁷⁷See Salas (1607), tract. 8, sec. 6, n. 66, probatur 3; Filliucci (1629), tract. 21, cap. 4, n. 159: “pares rationes probentes obligationem & libertatem, ius possessionis libertatis praeponderabit”; Schwarz (1743), I, tit. 1, instructio 5, § 4, resp. 2; and Schuessler (2006b).

⁷⁸See, e.g., Mercori (1658), pars II, art. 29; Fagnani (1765), n. 190-211; Gonzalez (1694), diss. 7, §12; Palanco (1694), q. 21; Concina (1751), lib. 3, diss. 8, cap. 2.

human beings, their interpretations had to be certain if they were to bind, and most moral theological interpretations remained disputable as long as the Church did not assert its teaching authority, which was not the case with respect to a determination of the Possessor Principle's correct application. The use of the Possessor Principle in Catholic moral theology therefore remained a bone of contention between probabilists and their opponents.

Two further observations may be in order at this point. First, the hardnosed deontological claim that 'everything that is not clearly prohibited is permissible' runs counter to Christian virtue ethics. This is one main reason why modern (i.e. post-French Revolution) Catholic theologians often found the Baroque morality of the more radical probabilists distasteful. Second, modern observers might have difficulties understanding how a freedom-centered justification of probabilism could arise against the background of the Counter-Reformation's oppressive fire-and-sword strategies. This, indeed, is a problem that deserves more in-depth discussion but can presently only be broached. The key to this problem, I believe, is that atheism or 'heretical' beliefs were considered to be improbable (i.e. unreasonable), and hence did not come under the protection of the probabilist *ius libertatis*. Probabilism is about a generous license to hold opinions that are categorized as being reasonable. This enabled probabilists to become effective heretic hunters (to the best of my knowledge, none of the more prominent probabilists was a witch hunter), and at the same time respond sensitively to reasonable demands of other cultures, such as the Chinese.⁷⁹ Probabilism defended a freedom to act reasonably, including the freedom to not act most reasonably, though unreasonable action was not protected, and of course all this conditioned by early modern and Catholic views on what could reasonably be defended.

(4) *The Uncertain Law Principle*: The Uncertain Law Principle claims that uncertain laws as well as uncertain precepts and commandments fail to bind (*lex dubia non obligat*). Together with the Possessor Principle, this principle formed the second fundamental 'reflex principle' of probabilism. A reflex

⁷⁹The attitude of probabilists to 'heretics' (or Muslims or Jews) is an interesting domain of investigation about which unfortunately not much is known. Different probabilists apparently adopted different attitudes, and some may have pushed for a benign integration strategy for reconquered Protestants. But probabilist attitudes to 'heretical' ideas is a separate area of study, which cannot be covered in the present book.

principle allows a decision concerning the permissibility of an action on the basis of reflexive (see above), second-order, or ‘meta’ considerations. The most relevant reflexive assumption of probabilism was that actions are permissible if their permissibility is not ruled out certainly enough.

Francisco Suárez was again apparently the first author who used the Uncertain Law Principle to justify probabilism. In scholastic jurisprudence, the validity of laws depends on their epistemic accessibility because a law has to be promulgated (that is, publicized) to become valid.⁸⁰ Promulgation legitimizes the assumption that an addressee of a law can and must know the law. This is the basis for the principle that ignorance of the law (*ignorantia juris*) does not excuse. Now imagine a case in which the validity of a law is doubtful, not due to any fault of the addressee, but due to an ineradicable disagreement whether the law was put into effect (maybe a document was lost). An addressee will not be able to ascertain the validity of the law even when undertaking his best efforts. Proponents of the Uncertain Law Principle argue that such cases are analogous to an insufficient promulgation of the law, rendering the law invalid as it would be inappropriate to demand an agent’s compliance with a law whose validity could not be ascertained beyond reasonable doubt, even when undertaking best efforts. Moreover, this argumentation was also used in the field of natural law and for moral constraints. Scholastic natural law assumes that its commandments and prohibitions are promulgated through a specific faculty of the mind (usually called *synderesis*). Accordingly, moral insight or moral intuition tell us whether a foundational commandment or prohibition is valid. Most scholastics assumed such insights to be as certain and failsafe for the highest principles of morality as the cognition of basic mathematical or metaphysical truths, such as the proposition that the whole is larger than its parts. But practical moral guidance depends on more specific commandments and prohibitions which result from long chains of reasoning and whose derivation requires additional premises besides the first principles of morality. For this reason, the problems of practical morality usually have no indubitably correct solution, a fact corroborated by widespread and tenacious disagreement between moral theologians on such solutions. For scholastics, disagreement between moral theologians was a main indicator of moral uncertainty, and probabilists regarded such disagreements as proof that a moral commandment or prohibition was not sufficiently promulgated. Hence, from a probabilist

⁸⁰See Aquinas (1948), I-II, q. 90, art. 4.

perspective, moral constraints about which, in modern terminology, persons can reasonably disagree, fail to obligate agents.

Note further that the objective validity of a law or constraint is insufficient to refute the Uncertain Law Principle. Moral realists, for instance, may hold that a moral precept can be objectively valid without its addressees having full epistemic access to this fact.⁸¹ Disagreements on the validity of the precept may arise from a lack or unevenness of epistemic access. Nevertheless, moral realists can regard an objectively valid moral precept as binding, while agents might be excused if they fail to recognize the precept's validity without a fault of their own. But why speak of excuse in this case? The language of excuses is apt if an agent did not live up to a standard of best practice, while her failure to do so is, for some reason, not considered blameworthy. For now, however, we will speak about cases in which even best intellectual practice would not clarify whether a precept is valid or not. Hence, it is misleading to regard the agent's behavior as merely excusable – you need not be excused for not doing something that you could not possibly have done. It is therefore better to assume that an objectively valid precept is not valid 'in practice' or 'for an agent', if the agent could not know about the validity of the precept. Objective validity, which for all practical intent and purposes is inaccessible to an agent, is irrelevant for an agent's moral evaluation and her or his actions according to scholastic and many modern ethical standards. The Uncertain Law Principle builds on these assumptions and furthermore assumes that epistemic accessibility has to be high for a deontologically binding, that is, morally obligating precept.

Finally, it should be taken into account that the Uncertain Law Principle justifies probabilism either in a straightforward or in a more circuitous way. The justification is straightforward if the choice is between incompatible deontic opinions. If a more probable opinion states that action x is prohibited while the less probable opinion claims that x is permissible, the prohibition is not certain enough to bind. Hence, the less probable opinion may be followed. The case is less clear-cut if the opposing opinions are not moral but merely touch upon moral issues (e.g., by triggering moral or epistemic duties of choice). Let the more probable opinion be that Thomism is true and the less probable (but probable) one be that the rival scholastic approach of Scotism is true. How is the Uncertain Law Principle to be applied? One option is to argue that tenacious disagreement about a duty to

⁸¹See, e.g., Sayre-McCord (2015).

prefer the more probable opinion exists. This disagreement manifested itself in the long debate for and against probabilism in the seventeenth century. If we therefore assume tenacious disagreement about the question whether the more probable side ought to be preferred, a duty to do so does not bind according to the Uncertain Law Principle.

3. Discussion and conclusion

Probabilism played an important role in quite diverse segments of the scholastic intellectual edifice. The first and most familiar segment was practical ethics, that is casuistry, the form practical ethics took in early modern moral theology. Casuistry, the art and practice of case-specific moral reasoning, flourished in the seventeenth century. This century is aptly labelled as a period of High Casuistry, marking the all-time apogee of moral casuistry.⁸² Baroque manuals of casuistry comprised up to 20.000 cases. The prospect of competent moral guidance in all venues of human life was so attractive to early modern ecclesiastical power holders, and possibly also to the public at large, that Protestant moral theology finally developed a casuistical branch despite having long repudiated this mode of moral guidance.⁸³ Probabilism allowed for a previously unheard of flexibility and scope in the decision of moral cases. It rendered the search for the probably best moral alternative moot and represented the conviction that good enough reasons will do in the moral practice of burdened but not overburdened ordinary agents. Probabilism created flexibility by widening the opportunities of agents to follow the opinions of others as well as their own. Moreover, probabilism was a strategy of compromise and as such, much sought for in the conflict-prone seventeenth century.

It would, however, be wrong to reduce probabilism to a handmaiden of moral casuistry, as great as its impact in this field may have been. The principled considerations that were required to justify probabilism touch upon important theoretical issues of ethics and epistemology.⁸⁴ This will become

⁸²See Jonsen and Toulmin (1988) and below Chapter 3.

⁸³See Delumeau (1990: 133); Jonsen and Toulmin (1988: pp. 157); McAdoo (1949); Slights (1981), Chap. 1; Selzner (2009). Among the best known works of Protestant casuistry are Ames (1639), Balduin (1654), Baxter (1678), Sanderson (1660).

⁸⁴Recent work on probabilism, such as Schuessler (2014a); Schwartz (2014); and Tutino (2018) draws particular attention to the epistemological aspects of probabilism.

apparent in the course of this book, but the justifications of probabilism broached in this chapter already offer a short outline. Moral satisficing, or satisficing with respect to some good, has not been treated kindly by modern moral philosophy. A duty to do the morally best pervades most prominent modern ethics, such as Kant's or Utilitarianism. Nevertheless, the legitimacy or rationality of satisficing, that is, refusing to maximize beyond a threshold of sufficiency, has recently come under serious scrutiny.⁸⁵ In this respect, today's analytic philosophy gauges the depth of philosophical justifications as differentiatingly as only scholasticism has done before it. In contrast to its moral counterpart, epistemic satisficing is still not clearly visible on the radar of modern philosophy, and the same is true for its combination with doxastic voluntarism. In modern terminology, the crucial claim to be discussed is the epistemological and moral legitimacy of a person's assent to all propositions that could reasonably be held by her epistemic peers, even if the agent regards the propositions in question as less probable after due consideration than alternatives. Several venues of how a person can bring this kind of assent about can be imagined. Is this assumption too abject? As always in philosophy, only inspection will unearth this. Presently, the aim is only to document that probabilism touched upon deep philosophical, and in particular, ethical and epistemological questions.

The antagonism between freedom of choice and moral restriction as highlighted in full profile by the principles of Possessor and Uncertain Law are of general philosophical interest. Under the guise of a legalistically conceived moral theology, these principles claim a freedom of moral choice that is only curtailed by certainly valid moral restrictions. The underlying prerogative of freedom of choice became a major axis along which modern moral philosophy unfolded. According to standard intellectual history, probabilism and Baroque scholasticism hardly contributed to this trend, but most of the respective narratives are uninformed about developments in seventeenth-century scholasticism. It is indisputable, however, that many early modern philosophers were schooled by the Jesuits, who were the main propagators of probabilism. Thus, the rise of a paradigm of freedom in a major current of Catholic moral theology, which was called 'liberty favoring' (*libertati favens*) by its practitioners and opponents alike, right at the time when modern moral philosophy began to emerge, deserves our attention.

⁸⁵See Byron (2004).

It could, of course, be objected that modern moral philosophy did not make use of the specific theses underlying the justification of probabilism, but this is not true in general.

Kant accepted and used both the Possessor and the Uncertain Law Principle in his philosophy, albeit for different purposes than Catholic moral theologians.⁸⁶ However, a different use, or even rejection, are not a sign of irrelevance, and it should be taken into account that the influence of the mighty debate on probable opinions in Catholic moral theology on emerging modern philosophy in the seventeenth and eighteenth centuries has never been scrutinized in depth. In any case, issues related to the Uncertain Law Principle have recently resurfaced in analytic philosophy. The Uncertain Law Principle questions the validity of deontological restrictions under moral uncertainty. This obviously leads to grave problems for deontological ethics, because the validity of restrictions is often disputed, and reasonable disagreement justifies uncertainty with regard to the restrictions' validity. Kant avoided this problem by claiming a priori certain and indubitable moral duties. Most modern philosophers do not buy his claims, thereby vindicating premodern moral theologians who considered moral uncertainty on the level of action-guiding duties as practically ineradicable. Recent studies of moral uncertainty are largely oblivious of this tradition, much to their detriment, but they have at least returned to an important issue that was first analyzed in scholastic theology.⁸⁷ All this documents that the principled justifications of probabilism engender and deal with fundamental philosophical problems. To treat probabilism and anti-probabilism, its nemesis, merely as handmaidens of casuistry or as theological positions underestimates their significance and deprives modern ethics of an important window to its history.

Let us now come to a final issue this chapter will comment on. Probabilism was introduced into Catholic moral theology shortly after the Council of Trent. From 1545–1563, the Council of Trent coordinated the Catholic response to the Reformation and gave shape to a movement that is alternatively called Counter-Reformation or Catholic Reformation.⁸⁸ These

⁸⁶Kant affirms and uses these principles in Kant (1998: 662)/AA 3: 506 (Possessor); Kant (1997: 449)/ AA 27: 127 (Uncertain Law).

⁸⁷See the debate on moral uncertainty in the wake of Lockhart (2000) and Zimmerman (2008). Schwartz (2014: 393) is right that these contemporary approaches do not disclose the rationale for scholastic probabilism, but this is in my opinion due to their narrow understanding of moral uncertainty which almost completely neglects the historical breadth of this concept.

⁸⁸On the debate on the Counter-Reformation and/or Catholic Reformation, see e.g. Bireley (1999); Mullet (1999); Po-Chia Hsia (2005); O'Malley (2000).

alternatives emphasize opposition to the Reformation, on the one hand, and a serious attempt by the Catholic Church to reform itself, on the other. Both perspectives are relevant for understanding what happened in and after Trent, but it is unfortunately not possible to combine them in one term. For simplicity's sake, the label 'Counter-Reformation' will be preferred here, not least because in the present field of inquiry, the differences between Protestant and Catholic dealings with probable opinions are more conspicuous than any parallel attempts at reform. (Protestant moral theology, for instance, did not accept probabilism). This does not, however, preclude that much of Catholic moral theology of the time was concerned with moral reform. It is therefore not intended to downplay the reform efforts of the Catholic Reformation. In any case, the question whether the rise of a momentous new doctrine for the guidance of consciences and the choice of opinions in Catholic moral theology after 1577 should be seen as a result of Trent and as a product of the Counter-Reformation/Catholic Reformation is an interesting one.

As shown, aspects of probabilism's use can easily be reconciled with the standard image of the Counter-Reformation as keen on spiritual control, social disciplining, or suppression of dissent. Moreover, in German speaking historiography (mainly but not exclusively there), the later sixteenth and the seventeenth century are often viewed as a period of confessionalization, that is, a process of confession-building and divergence between Catholic and Protestant principalities and their cultural mindsets.⁸⁹ Since probabilism spread rapidly in Catholic Europe immediately after its conception (see Chapter 3), but was never accepted by Protestants, it corroborates the thesis of confessionalization.

However, with respect to probabilism as tool of the Counter-Reformation, contrary evidence should also be noted. First, there is no sign that Bartolomé de Medina had any counter-reformatory purposes in mind when conceiving probabilism. Moreover, the above outlined non-accommodative and 'liberty favoring' uses of probabilism are hardly compatible with the standard image of the Counter-Reformation. In this respect, a more critical view of received accounts of the Counter-Reformation may be called for. Recent research on the Counter-Reformation increasingly appreciates the diversity of its strands of thought and stratagems.⁹⁰ Above all,

⁸⁹On confessionalization, see Lutz-Heumann (2013); O'Malley (2000).

⁹⁰The diversity of trends and strategies within the Counter-Reformation becomes apparent, e.g., in Bamji and Janssen (2013); Forster (2001); Hersche (2006). These studies also emphasize the negotiability of counter-reformatory demands, a view that is in line with the above sketched

it is difficult to sustain that control and disciplining dominated the policies of the Catholic Church or Catholic principalities throughout the entire Baroque era. It is apparent to all who enter a Baroque church or enjoy Baroque art that the Baroque era was pervaded by a burgeoning sensuality, display of splendor, and blithe appreciation of nudity. The first stirrings of this trend can be detected early in the seventeenth century, and they contrast starkly with the earlier austere attitudes of saintly bishops of the Counter-Reformation, such as Carlo Borromeo. Was the Counter-Reformation therefore already over around 1600 or at least 1618, at the outset of the Thirty Years War? If it is believed that the Counter-Reformation practically ended in the early seventeenth century, then probabilism as the quintessential instrument of a 'lax' Baroque morality can be deemed a main force towards its termination. However, the assumption of such an early end of the Counter-Reformation is unconvincing. Neither Paul V (Pope: 1605 –1621) nor Urban VIII (Pope: 1623–1644), two characteristically 'Baroque' Popes, gave up policies of reconquering lands and souls that had fallen to Protestantism. Given this aim as the main rationale of the Counter-Reformation, its earliest in my opinion acceptable (but in no way obvious) end-date would be 1648, the date of Westphalian peace. Under this premise, moral leniency needs to be integrated into the narrative of the Counter-Reformation. Doing so helps to account for particularly lenient trends in sexual ethics, as exemplified by Tomás Sanchez' *De matrimonio* (1602), which became manifest even before the papacy of Paul V. The strategic value of moral leniency as opposed to Calvinist rigorism to win over people for Catholicism again should be obvious. It suggests a classical stick *and* carrot approach, which was apparently both much used by Counter-Reformation theologians (but not necessarily by the same theologians). The Jesuit Alfonso de Sarasa (1618–1667) pointedly chose the title 'The Art of Always Being Happy' (*Ars semper gaudendi*) for his book on moral theology.⁹¹ An exclusive focus on the stick as an instrument of the Counter-Reformation might therefore be misleading. Moreover, the outlined negotiative and compromise uses of probabilism harmonize well with new approaches to the Counter-Reformation that stress the role of negotiation

'compromise' use of probabilism. Tutino (2018: 25, 35) also calls for a differentiating view of the Counter-Reformation. She regards probabilism as a reaction to the strains under which the Reformation put Catholicism and quotes Paolo Prodi that the Christian conscience in the Counter-Reformation was permeated by a dialectic between rule and freedom.

⁹¹Sarasa (1664). The second volume of this book deals with moral theology, the first, tellingly, unfolds a theodicy.

between those who want to impose control and those who have to face their aspirations.⁹² To sum up, nothing can be said against regarding probabilism as a product of the Counter-Reformation, if the latter is conceived broadly enough.

⁹²See, e.g., Hall (2013: 4) who calls for a negotiation perspective to understand the interaction between Catholic regulators, Catholic hierarchs, and artists in the production of art after the Council of Trent.

Chapter 3: Probabilism and Anti-Probabilism – Interlocked Lifecycles

The uses and justifications of probabilism outlined thus far depict a doctrine, the formational period of which was completed by roughly 1620. The theoretical development of probabilism had by no means been completed by then, nor had all its patterns of usage or possible objections been fully recognized. The great debate on probable opinions in the second half of the seventeenth century—and with it, the clash between sophisticated forms of probabilism and elaborate anti-probabilist counter-positions—was still lurking in the future. We will focus in particular on the assumptions and problems this debate unearthed. To gain a better understanding of the context in which these issues were framed, an overview of the evolution of probabilism and anti-probabilism appears useful, including some references to their historical background. Anti-probabilism is used here—as it was in the seventeenth-century debate on probabilism itself—as an umbrella term for the positions of probabilism’s scholastic opponents, for whom it is otherwise difficult to find a common denominator.¹ Nevertheless, a brief overview of anti-probabilist claims will be attempted below (Section 3).

The evolution of probabilism, and to a lesser extent that of anti-probabilism, range from 1577 to the present, and thus call for subdivision. A good starting point for this endeavor is Thomas Deman’s (1899–1954) influential periodization of the history of probabilism.² Deman’s first period ranges from Medina (that is, 1577) to 1656, when the *Provincial Letters*, Blaise Pascal’s popular satirical attack against probabilism and Jesuit morality, were published. That same year, the Dominican Order also turned against probabilism. Hence, in Deman’s view, a first period of success and expansion ends in 1656, and until 1700, it is followed by a period termed ‘probabilism in difficulties’. The French clergy’s anti-probabilist decisions in 1700, instigated by Bishop Bossuet, mark the end of this period, which can be regarded as the official date of the French break with probabilism. The period from 1700 to

¹The title of Gisbert (1703) is *Antiprobabilismus*. Moreover, see the use of the term in Burgio (1998: 179) and Deman (1936: 527).

²Deman (1936).

Alfonso de Liguori, one of the great Catholic moral theologians of all times, is then described as a period of survival and mitigation of probabilism. Liguori (1696–1787), a teacher of the Church like Aquinas, largely formulated his mitigated version of probabilism in the 1760s. Finally, there is a period from Liguori to today, since probabilism has never been officially abandoned by the Catholic Church.

If we compare this periodization with an alternative one suggested by the anti-probabilist Daniele Concina (1687–1756), we find much overlap as well as some differences in emphasis.³ Concina distinguishes a formative period from 1577–1620, followed by the triumphal procession of probabilism through Catholic Europe in the years 1620–1656. He highlights the 1640s as a decade in which sustained opposition against probabilism began to emerge, whereas 1656 marks the date when this opposition became a powerful campaign. In the following period (1656–1690), probabilism suffered serious defeats. Thereafter, from 1690 to Concina's own days (he was mostly active against probabilism from 1740 to 1756), it went into steep decline. The year 1690 refers to the start of Tirso Gonzalez's campaign against probabilism. Gonzalez, a Superior General of the Jesuit Order, published influential treatises against the doctrine in 1691 (unlicensed) and 1694 (with official permission). Concina's is, of course, a thoroughly inimical account of probabilism and its claims of decline should not be accepted at face value. Neither should Deman's, who was also not a friend of the doctrine he expounded, but both periodizations can be used as starting points to structure the evolution of probabilism.

My own periodization will recognizably overlap with Deman's and Concina's, but expunge their anti-probabilist agenda. It will also account for different possibilities of allocating peak periods of probabilism. A first possibility is to regard the unfettered flourishing of probabilism in the first half of the seventeenth century as its apogee. Alternatively, however, the formulation of sophisticated versions of probabilism in this century's second-half can also be considered as indicative of a peak period. With respect to a downturn of the doctrine, the image of a general trend should be avoided. In important regions of Catholic Europe, probabilism remained strong until the late eighteenth century. A clear anti-probabilist rollback only occurred in France, and perhaps in Bourbon Spain after the War of Succession (1701–1714). All this has led me to tone down the narrative of an apogee of

³See Concina (1748), Vol. 1, diss. 1, cap 2–5.

probabilism in the early seventeenth century followed by a crisis and a slump.⁴ This is not to say, however, that I disagree with the periodization of Gonzalez or Concina. They identified important milestones and turning points in the history of probabilism, although I will argue that the import of these events should be interpreted differently

Needless to say, periodizations of historical processes are usually somewhat arbitrary and only suitable for producing rough mind maps. Given the aims of our inquiry, we will focus more on theoretical developments with epistemological import than on Church history or the moral ramifications of probabilism. This said, the assumed periods are:

1577–1620: The rise of probabilism

1620–1656: Probabilism as dominant mainstream

1656–1700: Probabilism under fire. The great debate on probabilism and the rise of anti-probabilism

1700–1773: More debate, new developments, and the geography of persistence

1773–present: Continued existence in Catholic moral theology

1. 1577–1620: The rise of probabilism

Bartolomé de Medina introduced probabilism in 1577 and his doctrine spread rapidly and broadly among Catholic moral theologians. Dominicans, Jesuits, Franciscans, Augustinians, and others quickly endorsed probabilism. The main carrier of its diffusion were the still dominant teachings and writings of Iberian scholastics, who had secured a firm Italian base at the Jesuit Collegio Romano. Many important theoretical underpinnings of probabilism were conceived in this period: the distinction between intrinsic and extrinsic probability (Gabriel Vazquez), satisficing as justification (mainly Juan de Salas), the Possessor Principle and its liberty-centered interpretation (Francisco Suárez, Salas), the Uncertain Law Principle (Suárez). Probabilism also became prevalent in specialized area studies of moral theology, such as

⁴An important role in this respect have also played discussions at a conference on this book and Baroque scholasticism in May 2017 in Munich.

in books *De iustitia et iure* (Leonard Lessius, Salas) or on marriage and sexuality (Tomás Sanchez' *De matrimonio*).⁵ So far, all mentioned authors were Jesuits, which signifies the importance of this order for the early development of probabilism.⁶ In fact, most great Jesuit theologians of the present period contributed to the development of probabilism. Conspicuously lacking in my account are, however, Luis de Molina and Roberto Bellarmino. Molina may have fostered a taste for liberty as a foundation of moral conduct among the Jesuits with his famous doctrine of liberty and grace.⁷ Yet there is, to the best of my knowledge, no explicit reference to Molinism in justifications of probabilism. Nor are pronounced uses of probabilism found in Molina's moral theology. Bellarmino is usually depicted as an opponent of probabilism, but there are good reasons to doubt this view.⁸ In any case, not much can be gleaned from Bellarmino's writings on Medina's doctrine or its reception among the Jesuits. For the rest, the impression that the early theoretical development of probabilism occurred primarily among the Jesuits is certainly correct, but, as indicated, notable representatives of the doctrine existed in other Catholic orders as well. Bartolomé de Medina was a Dominican probabilist as was Domingo Bañez, another luminary of the School of Salamanca. Miguel Salon was an eminent Augustinian probabilist.

Opposition to probabilism was still sporadic in the period 1577–1620. A few writings, such as Paolo Comitoli's *Responsa moralia* combined criticism of probabilism with an attack on the Jesuit Order (in this case from within). Deman tentatively signals that the Jesuit Superior Generals Acquaviva and Vitelleschi opposed probabilism.⁹ Such claims have their roots in the anti-probabilist literature of the late seventeenth century (e.g. by the Jesuit Superior General Tirso Gonzalez, see below), but they appear doubtful. In no case could I find evidence of an anti-probabilist attitude in these cases beyond

⁵Lessius (1612); Salas (1617); Sanchez (1693). On Sanchez, see Alfieri (2010); Lozano Navarro (2000).

⁶However, the influential Jesuit handbook for confessors by Francisco de Toledo (Toledo 1599) did not convey the new probabilist position.

⁷Molina (1595). Molina is – rightly so – missing in Deman's (1936) history of probabilism. However, Molinism fostered an appreciation of liberty among the Jesuits, see Aichele and Kaufmann (2014); García Ocaña (2000); Smith (1966).

⁸For Bellarmino as an opponent of probabilism, see Deman (1936: 497) following the hardly neutral account of Gonzalez (1694) as noted by Gay (2012: 85). Bellarmino issued a positive assessment of the arch-probabilist Tomás Sanchez' *De matrimonio*, thus very likely saving the book from a place on the Index (see Alfieri 2010: pp. 357). This piece of information contradicts the assumption that Bellarmino was an opponent of probabilism.

⁹Deman (1936: 500). Another early anti-probabilist work was Rebello (1608).

general warnings against loose morals, which were often shared by probabilists.

The Collegio Romano had already become an epicenter for the theoretical development of probabilism before the end of the sixteenth century. Most mentioned Jesuit probabilists taught there for some time. This raises the question of probabilism's internationalization. As said, the main authors of early probabilism were Iberian, but this does not imply that only Iberian authors propagated probabilism or only from their home bases. Even in the first period of probabilism, Italy beyond Rome was a home ground of probabilism, as Miriam Turrini has shown.¹⁰ The remarkable English-born Benedictine Gregory Sayer (1560–1602), for instance, taught at Padua. His *Clavis regia sacerdotum* first appeared in 1605, confirming that you neither had to be Iberian nor a Jesuit to be a probabilist in Italy before 1620. Gregorio de Valencia (ca. 1550–1603) taught in Bavaria from the 1570s onward and became the founding father of an important Bavarian (Ingolstadt, Dillingen) school of probabilism.¹¹ Valencia endorsed probabilism in a commentary on Aquinas' *Summa* as early as 1591, and his pupil, Adam Tanner (1572–1632), was one of the first native German speakers (an Austrian who worked in Bavaria and Austria) to publish a probabilist book of moral theology in 1618. Six years earlier, the Belgian theologian Martin Schillebeckx (aka Becanus, 1563–1624), who was a confessor of Emperor Ferdinand II, had apparently first introduced probabilism to Austria. In France, Pierre Milhard (born around 1560) endorsed probabilism in his *Vraye guide des curez, vicaires et confesseurs* (1597).¹² Another early French probabilist was the Jesuit Valère Regnault (1545–1623), who used the doctrine in his *Praxis foro poenitentialis* (1616). Probabilism was then adopted by various French authors on moral theology in the first half of the seventeenth century, apparently fostered by the policies of Cardinal Richelieu.¹³

On the whole, probabilism seems to have rapidly and expansively conquered Catholic Europe. Italy, France, Germany (in particular Bavaria

¹⁰Turrini (1991: pp. 123).

¹¹See Valencia (1592), disp. 2, q. 14; Tanner (1618), disp. II, q. 6, dub. 3, n. 30; Becanus (1617), which first appeared in 1612, tom. 2, tract 1, cap. 4, § 15. These works are discussed in Schmitt (1904).

¹²I only had access to the book's 1603 edition (Milhard 1603), in which probabilism is defended in the unpaginated preface. The place can best be found by looking for the reference 'Notat Hen. de poenit. lib. 3' in the margin.

¹³E.g., Bauny (1633); Bauny (1640); Duval (1636); Gamaches (1627); Raynaud (1629); Ysambert (1648); Fouqueray (1925) is still relevant for this period.

and the Rhineland), and Habsburg Austria (including Bohemia) soon developed strong local traditions of probabilism, which at times achieved international recognition.¹⁴ The assumption of a long Spanish dominance over probabilism is therefore unfounded, although the Iberian Peninsula certainly remained a stronghold of the doctrine. However, comparisons at the national level are in any case misleading to adequately understand probabilism's dispersion. Attitudes towards probabilism could vary within the same country, province, or town, or between monasteries, colleges, and in networks of scholars and clerics. This warning deserves heeding mainly for later periods of probabilism, but it is already mentioned here to put the still somewhat anachronistic use of the word '*international*' for the seventeenth century into perspective.

2. 1620–1656: *Probabilism as dominant mainstream*

By the 1620s, probabilism had laid firm roots in Catholic Europe and its global missions and colonies. For the subsequent three decades, it is possible to speak of a dominance of probabilism, because most Catholic moral theology was probabilist, and casuistry, the case-specific application of practical morality, even more so. Casuistry arose from medieval treatments of cases of conscience (*casus conscientiae*) in confessional practice. After the Council of Trent, these practices were extended and systematized, for instance, through the creation of professorships for casuistry at religious colleges. Not fortuitously, casuistry reached its historical apogee (so-called 'High Casuistry') after the rise of probabilism, which became its most conspicuous tool. In the wake of this process, even a notable Protestant casuistry emerged, buttressed by the rise of Protestant scholasticism.¹⁵ Catholic High Casuistry arguably reached its zenith between 1620 and 1650, creating a labyrinth of institutionalized and expert-guided practical ethics.¹⁶ This is the period in

¹⁴Belgium, an important center of probabilism, is reckoned here as Spanish Netherlands, and thus as Spanish. English Catholic authors, who became famous probabilists, did not, of course, work in England.

¹⁵On Protestant casuistry, see Chapter 2, Fn 83; on Protestant scholasticism (aka reformed scholasticism or Protestant orthodoxy), see Trueman and Clark (2007); Van Asselt (2011).

¹⁶Jonsen and Toulmin (1988) use the label 'High Casuistry' for the period 1550–1650, in which scholastic casuistry flourished most (see also Hurtubise 2005; Quantin 2016; Schuessler 2006; Schuessler forthcoming; Turrini 1991). The limits of this period correspond roughly to the publication of Martín de Azpilcueta's *Manual* of casuistry and Blaise Pascal's *Provincial Letters*, the

which the most famous probabilist handbooks of casuistry were first published: Paul Laymann's *Theologia moralis* (1625), Antonino Diana's *Resolutiones morales* (1633), several works by Antonio Escobar y Mendoza, and Hermann Busenbaum's *Medulla theologiae moralis* (1650).¹⁷ These works went into numerous editions until the mid-eighteenth century. Typical handbooks of casuistry contain simplified ready-to-use advice for confessors and solutions for cases of conscience. Diana's monumental *Resolutiones morales* marks the high-tide of case collection. It comprises roughly 20,000 cases, comprising an invaluable database of Baroque morality. Note that (high-)casuistic handbooks often presented several probable solutions for a case, offering their users a set of eligible solutions rather than a definite outcome. High casuistry is an expression of a self-consciously pluralistic morality.

On the whole, it is not a bad idea to associate probabilism's period of dominance with that of High Casuistry, its most prominent application, although this cements the established prioritization of the practical moral side of probabilism over its epistemological implications. The apogee of the epistemological debate on probabilism clearly occurred later in the seventeenth century, between 1650–1690. From the perspective of the present inquiry, it is therefore tempting to shift probabilism's period of greatest flourishing forty years forward in time and associate it with the intricate epistemological investigations that were conducted by probabilists in defense of their doctrine. Tempting as this move might be, it would neglect the fact that probabilism was hardly contested in the earlier period, whereas it was hotly disputed in the second half of the seventeenth century. The temporal

most venomous criticism of casuistry. I roughly agree in the present work with this temporal delimitation of 'High Casuistry', however, preferring a shift to the period 1580 to 1700 because of a stronger emphasis on probabilism, and assuming a further apogee within this period. More important are the differences to Jonsen and Toulmin's characterization of the scholastic casuist approach. They emphasize that casuistical morality did not follow a top-down algorithmic approach in solving practical moral problems, but came close to applying an inductive, bottom-up, 'case law' method that started with the consideration of cases (Jonsen and Toulmin 1988: 4, 6, 7, 35, 124). I agree that casuistical morality was not algorithmic, but it is an (anglo-centric) misunderstanding to liken it to case law. Casuists were guided by rules and principles that were *not* derived from cases of conscience, but rather adopted from Roman or Canon law. It was often not clear how these principles and rules should be applied to particular cases, or under which of them a case was to be subsumed. The respective judgments and discussions were the main business of casuistry. The resulting leeway for a weighing of reasons is aptly described by Jonsen and Toulmin. However, I would not say that such a method is inductive or bottom-up.

¹⁷Escobar, a main target of subsequent anti-laxist and anti-probabilist attacks, had published *Examen de confessores* (1635) in Spanish, but his international reputation was established by the Latin *Liber theologiae moralis* (1646). His most comprehensive casuistic work was the *Universa theologia moralis* (1652). I do not quote the first editions of Laymann, Diana and Busenbaum in this book, but easily accessible editions (usually accessible via google or www-catalogues).

boundaries of a peak period of probabilism therefore very much depend on the issues that matter to an observer, and can be differently assigned for different purposes.

Probabilism's period of dominance in Catholic moral theology largely overlaps with the long reign of Pope Urban VIII (1623–1644). In fact, a significant part of the most prominent and theoretically interesting work on probabilism in that time was dedicated to or protected by the Pope's family, the Barberini.¹⁸ Urban himself and his 'prime minister', the Papal nepote Francesco Barberini, stand out in this respect. Antonino Diana, the most prolific case collector of all times, catered to the Barberini's interests, as did a host of other Theatine authors.¹⁹ The activity of members of the Theatine Order under the Barberini as frontmen of probabilism also documents that the Jesuits did not monopolize this role. Another important non-Jesuit probabilist was the Italian Oratorian Francesco Merolla (1568–1638), who introduced one of the most important distinctions of probability in a work dedicated to Urban VIII.²⁰ Merolla drew attention to the distinction between certainly and only probably probable opinions (see Chapter 9). An opinion was certainly probable if all observers recognized it as probable. It was only 'probably probable' (*probabiliter probabilis*) if there was serious disagreement on its probability, but enough experts vouched for it to render its probability probable. In 1641, Zaccaria Pasqualigo, a Theatine active in Rome and one of the reviewers of Galilei's *Dialogues* in the scientist's trial, postulated that probable probability suffices for a legitimate choice of opinion.²¹ This claim swiftly engendered heated debates.

Probabilism also flourished outside Barberini Rome. A rich culture of probabilist theology emerged in Bavaria, where it remained dominant until the prohibition of the Jesuits in 1773. The doctrine thrived no less in the France of Richelieu and his successor Mazarin. French probabilism, largely represented by the Jesuits of Lyon and some Parisian clerics, was at times flamboyant (for instance, in the works of Théophile Raynaud), but none of

¹⁸For the cultural policies of the Barberini, see Hammond (1994); Köchli (2017); Levy (2004); Mochi Onori and Arcangeli (2007); Rietbergen (2006); Schütze (2007) – and still Pastor (1929).

¹⁹See Burgio (1998: 11, 29). On the Theatines in the seventeenth century, see Campanelli (1987).

²⁰Merolla (1631), tom1, diss. 3, cap. 4, cor. 3.

²¹Pasqualigo (1641), *De opinionis electione*, decisio 18, n. 1+2. The work was approbated by Antonino Diana. Another important work by a Theatine probabilist from the orbit of the Barberini is Delbene (1658). The probabilist Vincenzo Candido, from 1633 Roman provincial and then vicar general of the Dominicans, is another key figure exemplifying the moral latitude under the Barberini in Rome, see Candido (1638-42).

the major internationally acclaimed works on probabilism were written in France or by a French author in the first half of the seventeenth century. However, Lyon was a publishing center of the first order for probabilist moral theology. The Iberian Peninsula, of course, continued to produce notable probabilists in significant numbers.²² Some of them were great practical moralists or scholastic theologians (in particular, Joao Poinso, Juan de Lugo, Rodrigo de Arriaga), but without adding much to probabilism. Only Juan Caramuel y Lobkowitz (1606–1682) was certainly an author who pushed the doctrine forward to new theoretical bounds in the present period (see below).²³ Most notorious among the Iberian authors for fostering an overly permissive morality was Antonio Escobar y Mendoza (1589–1669), a prolific compiler of theologians' moral opinions.

In addition to its wide geographical spread and its independence of political allegiance (France and Spain were arch-enemies in that period), the continued acceptance of probabilism by members of diverse Catholic orders and schools of thought deserves to be emphasized. Dominican, Franciscan, Augustinian, Theatine, Oratorian, and Benedictine probabilists existed in our period – and we should not forget the Jesuits, of course. With respect to schools of thought, key figures of seventeenth-century Thomism, such as John of St. Thomas (aka Joao Poinso, 1589–1644), endorsed probabilism, as did leading Scotists, such as Bartolomeo Mastri (1602–1673) and John Punch (or Poncius, 1603–1661).²⁴ This, together with a lack of more than sporadic opposition, documents that probabilism was a mainstream doctrine in Catholic moral theology in the first half of the seventeenth century.

Richelieu died in 1642 and Urban VIII in 1644, but unsurprisingly, probabilism continued to enjoy strong support for some time. Richelieu's cultural policies were adopted by his successor Mazarin, who, as Giulio Mazarini, had launched his career in the sphere of the Barberini, and some

²²See, e.g., besides the already quoted famous probabilists, Arriaga (1644); Baptista (1648); Castropalao (1645); Cruz (1634); Dicastillo (1652); Granados (1624); Francisco de Lugo (1643); Juan de Lugo (1646); Martinez de Prado (1654); Poinso (1645); Juan Sanchez (1643); Torres (1621); Villalobos (1649).

²³I am not sure whether Moya should be included in this category as well. Like Caramuel, he was a much referred to *bête noire* of probabilism, but I could discover nothing of interest in terms of deeper theoretical respects in his works (see Moya 1670; Moya 1678).

²⁴See Poinso (1663), disp. 12; Mastri (1671), disp. 1, q. 4, n. 66; Punch (1671), tract. de moralitate, disp. 6. On Mastri's probabilism, see Burgio (2006), and on seventeenth-century Scotism, see Andersen (2016). Since the mentioned Scotists were Franciscans, they also document the existence of a Franciscan probabilism in the first half of the seventeenth century. Probabilism continued to be upheld by Franciscan theologians until the middle of the eighteenth century, see, e.g., Elbel (1740); Jeremias de Padova (1747).

powerful clerics who had risen in the curia under Urban, successfully protected probabilism for some additional decades. One of the most influential defenders of probabilism was Francesco Albizzi (1593–1684), a lawyer, assessor of the Inquisition, and cardinal since 1654.²⁵ Albizzi and other similar experts of curial trench warfare ensured that probabilism was never decisively defeated in Rome and in the Catholic Church at large.

2.1 The 1640s: First stirrings of opposition to probabilism and response of probabilists

Probabilists often considered the rise of Jansenism as the main cause for opposition to their doctrine. Jansenism was a Catholic religious movement inspired by Cornelius Jansen (1585–1638), an influential bishop of Ypres in Flanders. Jansen expressed controversial political views as openly as theological doctrines. His attack on Richelieu's policies of alliance with Protestant powers in the Thirty Years War earned him the wrath of the powerful first minister of France. More enduring was the effect of Jansen's rigorist interpretation of Augustine (posthumously published in 1640), which emphasized the role of grace over free will. Opponents, such as the Jesuits, regarded this approach as being too close to Protestantism for comfort.²⁶ In fact, Urban VIII and the Roman curia reacted in 1642 with a ban on Jansen's book. However, Richelieu, Urban VIII, and their successors did not manage to eradicate Jansenism. Association of the persecution of Jansenism with papal and Jesuit policies won it support among the highest echelons of the French clergy, who insisted that French Catholicism should have a distinctly French (that is, Gallican) outlook. Under these auspices, the movement had its ups and downs, but remained influential in France on the whole right up to the Revolution of 1789.

The Jansenists not only survived under pressure and persecution, they fought back against the Jesuits and probabilism, branding the latter as 'the morality of the Jesuits'. Probabilism was clearly at odds with Jansenist attempts to constrain man's degraded nature through strict morality. The first attacks on probabilism by a leading Jansenist thinker appeared in 1643, when

²⁵For Albizzi, see Ceyssens (1977); Quantin (2002: 879, 891).

²⁶See Burckhard and Tanner (2014); Cottret (2016); Doyle (2000); Radner (2016); Strayer (2008).

Antoine Arnauld, together with François Hallier, published a critical *Theologie morale des Jesuites*.²⁷ Yet this was only the first shot in a long battle between Jansenists and probabilists. As a result of the Jansenist campaign against loose morals, probabilism faced sustained and systematic opposition for the first time. The impression that some probabilists tried to convey, namely that opposition to their doctrine was nothing more but a Jansenist conspiracy, is, however, misleading. In 1645, the Jesuit Andrea Bianchi (using a pseudonym) published a book-length criticism of probabilism under the title *De opinionum praxi*.²⁸ (It is not known what motivated Bianchi's attack). Bianchi's book, which can in no way be connected to Jansenism, is important for us because it largely relies on epistemological arguments (or, if you want, cognitive psychology) rather than merely on accusations of loose morals. He claimed that moral choices required assent to the proposition that guided them and that we are unable to assent to opinions we regard as less probable than their negation. These claims played a major role in the probabilism debate of the late seventeenth century, whose epistemological underpinnings thus became increasingly important.

Bianchi's critique was answered by Stefano Spinola, a member of the Somascan Order, with *De libera et prudenti agibilium electione in moralibus* (1648). Spinola claimed that the will can in fact 'bend' the intellect to assent to a proposition that the intellect regards as less probable than its negation. This assumption is characteristic of doxastic voluntarism, the doctrine that the will can command assent even against the contrary inclination of the intellect (or in the absence of any such inclination). Modern doxastic voluntarism is often extreme, claiming a power to assent, even to obviously wrong propositions. Among probabilists, doxastic voluntarism was more moderate, focusing on the will's power to suspend judgment or to produce assent against preponderant probability, but not against evident truth.²⁹ We will discuss these issues in Chapter 10. For the present, suffice it to say that Spinola put the relationship between doxastic voluntarism and probabilism on the scholastic agenda. As already indicated, most early probabilists rejected the view that assent to less probable propositions was possible, or if

²⁷Arnauld and Hallier (1699).

²⁸Gonzalez (1691: 29), diss. 1 states the date of publication of *De opinionum praxi* as 1642. However, I could not verify this date, and the earliest printed edition of the book I could find is from 1645. Hence, this date is used throughout this book.

²⁹See Schuessler (2009a, 2012c) and on scholastic doxastic voluntarism in general Faucher (2015); Eisen Murphy (2000).

so, that it was reasonable. Thereby, they followed the widespread scholastic rejection of a possibility to assent to the less probable. Spinola contradicted this view without explaining in depth how the will was able to do the trick. Francesco Bardi endorsed Spinola's claim in his *Disceptationes et conclusiones morales de conscientia* (1650). Yet only in the 1660s did probabilists begin to vindicate Spinola's claim with sophisticated forms of doxastic voluntarism.

Even before the Bianchi-Spinola exchange, the Cistercian Juan Caramuel y Lobkowitz had already begun to strengthen the defenses of probabilism against nascent Jansenist criticism.³⁰ His *Theologia Regularis* (1638) and *In Benedicti regulam* (1640) are the first in a long series of works defending probabilism by offering improved conceptions of probability combined with new theoretical arguments. Caramuel is probably the best-known representative today of an advanced (and daring) strain of probabilism. Interest in his works has been fueled by a well-deserved reputation as a flamboyant 'Baroque' polymath in the style of Athanasius Kircher (himself a focus of renewed interest today) and Leibniz.³¹ Caramuel was also apparently the probabilist with the closest ties to the rising avant-garde of science and philosophy in the seventeenth century. He exchanged letters with Gassendi, sought contact with Descartes, was part of the progressive *Accademia degli Investiganti* in Naples, and apparently considered himself a contributing member of this avant-garde, as much as a contributor to the tradition of Spanish scholasticism. Caramuel wrote prolifically on mathematics, cryptography, semiotics, architecture, politics, moral theology, probabilism, and many other subjects. The Huygens-inspired mathematics of probability in his *Mathesis Biceps* (1670) will be addressed in Chapter 12.

Caramuel was not the only notable scholastic author in the 1640s who attributed the increasing problems of probabilism to insufficient groundwork with respect to the scholastic concept of probability. Discussions on this issue must have arisen in the Collegio Romano, where a 'frequency view' of probability was pitted against the prevailing view of probability in theology by no less a personality than Cardinal Pietro Sforza Pallavicino (1607–1667) (see Chapter 12).³² Pallavicino was another Baroque intellectual with diverse

³⁰Caramuel referred to a quarrel with Libert Froidmont in Louvain as a motive for defending probabilism (see Fleming 2006: 8). Froidmont supported Jansenism before the dispute about it broke out.

³¹In general, see Dvorák (2008); Lombráña (1989); Pastine (1975); Pissavino (1990); Schmutz (2000). On Caramuel's probabilism, see Fleming (2006).

³²Sforza Pallavicino (1649), tom. 1, lib. 2, n. 116, 117, see also Knebel (2000); Knebel (2001).

interests and a wide spectrum of correspondents within and outside the scholastic world.³³ He started as a protégé of Urban VIII, fell out of favor because of his fondness for Galilei, rose again as a Jesuit, and finally became a cardinal. Pallavicino is best known for his history of the Council of Trent, but he was also a very influential figure in the debate on probabilism. Opponents of probabilism claimed that he had switched sides and become one of the first anti-probabilists in the Jesuit Order in the later years of his life. His shift towards a frequency view of probability seems to confirm this claim, although probabilists pointed out that no definitive evidence for Pallavicino's defection from their ranks exists. The frequency view of probability, which Pallavicino helped develop, soon transformed into one of the most interesting weapons of anti-probabilism. It created a basis for rejecting one of the key tenets of scholastic probability discourse, the assumption that two logically incompatible propositions can both be probable. If 'probable' in general meant 'more frequently true', as the new view postulated (building on Aristotelian precedent), only one of the propositions in question could be probable. In later chapters, we will track how this idea was used by anti-probabilists in the second half of the seventeenth century and how it became a modern interpretation of probability.

To sum up, many of the critical issues that later shaped the debate on probabilism made a first appearance in the 1640s. The issues in question were not yet pronounced enough or backed by enough supporters to make major inroads against probabilism as a reigning doctrine for the use of opinions. But two vectors of the emerging debate are already recognizable: an epistemological front, where probabilists and their critics exchanged philosophical blows, and the practical morality front, where probabilists had to ward off the accusation of fostering 'laxism', that is, overindulgence for loose moral conduct.

2.2 *'Laxism' and its critics*

The fight against laxism was a Jansenist specialty, but by no means exclusive to them. Many contemporary observers, from religiously devout laypersons

³³On Sforza Pallavicino in general, see Affo (1794) and Delbeke (2012) on his fascinating theory of art and collaboration with Gian Lorenzo Bernini.

to theological experts, considered the moral latitude of High Casuistry as being excessive. Modern commentators often echo the allegation that probabilism condoned an all too lax (Latin: *laxis*), that is, permissive and lenient morality.³⁴ The standards of adequacy in morality against which permissive casuists sinned were those of the Fathers of the Church, Aquinas' ethics of virtue according to a conservative interpretation, or simply moral common sense as assumed by a critic. A broad spectrum of authors was criticized as lax; in fact, any author who displeased a conservative moralist could be labelled as laxist. Blaise Pascal, for instance, was particularly prone to smearing any scholastic enemy whose disrepute could further the cause of his Jansenist friends, with the bad smell of laxism in his satirical *Provincial Letters* (1656). One of Pascal's main victims was Antonio Escobar y Mendoza, whose name became a synonym in French for moral subterfuges ('*escobarderies*'). There are, however, only a handful of authors who regularly appeared as paragons of laxism in the anti-probabilist literature: Antonino Diana, Zaccaria Pasqualigo, Tommaso Tamburini, and—almost universally—Juan Caramuel, whom Alfonso de Liguori called 'the prince of laxists' (*princeps laxistarum*).³⁵ The works that rendered these authors prominent as alleged laxists were mainly published in the period 1620–1656: Diana (1633), Pasqualigo (1641), Caramuel (1652), and Tamburini (1654). Fear of laxism is therefore a concomitant of an unfettered probabilism, whose unfolding opened daring directions that antagonized conservative moralists.

Which views sparked accusations of excessive moral leniency? There is a wide variety of moral issues that laxists allegedly treated too permissively. Let us focus on two: sexual ethics and honor killings. Tomás Sanchez caused outrage by arguing that care for the good relationship between a married couple legitimized pleasurable sexual practices, such as petting without intercourse, which had traditionally been rejected. Conservative sexual moralists vehemently opposed such claims, even though Sanchez only argued

³⁴The term 'lax' (*laxis*) was already used in the seventeenth century, but often the respective views were also called 'too wide' (*nimis lata*). See Mercori (1658: 178), pars 2, art. 27 and the title of De Angelis (1667) for *laxior*; Terill (1669), q. 6, ass. 10, n. 25 for *laxitates*. On (alleged) laxism in early modern Catholic moral theology, see Amann (1926); Deininger (1928); Gay (2003); Petrocchi (1953).

³⁵Fleming (2006: 23) lists Escobar, Diana, and Tamburini as laxists besides Caramuel. Deman (1936: 487, 492, 530) mentions Moya, Tamburini, and Caramuel by name as prominent laxists. For Caramuel as *princeps laxistarum*, see Döllinger and Reusch (1889: 30); Fleming (2006: 154); Franklin (2001: pp. 88). The source is Liguori (1779: 76), tom. 1, lib. 1, tract. 2, appendix 3, cap. 5, n. 1: "putarunt aliqui cum Caramuele (laxorum facile Principe): dicentes quod, cessante fine legis adaequato, cesset lex prohibitionis".

for the probable legitimacy of the practices in question. Sometimes even authors otherwise noted for tolerance and broadmindedness, such as Pierre Bayle, found Sanchez too bawdy.³⁶ Yet Juan Caramuel attracted far more opprobrium than Sanchez by suggesting that masturbation was not naturally wrong, but only wrong because it was prohibited, a view that at the time found almost no defenders.³⁷ Moreover, since homosexuality was in the same category of sins as masturbation, his view also had implications for the prohibition of homosexuality. Today, the moral mainstream sides more with Sanchez and Caramuel, and it is not least therefore noteworthy that the allegedly too permissive opinions on sexuality were often consciously considered by their authors as steps towards a modernization of Catholic sexual ethics. They were designed to supersede obsolescent ancient opinions (see Chapter 7), a process that can be interpreted as the updating of a sexual morality that had increasingly lost its grip on ordinary Catholics (already then). As indicated, this intended modernization not only raised the hackles of the more conservative clergy, but also drew some well-aimed shots from avant-garde thinkers, who wanted freedom of thought for science and philosophy, but not in the beds of ordinary people.

The example of sexual morality shows how difficult it is to assess accusations of excessive moral leniency. In many domains and cases, modern observers would not describe the leniency of more daring casuists as too permissive, but rather as adequate. The alleged laxist Antonino Diana was a high-ranking official of the Roman Inquisition, and a lenient inquisitor appears better to most modern observers than a rigorous one. But lest it be thought that alleged laxists were clearly striving for a practical morality that moderns would approve, cases in which modern moral opinion is stricter than Baroque casuistry should also be taken into account. Killing an opponent for a mere act of slander or a slap in the face is no longer considered morally acceptable. We might understand that a Spanish grandee of the seventeenth century had to defend his honor more aggressively than the average modern person, but a license to kill in cases of dishonor goes too far. Moral deregulation is a risky business and its implementation on a large scale inevitably leads to controversial cases. Fortunately, we presently neither need to endorse nor reject ascriptions of excessive leniency or rigor. We may simply conclude that the respective statements are usually highly dependent on the

³⁶Bayle (1740), entry 'Sanchez, Tomas'.

³⁷See Caramuel (1657), fund. 57, and the discussion in Fleming (2006: 17).

perspective of the evaluator and that it is difficult, if not impossible, to establish a neutral perspective.

This non-committal approach is facilitated by the existence of a second dimension of laxism, which is of greater significance for the present inquiry than issues of moral content. An author could also be considered lax if he introduced too weak standards of justification while more demanding standards were called for in the eyes of opponents. Take the standards of external probability. An extreme position assumed that every opinion of a single competent author, however much contested, was probable and thus eligible as a premise for action. Standards of competence were further diluted by ascribing probability-conveying authority to every scholar with professional training in cases of conscience (see Chapter 6). Moral theologians who embraced this view ran the risk of being perceived as lax. The same was the case with authors, such as Pasqualigo, who considered a merely probably probable opinion to be morally eligible.

To gain notoriety as a laxist usually required advocating a combination of several such aspects of leniency. The above mentioned ‘gang of four’ held views that opponents considered too permissive in a material as well as in a formal sense. Yet, as might be expected, the accused did not perceive themselves as laxists. Moral theologians generally vowed to avoid the extremes of rigor or leniency. Hence, rigorists considered their strictness to be the golden mean, and laxists their leniency. Moreover, the aim was to get it right, and most moral theologians were aware that the mean of the observed range of opinions among casuists was not necessarily the right mean. This issue was complicated by the fact that scholastics traditionally distinguished between different schools (*viae*) of thought. Probabilism is associated with the so-called ‘benevolent way’ (*via benigna*), which claims that persons’ actions should be benevolently judged. There was wide agreement that a benevolent approach should prevail with respect to moral judgment. But some authors thought that strictness was occasionally the better benevolence, while others condoned any benevolent interpretation that could not with unimpeachable reasons be rejected. Modern commentators often take sides in these quarrels. Julia Fleming, for instance, defends Caramuel against the accusation of laxism.³⁸ By contrast, I think, without intending any negative valuation, that Caramuel was, indeed, the prince of laxists. If we look at the formal dimensions of laxism as perceived by Baroque scholastics, such as the

³⁸Fleming (2006: pp. 16).

acceptance of stand-alone authority of theologians or merely probable probability, and drop our value judgments, Caramuel in my opinion clearly ranks head and shoulders above his peers. For better or worse, he was the most daring and permissive probabilist ever.

2.3 On the widening of the scholastic pluralism of opinions

The unfettered unfolding of probabilism in the first decades of the seventeenth century was a highly significant event for the scholastic pluralism of opinions. As claimed here, a reflected scholastic pluralism of opinions had existed since the Middle Ages. However, probabilism significantly changed the scope and limits of this pluralism, as became evident during the period we presently discuss. Accusations of laxism from the second half of the seventeenth century usually target an unheard of expansion of permissible uses of opinions in Catholic moral theology in the century's first half. Framed less pejoratively, we might speak of a period in which the space of eligible opinions expanded almost explosively. This claim seems surprising, to say the least, given the image of the Counter-Reformation as bent on restriction and control, and prominent condemnations of new opinions such as Galilei's by the Catholic Church. It is, indeed, somewhat paradoxical that the Barberini sponsored the expansion of the Catholic pluralism of opinions and simultaneously condemned Galilei's Copernicanism. Yet detailed accounts of Galilei's trial show that it did not follow the usual track of inquisitorial proceedings. It may well have been the result of exceptional circumstances, such as military and political threats in 1632 and a disaffected patronage relationship between Galilei and Urban VIII.³⁹

Be that as it may, the expansion of the scholastic pluralism of opinions during the reign of the Barberini is conspicuous. Probabilism, as described, lowered the formal standards for the adoption of opinions by calling any opinion that marshalled strong support by reasons or authorities probable. Probabilists continued to argue that this was not a problem as long as the opinions in question were 'truly probable'. Yet there was no consensus as to which opinions were 'truly probable' in practice. The wide diversity in interpreting this demand, which became apparent after 1620, led to a

³⁹See Blackwell (2006); Mayer (2015).

correspondingly wide expansion of the scholastic pluralism of opinions. This is not to say that the moral boundaries of Catholic moral theology were questioned on all sides. As indicated, a significant liberalization with respect to sexual morality occurred, but attitudes towards alleged heresies did not change, at least on the surface. A subsequent papal condemnation of the claim that heretics are entitled to stand by their views as long as they consider them to be at least probable demonstrates that some probabilists might have undermined the perceived view of heresy, but this issue deserves its own, deeper investigation elsewhere.⁴⁰ Most probabilists were certainly good Counter-Reformation fighters for the Catholic Church.

The expansion of a Catholic pluralism of opinions in the first half of the seventeenth century also had quantitative roots. The number of trained assessors of cases of conscience increased immensely in the wake of better clerical training as imposed by the Council of Trent. The influential Jesuit theologian Juan Azor (1535–1603) still thought that only the opinions of a few dozen notable and nameable authors between 1140 and circa 1560 could be used to create a who-is-who of external, authority-based probability (24 casuists, 44 theologians and 37 canon lawyers; see Chapter 5). Not all of them had commented on all kinds of moral problems so that the branching of moral theology reduced the relevant number of authorities for particular cases. But in the seventeenth century, hundreds of casuists and moral theologians commented on an ever wider range of moral problems – a census in which other sorts of theologians and canon lawyers are not even included. All these authors aspired to be taken seriously as authorities, often as much as the great scholars of the past, claiming that they could see further afield as dwarves on the shoulders of giants (see Chapter 7). Thus, the legitimate Catholic pluralism of opinions did not only widen with respect to content and rules in the seventeenth century, it also relied on an immensely inflated number of authorities, and consequently, because each ‘authority’ added a slightly different angle to a problem, it also became denser (or more ‘fine grained’) in terms of controversial opinions per issue.

⁴⁰There was much discussion on a sentence condemned in 1679 by Innocent XI: “Ab infidelitate excusabitur infidelis non credens, ductus opinione minus probabili” (see Denzinger 1854: 259); see also Cardenas (1670), tom. 1, diss. 5; Quantin (2002: 905). Terill (1669), ass. 1, n. 11 claimed: “Haereticus materialis non tenetur attendere cuicumque dicenti illum esse in errore, nisi afferantur motiva sufficientia ad illud ipsum persuadendum, & ad reddendum illum omnino dubium, & perplexum in fide pristina”. See also Precht-Nußbaum (2007: 424) on attacks against the probabilist Franz Neumayr SJ (1697-1765), who allegedly defended this view.

Scholastic moral theology never abandoned its expertocratic approach. Only trained and experienced theologians were considered competent to judge cases of conscience with authority.⁴¹ However, the inflationary rise in the number of such authorities in the seventeenth century can be seen as a step towards the moral egalitarianism ('Dare to think for yourself!') of the Enlightenment era – on the one hand, because the number of competent evaluators rose significantly, and on the other, because the intellectual distance between an authority and the average well-educated layperson shrank. Every non-descript casuist from a rural theological college had some claim to authority in seventeenth century moral theology. By contrast, even the opinions of highly educated laypersons did not formally matter for issues of practical morality. This must have had some impact on the willingness of the latter to submit to the judgment of moral authorities. Educated laypersons might have been overwhelmed by the intellectual stature of an Aquinas or a Suárez, but hardly by the stature of the bulk-produced casuist, who lived around the corner.

On the whole, the massive expansion of the space of tenable opinions in Catholic moral theology in the first half of the seventeenth century is a seriously under-researched field. We lack an overview of the areas in which expansion occurred and where it was confined.⁴² Nevertheless, a general expansion can be gleaned from theological treatises and handbooks of confessors. What seems clear is that this widening of pluralism did not inadvertently happen to the Catholic Church, but was optimistically considered conducive to its cause by most of its high-ranking representatives at the time, condemnations of unwanted opinions and subsequent second thoughts, notwithstanding.

⁴¹Note that reference in this respect is restricted to scholastic authors. Jansenists, who took the moral views of non-specialists seriously, were usually not scholastics. (For tensions between Jansenism and scholasticism, see the remarks in Goudin (1674: 19), *praefatio*). Daniele Concina also objected to scholastic expertocracy in matters of morality by claiming that confessors need not be trained in casuistry, see Concina (1751), *diss.* 8, *cap.* 9, §5.

⁴²The important field of Catholic economic thought, which I have used to illustrate the dynamics of a pluralism of opinions in medieval scholasticism, is still almost a complete blank after Suárez (or rather Lessius) in the seventeenth century.

3. 1656–1700: Probabilism under fire. The rise of anti-probabilism. Probabilism's defenses. The epistemological debate unfolds.

With the emerging conflict over Jansenism in the 1640s, opposition against probabilism became more organized and systematic. For over a decade, however, this opposition did not take root in the intellectual world of Rome, where powerful enemies of Jansenism were at work and friends of probabilism remained unchallenged. The still ongoing Thirty Years War may have cemented this state of affairs by rendering it advisable for the majority of Catholic hierarchs not to rock the boat by sparking an in-house battle between probabilists and their adversaries in the Catholic Church. The Westphalian Peace of 1648 removed such constraints and rendered it possible to prioritize the consolidation of Catholic rule over the conquest of countries and the wooing of their populations. It was probably not least this altered strategical outlook, which led to shifts in the balance between pro- and anti-probabilist forces in the Catholic Church – a point well illustrated by the ups and downs of Juan Caramuel's career. While Caramuel had been praised—or at least tolerated without much interference—as a Counter-Reformation frontline fighter north of the Alps (in an intellectual as well as in a literally military sense), his career took a notable downturn in Italy in the 1650s. For many former friends, such as Fabio Chigi, the Catholic negotiator in Westphalia, who became Pope Alexander VII in 1655, his daring probabilism was now a nuisance.⁴³

Alexander VII was the first of several Popes who increasingly distanced themselves from probabilism, without ever condemning the doctrine outright.⁴⁴ Around the time of his inauguration, Alexander apparently encouraged the Dominican Order to distance itself from probabilism. He also asked the influential canon lawyer, Prospero Fagnani (1588–1678), to write against probabilism, and Fagnani complied with a densely argued treatise on the use of probable opinions. However, Alexander VII did not himself authoritatively lash out against probabilism. In his inner circle of advisors,

⁴³Caramuel (1663) was placed on the Index in 1664, see Deman (1936: 530); Fleming (2006: 15).

⁴⁴Ter Haar (1904) claims that Alexander VII was a staunch opponent of probabilism, which seems to be an overstatement. On Alexander VII, see Gonet (1700), *diss. de consc. prob.*, *praefatio*; Ceysens (1977: 146); Rosa (1960).

pro- and anti-probabilist heavyweights were neatly balanced.⁴⁵ The background of Alexander's moral policies, therefore, remains to be researched in more depth. In any case, Fagnani's treatise strove to debunk all major justifications of probabilism, but appearing in 1661, it was not the first major assault on the doctrine. As we have seen, this title should be bestowed to Bianchi's treatise of 1645. Yet Bianchi was only known to a few specialists, whereas now a veritable public campaign against probabilism began. In 1656, Blaise Pascal published a highly successful satire about probabilism, casuistry, and the morality of the Jesuit Order. His *Provincial Letters* caused a public uproar and made many high placed persons fear for the image of Catholicism and the Jesuit Order in particular. According to Pascal's well-doctored spin, probabilist morality was notoriously lax, unreasonable, ridiculous and impious. He does not hesitate to slander or pick bizarre examples from the huge stock of documented cases (as mentioned, roughly 20,000 were available in the works of Diana alone), insinuating that they represented the spirit of the entire endeavor. Pascal nowhere seriously contests the pro-probabilist arguments of notable authors like Suárez and others. Nevertheless, or perhaps because of their superficiality, the *Provincial Letters* were an instant literary success. Complementing this success, Pierre Nicole wrote a commentary on Pascal's *Letters*, which appeared in 1658 under the pseudonym 'Wendrock' and contained serious arguments which scholastics responded to. Nicole was a friend of Pascal, and together with Antoine Arnauld, they formed the foremost intellectual trio of Jansenism.

1656 was also the year in which the Dominican Order, prompted by Pope Alexander, abjured probabilism. Although the doctrine had been conceived by a Dominican and endorsed by famous Thomists such as Joao Poinot (aka John of Saint Thomas), the general congregation of the order considered it prudent to distance themselves from probabilism which by then had become highly controversial. Soon, a barrage of anti-probabilist treatises flowed from the pens of notable Dominican theologians, with Giulio Mercori's *Basis totius moralis theologiae* (1658) setting the pace for Dominican anti-probabilism. On the whole, following the Jansenist and Dominican double strike of 1656, a major argumentative war against probabilism ensued, which continued until the fall of the *ancien regime* in the eighteenth century.

⁴⁵See Rosa (1960) on the roles of Cardinals Sforza Pallavicino and Albizzi in the fight against Jansenism, and of Cardinals Bona and Del Casanate as opponents of laxism.

In the 1660s, the controversy over probabilism reached a first culmination point. This is not the place to list and discuss each and every treatise on probable opinions, but some main lines of anti-probabilist advances deserve to be outlined. The French Dominicans published a number of extensive critiques of probabilism.⁴⁶ Prospero Fagnani led the canon lawyers against probabilism. His treatise of 1661 is preceded by the early anti-probabilist work of the lawyer Antonio Merenda (1655), and it is worth noting that lawyers contributed to the fight against probabilism on the Protestant side as well. Samuel Rachel, a follower of Grotius and an antagonist of Pufendorf, wrote *Examen probabilitatis* (1664) in the wake of Pascal's *Provincial Letters*. The University of Louvain and generally the Spanish Netherlands (that is, Belgium) was another seedbed of anti-probabilism. Jansenism originated there and had many sympathizers around Louvain. The Irish-born Jansenist John Sinnigh (or Sinnich, 1606–1666), who taught there, launched one of the most aggressive attacks on probabilism with his book *Saul ex-rex* (1662). Last but not least, Jesuit opposition to probabilism also began to raise its head in the 1660s, after the Jesuit Bianchi had taken the lead in the 1640s. Louis de Schildere, a Jesuit professor in Louvain, published a moderately anti-probabilistic treatise in 1664, which, however, was soon eclipsed in 1670 by Miguel de Elizalde's *De recta doctrina morum*. Elizalde's book was a blockbuster, breaking important new theoretical ground and preparing the way for the mighty wave of Jesuit anti-probabilism in the 1690s (see Chapter 8). Yet Jesuit opposition to probabilism remained scarce before 1690, not least because the publication of anti-probabilist writings was impeded by superiors. Elizalde (1617–1678) published the *De recta doctrina morum* under a pseudonym (like Bianchi) and without permission, creating a veritable scandal which drove him to the relative academic wilderness of San Sebastian, where he finally died.

The growing intensity of the debate on probabilism after 1656 is not only documented by the rising number and caliber of attacks, but also by the growing number and caliber of book-length defenses of probabilism. Pascal's *Provincial Letters* evoked Jesuit responses such as Georges Pirot's *Apologie pour les casuistes* (1658). However, as Pierre Nicole's (that is, Wendrock's) commentary on Pascal is more substantial than the original, Honoré Fabri's rejoinder to Nicole, the *Notae in notas Wilhelmi Wendrockii* (1659) is also more profound than Pirot's work. Juan Caramuel entered the fray with *Apologema*

⁴⁶See Baron (1667); Contenson (1681); Gonet (1700); Labat (1659).

contra Fagnani (1663), countering the arguments of this particular opponent. Defenders of Fagnani did not hesitate to respond with book-length counter-attacks on Caramuel.⁴⁷ The controversy on probable opinions became a veritable battle of books. Several contributions—though not always the most obvious candidates—ended on the Index of Prohibited Books. The workings of the Index congregation were always somewhat erratic, and the likelihood of a book being included in the Index depended much on whether the author had the right supporters in high places, while unexpected lapses of influence could lead to indictments that would have otherwise been staved off. Caramuel, the prince of laxists, managed to toe red lines without personally ever getting into serious trouble – except for lost career opportunities and an Index entry for his *Apologema*. Fabri, as penitentiary of St. Peter more prominently placed in Rome, where he had moved from France, was less lucky. He had to spend weeks in a dungeon of the Inquisition, a fate which Galilei had been spared. Only then could his high-placed friends (led by Cardinal Albizzi) gather enough strength to rescue him.⁴⁸

Apart from some prohibitions of pro- and anti-probabilist books, the 1660s also saw the first Papal condemnation of lax moral opinions that was clearly related to probabilism (preceded by condemnations in France and Belgium). In 1665/1666, Alexander VII condemned 28 opinions, many of which were gleaned from the books of probabilist theologians, without, however, proceeding to condemn probabilism as such or any of its basic principles, standards, and rules. Nonetheless, the condemnation was grist to the mill of anti-probabilism. The next wave of condemnations of lax opinions followed in 1679, and was issued by the rigorist and openly anti-probabilist Pope Innocent XI. In 1690, Alexander VIII prohibited further lax opinions. In all three cases, the doctrine of probabilism was indirectly implicated but not outright condemned. It seems safe to say that Innocent XI would have liked to condemn probabilism, but even this Pope, who was not adverse to conflict, did not dare risk the fallout of such a decision under the peculiar political conditions of his time and for Catholicism as a whole. A too stark alienation of probabilism's supporters in the curia and Catholic hierarchy

⁴⁷See Crespin (1665); Mercuri (1664).

⁴⁸For Caramuel, see Fleming (2006: pp. 15); for Fabri's harsh imprisonment, see Quantin (2002: 895). There are many accounts of Galilei's imprisonment in the palace of the Inquisition in 1633, see, e.g., Shea and Artigas (2003: 187): "After his interrogation on 12 April, Galileo was assigned to a suite of three rooms in the palace of the Inquisition." This was the suite of the chief prosecutor, not a dungeon.

would have deprived Innocent of urgently needed support against Louis XIV.⁴⁹ The power balance in the Catholic Church and in Europe, which no Pope could fully disregard, buttressed probabilism's resilience in the face of mounting pressure.

Such political issues had a strong influence on the debate on probable opinions in the seventeenth century. They did not alter the balance of arguments for and against probabilism, but they shifted the power balance among both sides, which was crucial for any intellectual debate in a time when powerful agents could quench debates. We have seen how this played a role for the antagonism of probabilism and Jansenism, the latter being a thorn in the side of Richelieu's reason of state. Another example is the acrimonious internal quarrel among the Jesuits in the 1690s (see below), in which each side relied on the backing of kings. The political repercussions of the debate on probabilism extended beyond Europe. The Catholic mission in China depended on probabilism, which justified compromises the missionaries had to make with regard to Chinese traditions in order to placate the Chinese Emperor. These compromises, so-called Chinese rites, were attacked as idolatry by Catholic hardliners.⁵⁰ It is conspicuous that attacks on Chinese rites could be warded off as long as probabilism was dominant at the Roman curia. They only succeeded after the defenders of probabilism were embroiled in the vicious infighting that weakened the Jesuit Order in the 1690s. The consequences were momentous. The Chinese emperor refused to abide by the Catholic dictate, expelled his Jesuit advisors, and largely closed China for centuries to the Western science they had taught. This shows that the scholastic debate on probable opinions in the seventeenth century was anything but a merely academic affair. Its political impact documents how the struggle for and against a broader pluralism of opinions contributed to shaping history.

⁴⁹The significant political implications of the debate on probabilism are discussed above all in Gay (2012), but see also Quantin (2002); Fleming (2006) on Caramuel's imperially backed peace initiative in the Thirty Years War; Reinhardt (2016) on the role of probabilism in the work of royal confessors; Schwartz (2019) on many aspects of early modern scholastic political morality.

⁵⁰For the debate on Chinese rites, see Jami (2012); Minamiki (1985); Mungello (1994); Pascal (1982), letter 5.

3.1 *Anti-probabilism: Key claims*

As outlined, probabilism was attacked by a wide variety of opponents in the second half of the seventeenth century, some of who were at each other's throats in many other respects. Catholic and Protestant hardliners could share an antipathy towards probabilism, as could Jansenists and their opponents, Dominicans and Jesuits, orthodox Aristotelians and the scientific avant-garde, or enlightened *litterati* and inquisitors. There is thus not much common ground from which attacks on probabilism could be launched. Each group of opponents had their own reasons to oppose probabilism. The majority, of course, thought that probabilist morality was too permissive, but would have quarreled about what this meant. In epistemological matters, there is more consensus among opponents, as we shall see shortly, but in general, the opponents of probabilism held too diverse views to be addressed other than with an umbrella term like 'anti-probabilism', a term that was already being used in the early modern debate on probabilism.⁵¹

Let us look a bit more closely at what probabilism was criticized for, in particular in the first decades of the anti-probabilist campaign. Most larger anti-probabilist treatises opposed the entire front of probabilism's claims. The broad spectrum of criticism is often recognizable from the structure of the respective works. Giulio Mercori, for instance, addressed the concept of probability in a first part, discussing whether moral judgment could at all legitimately be guided by considerations of probability.⁵² In a second part, he scrutinized whether it was legitimate to follow a less probable opinion over a more probable one. Finally, in a third part, he dealt with practical moral decisions and delivered anti-probabilist solutions for cases of conscience. Prospero Fagnani chose a similar approach, starting with conceptual groundwork on probability and opinions, and then proceeding to the question whether probable reasoning could guide moral decisions.⁵³ In a further cluster of questions, Fagnani dealt with the choice between equally probable opinions, the general validity of probabilism, and finally, a particular problem, the choice of an opinion that was only supported by a single

⁵¹The title of Gisbert (1703) is *Antiprobabilismus*. Moreover, see the use of the term in Burgio (1998: 179) and Deman (1936: 527).

⁵²Mercori (1658).

⁵³Fagnani (1765).

scholar's authority. Some anti-probabilist writings, like Fagnani's, included a discussion on the origins and historical pedigree of probabilism, debunking claims that it had deep roots in Christian and scholastic thought. It should be noted that most anti-probabilists accepted the practical necessity of using probable reasoning in moral matters, they only inveighed against the use of opinions that were at the same time less probable and less safe than alternatives. Probable reasoning was generally regarded as being indispensable for practical agency by nearly all moral theologians. In comparison to their opponents, anti-probabilists demanded a wider, albeit not sweeping, role of risk aversion in moral conduct. The old rule that when in doubt (that is, an equal balance of reasons) the safer side should be preferred was revived again by anti-probabilists, who also severely limited the possibility of claiming inculpable ignorance of divine moral precepts.⁵⁴ Such claims were not categorically ruled out, but restricted to very few cases in contrast to their prolific use in probabilism.

For the rest, anti-probabilists usually tried to debunk each and every fundamental claim and principle of probabilism. Going through all of these (alleged) point-by-point refutations would be a tedious affair. The anti-probabilist Antonio Merenda discussed and rejected sixteen familiar reasons for adhering to probabilism, Agostino de Angelis listed seventeen.⁵⁵ We will only broach some of those reasons here, which are mainly related to the pillars of probabilism as outlined in Chapter 2, or are otherwise relevant for the present investigation:

- Probabilist notions of probability were rejected and replaced by more epistemologically demanding notions. For instance, reasonable assertability of a proposition was often assumed by anti-probabilists to be a prerequisite for its probability.
- The validity of probabilism's fundamental principles was denied or reduced to a scope that rendered the application of probabilism practically impossible or moot. For instance, moral satisficing was rejected because God bade all agents to strive for the best and for truth as much as they could.

⁵⁴The limits of invincible ignorance were discussed in depth in the late seventeenth-century debate on probabilism. This issue deserves treatment in its own right. Some initial information can be found in Colombo (2006: pp. 136).

⁵⁵De Angelis (1667), lectio 3; Merenda (1655), praefatio, n. 48.

- With respect to the Uncertain Law Principle, a prerogative of freedom was denied. The moral law was considered binding in cases of equally balanced doubt about its validity. True freedom, in other words, was to be found in God's law (a view that Kant later secularized). Some anti-probabilists rejected the assumption that inculpable ignorance of moral laws was possible.
- The Possessor Principle was restricted to legal disputes over the allocation of goods. For anti-probabilists, it did not apply in all moral matters or generally in the court of conscience.
- The possibility of doxastic choice of less or equally probable propositions, which many probabilists claimed after the 1640s, was rejected by anti-probabilists.
- The inflationary ascription of authority that resulted from the more extreme probabilist notions of external probability was tightened again. Specifically, anti-probabilists opposed the claim that *prima facie* and under normal circumstances, the judgment of a single ordinary casuist sufficed to render an opinion probable.
- Sometimes, the positions of moderate probabilists were re-interpreted to demonstrate that they actually subscribed to anti-probabilist assumptions without recognizing it.
- Alternatives to probabilist solutions of cases of conscience were offered.

While many anti-probabilists attacked their opponents on all mentioned fronts, the tone of the attacks varied widely. Mercori's restrained, matter-of-fact argumentation was considered decent even by probabilists. Others, such as Blaise Pascal and John Sinnigh, preferred deft invective. Given the amount of venom in the debate, it is surprising that only a few authors, as outlined above, were personally attacked by almost all anti-probabilists.

Most important for our purposes is the core of anti-probabilist epistemological claims: the primacy of greater probability. Hence, if two opinions had unequal support by truth-tracking reasons, only the more probable ought to be endorsed as a premise of action and could be held as true. This is the heart piece of the doctrine of *probabiliorism*, as it was called since the late seventeenth century (from Latin *probabilior*, ‘more probable’). *Probabiliorism* was in no way a novel doctrine. A permission to adopt the most probable from a set of probable propositions had already existed in the Middle Ages. It was a permission and not a demand because an agent could also remain epistemically indifferent between probable opinions and prefer to follow the safest of them, that is, the proposition with the lowest potential of sin (see Chapter 1). The revival of greater probability in Catholic moral theology was thus largely a return to an older tradition, which was considered sound and better than the novel doctrine of probabilism. Since most *probabiliorists* allowed for the choice of the safer side, *probabiliorism* was, for all practical purposes, identical to medieval *tutorism*.

There is a difference, however, with respect to justification. Baroque anti-probabilists engaged in much deeper reflections on the primacy of greater probability than their medieval predecessors because they had to refute the claims and arguments of probabilists. They did so, among other things, with the relatively new epistemological claim that the probability of a proposition is destroyed by the greater probability of a counter-proposition (i.e. a proposition that is logically incompatible with it). Hence, the traditional assumption of both-sided probability, which had been accepted since the Middle Ages, was being challenged. This, of course, required a change in the understanding of probability. Towards the middle of the seventeenth century, definitions of ‘probable opinion’ increasingly included the assumption of rational assertability (see Chapter 8). That is, an opinion was called probable if and only if it was not certainly true but sufficiently supported by truth-tracking reasons to be held true by reasonable persons. This understanding of probability was more restrictive than definitions that only required some good reasons or support by authorities, because the latter did not explicitly detail that the reasons or authorities in question should suffice to produce assent by reasonable persons. It was precisely the (allegedly) excessive scope of these earlier definitions that motivated more restrictive definitions of probability. Moreover, because anti-probabilists assumed that reasonable persons could only assent to the most probable from a set of propositions, the new definition

of probability ensured that only one proposition from the set was probable at all.

It is worth noting that the primacy of greater probability was highlighted by the representatives of otherwise very different intellectual currents in the second half of the seventeenth century. This not only includes Catholic anti-probabilists, but also most of the anti-scholastic philosophical avant-garde, and generally Protestant philosophers and theologians. The existence of such an epistemological grand coalition seems to indicate that the probabilist claims in question were seriously overstated. But we should nevertheless judge probabilism based on arguments, not on the power of the opposition. As for the primacy of greater probability in Protestant thought, it may initially simply have remained in use since the Middle Ages. Probabilism had never taken root in Protestant theology, despite the rise of a Protestant casuistry with recognizable similarities with its Catholic antagonist. In the second half of the seventeenth century, however, even the Catholic trend to investigate the foundations of probability had a counterpart in Protestant England. Jeremy Taylor discussed issues of probability in his *Ductor dubitantium* (1660), but the most important contribution to this debate came from John Locke. Locke's *Essay Concerning Human Understanding* (in particular Book IV) repeatedly postulates the primacy of greater probability. However, this was not the first, still splendidly isolated approach to probabilistic epistemology or to social epistemology in general, but a rather late, albeit supremely important, contribution to a debate that had already been sweeping Europe for decades at the time Locke's *Essay* appeared in print.⁵⁶

The big difference between Catholic anti-probabilism and Protestant social epistemology, including Locke's, was, however, that only the former explicitly tried to refute the arguments of advanced probabilism, which relied on sophisticated defenses of probabilism's epistemological and doxastic claims. Locke offered his own justifications for the primacy of greater probability, but nowhere in his writings does the full range of the arguments become apparent, which he would have to rebut had he taken his Catholic opponents seriously.

⁵⁶ I assume here that Locke was aware of the debate and intended to contribute (or end it) with his *Essay*. This claim is disputable because there is only circumstantial evidence for it. One piece of evidence is James Tyrrell's report about a meeting at which the idea of the *Essay* was conceived. The discussion at the meeting was "about the principles of morality and reveal'd religion" (Rogers 1997: 22), that is, the context in which much of Catholic epistemology evolved after 1640. On the Protestant background of Locke's thinking about probability, see Shapiro (1983).

3.2 Probabilists respond: 1656–1678

Probabilists reacted to the epistemological and moral criticism of their opponents by refining and strengthening their approaches. Juan Caramuel's early start in this respect has already been mentioned. He expanded his still inchoate innovations of the early 1640s in *Theologia moralis fundamentalis* (*TMF*, 1652), a book that had to be emended in subsequent editions to avoid prohibition, but which turned Caramuel into a high profile probabilist. Already the title of the *TMF* exposes it as foundational endeavor concerned with principled claims of moral theology, ethics, and epistemology, and certainly not only with casuistical questions.⁵⁷ As a fundamental moral theology, it aspires to describe the foundations on which moral theology as a whole ought to operate, and the respective principles were at least as much philosophical as theological: probability, the Possessor Principle, the Uncertain Law Principle, and various epistemological assumptions. Caramuel largely based moral theology on the adequate use of opinions – and his colleagues concurred. Even anti-probabilists, such as Mercori, believed that the correct use of opinions grounded moral theology, and thus both sides in the probabilism debate declared their works to be foundations of moral theology. Consequently, we find a proliferation of largely philosophical discussions at the roots of Catholic moral theology from the middle of the seventeenth century onwards.

Caramuel continued to make significant contributions to the probabilism debate after *TMF*. His last work in this respect was *Dialexis de non-certitudine* (1675). In a sequence of books between these cornerstones, Caramuel developed a peculiar (not to say idiosyncratic) and highly provocative form of probabilism – the only one that has so far attracted the interest of recent scholars. This invokes the danger of considering Caramuel as *the* representative of probabilism in the second half of the seventeenth century, which is certainly an overstatement. He may be the most flamboyant Baroque intellectual among the great probabilists of this period, but at least one other form of probabilism emerged in the 1660s, which was no less innovative and philosophically interesting. The present inquiry will

⁵⁷On Caramuel and foundational moral theology in the seventeenth century, see Niemann (1995).

repeatedly return to Caramuel, but on the whole focus on this other approach, which has the advantage of wide acceptance at the time, whereas Caramuel's probabilism found only few followers and encountered a vast number of opponents.

The other approach was developed by Jesuits (remember, Caramuel was a Cistercian), with the Collegio Romano, the old incubator of probabilist thought, being the epicenter. Once the campaign against probabilism had begun in earnest, more than a few Jesuits worried that the image of their order might be damaged beyond repair by accusations of lax morality (as in fact, it was). The order's long love affair with probabilism began to appear increasingly risky. Some moral theologians, such as Pietro Sforza Pallavicino, a cardinal, master theologian, and one of the great public intellectuals of the Jesuit Order, converted to anti-probabilism, but in a concealed manner. He could thus influence the Jesuits' handling of the probabilism debate without publicly admitting defeat. However, the Jesuit leadership and a great number of members stood by probabilism, and strove to ward off mounting criticism by calling for a modified form of probabilism that could not easily be misused as a vehicle for laxism. The first Jesuit to deliver a promising layout for such a doctrine was the French mathematician and moral theologian, Honoré Fabri (1608–1688). As a mathematician, Fabri contributed to the development of the infinitesimal calculus, as was explicitly recognized by no lesser an authority than Leibniz, its co-inventor.⁵⁸ As a probabilist, Fabri conceived a notion of probability that depended on the reasonable assertability of a proposition. Hence, not all strong reasons or weighty authority sufficed to engender probability, but only reasons or authority that could move a reasonable person to assent. This redefinition of scholastic probability, which was also, as indicated, widely adopted by anti-probabilists, went some way towards excluding soft standards of eligibility. Above all, moderate probabilists explicitly refused to legitimize the use of opinions that were only weakly (*tenuiter*) or probably (*probabiliter*) probable. Such claims therefore became a hallmark of laxism. Fabri, who was working in Rome at

⁵⁸For Fabri's contribution to the development of infinitesimal calculus, see Elazar (2011: xvii, 110); Fellmann (1992) and the biopics on Fabri in *scholasticon* and the *Mac Tutor History of Mathematics Archive* of St. Andrews University, <http://www-history.mcs.st-andrews.ac.uk/Biographies/Fabri.html>. Alexander (2014) does not mention Fabri, while ascribing a policy of preventing the emergence of infinitesimal calculus to the Jesuit Order. On Jesuit mathematical endeavors in general, see Romano (1999); Schuppener (2002). Fabri's physics is discussed in Elazar (2011). To the best of my knowledge, no in-depth study of his probabilism exists so far.

the time, propagated his moderate probabilism in *Pithanophilus* (1659), the title of the work literally meaning ‘Friend of probability’. Unfortunately, as indicated above, his 1670 apology of the Jesuit Order turned him into a controversial figure in Rome, and his notoriety may have contributed to the fact that his probabilism never became the order’s main line of defense.⁵⁹ However, Fabri’s work had also some loose ends which were tied up by other authors. Particularly important in this respect were the works of Martín de Esparza (1606–1689) and Anthony Terill (1621–1676).⁶⁰ Both Jesuit authors had close connections to the Collegio Romano or its Roman milieu. Esparza taught there, and the Englishman Terill received his higher education in Rome. Esparza’s *Appendix* (1669) on the use of probable opinions offered a sophisticated answer to a key problem of assent-based definitions of probability, such as those favored by Fabri. The problem was, plainly, that medieval scholastics had predominantly assumed that assent could only be given to the more probable of two propositions. On this basis, a probabilism of assent to less probable propositions instead of merely ‘following’ an opinion in practice, was inconceivable. Esparza’s response was to develop a sophisticated doxastic voluntarism that explained how assent could be given, and reasonably so, to a less probable proposition. The answer entailed a distinction between commensurable and incommensurable reasons for truth, and will be discussed in detail in Chapter 10. Terill used a similar approach to doxastic voluntarism in *Fundamentum totius theologiae moralis* (1669), but his doxastic psychology, and thus his account of how assent to the lesser probability became possible, was even more fine-grained than Esparza’s. Moreover, Terill accepted some uses of external probability that were foreclosed by Esparza, but which most probabilists considered indispensable. In consequence, anti-probabilists liked Esparza more than Terill, who in the eighteenth century became embroiled in accusations of laxism. However, Terill explicitly and in strong words distanced himself from all loose applications and versions of probabilism. Terill remained highly esteemed in the Jesuit Order, even by such staunch opponents of probabilism like Tirso Gonzalez (see below), who apparently accepted Terill’s anti-laxism as heartfelt. Terill’s version of moderate probabilism became a rallying point for probabilists far into the eighteenth century, and his importance was also time

⁵⁹Gradius (1678) is a book-length critique of Fabri’s probabilism.

⁶⁰Not much is known about the lives of Esparza and Terill (see *scholasticon*), and so far, there exist no studies of their probabilism or moral theology. Some information about Terill, probably the most important theorist of probabilism ever, is brought together in Chapter 10, section 3.

and again acknowledged by anti-probabilists. The Catholic philosopher, Antonio Rosmini, even ranked Terill as equal to Bartolomé de Medina, the inventor of probabilism, with respect to importance for the ‘moral sciences’.⁶¹ We will therefore give Terill’s approach pride of place in Chapter 10.

The availability of advanced, anti-laxist versions of probabilism, which in the eyes of their defenders could ward off the moral, and above all, epistemological objections of anti-probabilists, enabled the leadership of the Jesuit Order to stand by probabilism. This appears most clear with respect to the Superior General Gian Paolo Oliva (1600–1681, General since 1661), who refused a permission to publish the anti-probabilist work of Miguel de Elizalde, taking the side of Terill and probabilism.⁶² Nevertheless, Elizalde succeeded in publishing his *De recta doctrina morum* (1670), thus opening a new round in the contest between probabilists and anti-probabilists. Elizalde’s book contained new objections and approaches against probabilism, such as, for instance, the frequency view of probability. Terill responded to the new challenge with *Regula morum* (1678, posthumously published), which was wholly preoccupied with refuting Elizalde’s approach, but largely restates Terill’s earlier positions.

Caramuel’s *Dialexis* (1675) and Terill’s *Regula morum* (1678) arguably marked the end point of an important stage of probabilism’s theoretical development. Both works focused above all on the *theoretical* objections that had been raised against probabilism since Bianchi’s kickoff in the 1640s. These objections on a deep level were ethical, against moral satisficing and against favoring freedom of choice over moral obligation, and epistemological, concerning restrictions to reasonable assent. The quarrels about casuistical judgments, which dominated the public debate on probabilism, are hardly relevant for appreciating the approaches of Caramuel or Terill (or Fabri, or Esparza) on a philosophical level. As indicated, Terill’s approach was the most important blueprint for an anti-laxist probabilism, until a new form of probabilism (called equi-probabilism, see below) became

⁶¹Rosmini (2011: 262), “It is not surprising that such progress [the reflective principles of probabilism] produced a kind of moral-scientific crisis in mankind, so that the names MEDINA and TIRILLO ought to stand in any philosophical history of moral sciences as marking the beginning of a new scientific epoch”. In Italy, Terill (itself a cover name for Bonville, the real family name) was often called Tirillo.

⁶²Oliva’s positive attitude towards probabilism and Terill can be gleaned from his sending Terill’s *Regula morum* to Tirso Gonzalez to detach him from anti-probabilism, see ARSI ANGL. 2 II 1666–1698; Gonzalez (1691), praefatio, n. 28.

fashionable in the middle of the eighteenth century.⁶³ The question of anti-laxism was, of course, crucial for the self-understanding and the public image of the Jesuits, as documented by another important probabilist work, Juan Cardenas' *Crisis theologica* (1670). Cardenas does not add much to the theoretical development of probabilism, but concentrates on refuting Caramuel, thus distancing the Jesuits from a problematic ally. (Caramuel had openly sought the friendship of important Jesuits, most of which, however, always seem to have been wary of him).

3.3 Probabilism 1656–1678. Sympathy for modern science and a focus on epistemology

It seems conspicuous that two or even three out of the handful of probabilists, who reformed the theoretical foundations of their doctrine between 1650 and 1676, were mathematicians. Caramuel was the only probabilist at the research front of mathematical probability, but Fabri was very notable with respect to the development of infinitesimal calculus. The little biographical information we have on Terill claims that he was a professor of mathematics in Parma and Liège. I checked this information in the Jesuit archives in Rome and found no confirmation. At the Jesuit college in Liège, a professorship for mathematics apparently did not exist at the time. However, Terill was a professor of physics (*physica*) in Florence and Parma, and his *Problema mathematico-philosophicum* (1660) deals with problems of statics, mechanics, and engineering. There is not much mathematics in the book, but Terill explicitly acknowledged his indebtedness to Galilei, whose work on astronomy, but not on engineering, was prohibited. On the whole, this background is a further sign that theoretical reflections on probabilism left the narrower orbit of casuistry far behind. Caramuel and Terill used statistical models, in particular lottery and urn models, in their probable reasoning. It therefore needs to be investigated how close scholastic and mathematical approaches to probability moved towards each other in the presently discussed period (see Chapter 12).

⁶³For the centrality of Terill in the subsequent debate on probabilism, see Gonzalez (1694), diss. 1, n. 24; Camargo (1702), pars I, lib. 1, contr. 5, a. 7, n. 70; frequent reference to Terill in Lacroix (1707) and Casnedi (1711) – especially tract. 2, disp. 4, prooemium; Concina (1751), lib. 3, diss. 2, cap. 3; Rosmini (2011: 262)

Terill's Galileian leanings also document that some leading probabilists sympathized with modern science. This attitude was most pronounced in Caramuel, who was a member of the pro-Galileian *Accademia degli Investiganti*. Moreover, he appreciated experimental science, corresponded with Gassendi, and seems to have sought a way around Galilei's condemnation. The condemnation prohibited the defense of Copernicanism as probable.⁶⁴ But this surely, according to Caramuel, did not imply that it was improbable. (It could also be probably probable). Moreover, it was unclear, after all, whether the Pope could judge the probability of propositions with the infallibility he had in matters of truth or falsehood. The discussion of the Pope's rule over probability continued into the eighteenth century and was, to the best of my knowledge, never *ex cathedra* resolved by a Pope, maybe because most theologians who analyzed the issue acknowledged infallibility with respect to probability judgments as much as for direct truth claims.⁶⁵

Honoré Fabri, the third great probabilist mentioned here, also showed a pronounced interest in the new science of the seventeenth century. Fabri has long been considered a diehard conservative Aristotelian by historians of science, not least because of his unsuccessful opposition to Huygens in the interpretations of Saturn's rings. However, recent studies have shown that Fabri's Aristotelianism was of a modernized sort. Despite—and perhaps justly—being critical of Cartesian science, Fabri was on the right path towards Newton with his theory of momentum. That is, Fabri's understanding of physical momentum was neither Aristotelian nor Galileian or Cartesian, but informed by experimental science and close to the correct modern account.⁶⁶

Finally, Pietro Sforza Pallavicino also deserves mention in the present context. He had been so closely associated with the Roman circle of Galilei's friends that he had to leave Rome to escape the wrath of Urban VIII in the wake of Galilei's trial. Pallavicino returned as a Jesuit and finally became one of the leading scholars of the order. He never broke with Aristotelianism, except in some areas where he considered Aristotle as outdated. This was precisely the case in matters of natural science.⁶⁷ Pallavicino was a probabilist

⁶⁴See the analysis in Schuessler (2004).

⁶⁵See Colombo (2006), Chap. 7.

⁶⁶See Elazar (2011). On Jesuit teachings on natural science generally, see Baroncini (1981); Feingold (2003a); Feingold (2003b); Hellyer (2005); Waddell (2015).

⁶⁷See Baffetti (1997: 91) who quotes from letters of Sforza Pallavicino: “la diligenza degli astronomici esperimenti e ‘l vigore degli aristotelici discorsi: Là dove i più de’ moderni, o con la pigrizia del senso si fanno ciechi schiavi dell’ antichità peripatetica, o con la pigrizia dell’

until Alexander VII became Pope, if not thereafter. It is therefore reasonable to include him among the followers of this doctrine, who sympathized with the new natural science. These sympathies indicate that the cream of the probabilists around the middle of the seventeenth century was also among the vanguard of modern science in the Jesuit Order. It is hard to believe that this is mere coincidence but at the same time there are no conceptual grounds linking a pro-attitude to new science to the probabilism of the moral theologians. None of the prominent scholastic probabilists of the middle decades of the seventeenth century except Juan Caramuel y Lobkowitz seem to have experimented with the new probability calculus. However, the avowed modernity of many probabilists (see Chapter 7) may already have sufficed to predispose them positively towards new scientific endeavors.

Another issue that deserves comment is the rise of epistemological considerations in the debate on probable opinions. The temporal boundaries of this process coincide with those of key epistemological investigations in early modern philosophy, such as Descartes's and others avant-garde philosophers'. With the *cogito* argument and the methodical dependence on clear and distinct ideas, epistemology became the foundational philosophical discipline for Descartes, even more so than metaphysics (or so the standard narrative of the rise of modern philosophy goes). Recognition of a simultaneous flourishing of epistemological investigations in scholastic moral theology, which led to the publication of the epistemological *fundamenta* of moral theology, does not undermine the received view of Descartes' agenda. However, it shows how broad the basis for an intensification of epistemological considerations was in the intellectual climate of the mid-seventeenth century. The investigation and clarification of epistemological foundations was not only a powerful objective in anti-scholastic philosophy, but in Catholic moral theology, too.

The approaches of Descartes and of Catholic moral theologians differed widely, of course. While Descartes claimed to offer indubitable truths as a bedrock for science, dealing with probability only in passing, Catholic theologians refined an epistemology of probability and uncertainty. This also explains why early modern scholastics were usually neither impressed by Cartesian uses of doubt nor by the recovery of ancient skepticism. From the

intelletto prendono le relazioni del senso come fine, e non come principio e materia del filosofare". And: "Aristotelaeus non est, qui serviliter aristotelaeus est". Sforza Pallavicino calls himself an Aristotelian, except in mathematics [that is, also physics] and in medicine, see Baffetti (1997: 97). In *matematica*, Sforza Pallavicino calls himself *galileista*.

perspective of increasingly sophisticated scholastic theories of probability and its uses, the challenges of skepticism appeared pointless and overblown. For scholastics, uncertainty was no abyss but could be managed and measured, at least in degrees. Skeptics were wrong to assume that uncertainty could not be systematically managed with a doctrine of probability. However, the softening of criteria for probability ascriptions by some daring probabilists offered anti-probabilists a chance to accuse them of coming close to skepticism, referring mostly to Academic skepticism but occasionally also to Pyrrhonism.⁶⁸

3.4 1670–1700: ‘Civil war’ among the Jesuits

By 1670, the debate between anti-probabilists and the new forces of probabilism was in full swing. The following decades witnessed the spread of this controversy on an extraordinary scale, not least because of clashes within the Jesuit Order. Elizalde’s book against probabilism found a significant number of young admirers among the Jesuits, mainly in Spain. One of these aficionados was Tirso Gonzalez (1624–1705), one of the most important missionaries and preachers in Spain at the time. Gonzalez’s attempts to go public with his attacks against probabilism were thwarted in the 1670s by the leaders of the Jesuit Order, but in contrast to Elizalde, Gonzalez obeyed – for the time being.⁶⁹ This state of affairs began to change in 1687, when the rigorist Pope Innocent XI managed to get Gonzalez elected as the Superior General of the Jesuit Order, with the express wish that he fight probabilism. Gonzalez gladly complied, but faced enormous resistance in his order, as documented by the publishing history of Gonzalez’s major work against probabilism. Gonzalez took the audacious step to bypass the Jesuit system of censorship and publish his *De recto usu opinionum probabilium*, the work whose publication had been prohibited in the 1670s, without approbation of the order in the small German town of Dillingen. Dillingen had a decent Jesuit press, but was also remote enough not to raise immediate suspicion in the

⁶⁸For probabilism as skepticism including Pyrrhonism, see Concina (1751), lib. 3, diss. 1, cap. 1, n. 5: “Proximus itaque, immo idem fere est probabilismus Scepticorum & Pyrrhonorum, ac probabilismus casuistarum”. See also below Chap. 9.3.

⁶⁹Gonzalez’s path towards anti-probabilism is best described in Gay (2012), but see also Knebel (2009) and below Chapter 8.

Jesuit hierarchy. The printing of the book duly began in 1691. By November of that year, Gonzalez's assistants had learned about what was happening in Dillingen. The assistants of the Superior General were the second tier of the Jesuit hierarchy, representing the order's mighty provinces. Given the order's global reach and aspirations, the provinces were to a considerable extent self-reliant centers of Jesuit influence. It was the provinces that managed the direct contact with local princes (such as Louis XIV, the King of Spain, or the German Emperor), whose interests they usually also advocated to some extent. For this reason, the provinces acted with considerable flexibility, which often created tensions and conflict with the policies of other provinces or the Roman center. Probabilism had helped retain some overarching unity of approach in this diversity. Yet confronted with Gonzalez's shocking decision to publish his book without observing due Jesuit process, the assistants for once were of one mind. They demanded the suppression of the book and threatened to turn to the Pope if Gonzalez did not comply. In their eyes, the commander of the Jesuits was overturning their established order. Gonzalez, however, did not budge.

Hence, the case had to be decided in Rome, where Innocent XII had become Pope in the summer of 1691. In the slowly grinding mills of the Vatican, a decision in the case was only beginning to take shape in 1693 (obviously, to calm things), when it was decided that the Jesuit provinces should take a vote on convening a general congregation of the order at which the issue of Gonzalez's publication ought to be resolved. The decision in question thus cleverly combined two issues, namely Gonzalez's book and an extraordinary general congregation. High politics, to a large extent, determined the outcome. The provinces of France (instigated by Louis XIV) and Italy continued to oppose Gonzalez and called for a congregation, but the Habsburg courts in Vienna and Madrid brought their power to bear on the Jesuits of the Austrian and Spanish provinces to vote in favor of Gonzalez. Jean-Pascal Gay, who has written a detailed analysis of these events, resumes that the votes of the Jesuit provinces were roughly divided along the lines of the Nine Years War in Europe.⁷⁰ In the curia, powerful cardinals lobbied for Gonzalez, with the Inquisition for once pushing for a license to publish a book instead of prohibiting it. Innocent XII tried to stand above the quarrel and finally consented to the publication in 1693, but only if the tone of the book was mitigated to avoid unnecessary negative feelings.

⁷⁰Gay (2012: 189).

It was a great victory for Gonzalez when his treatise against probabilism appeared in a considerably extended version as *Fundamentum theologiae moralis* in 1694. According to recent studies, this was also a significant intellectual event, because Gonzalez promoted a novel ‘subjectivist’ version of anti-probabilism. We will discuss this claim in Chapter 8. In any case, the battle against probabilism in the Jesuit Order did not end with the publication of Gonzalez’s book. Probabilists rushed to write and publish responses to Gonzalez, and until the end and beyond Gonzalez’s Generalate in 1705, the debate on probabilism remained a highly divisive issue in the Jesuit Order. A significant group of anti-probabilists rallied around Gonzalez, but the probabilists also received support from several important power-brokers and could not decisively be defeated.⁷¹

Jean-Pascal Gay, based on contemporary comments, has aptly called this episode of Jesuit history the ‘Jesuit Civil Wars’.⁷² Their impact on probabilism and anti-probabilism, and on the Jesuit Order in general, and perhaps even on the intellectual climate in Europe, should not be underestimated. For the opponents of probabilism, the anti-probabilist campaign of the Superior General of an order that had become nearly synonymous with probabilism was like manna from heaven. Nevertheless, it did not bring a clear victory. The probabilism-hater Daniele Concina (1687–1756) assumed that the downfall of probabilism in the eighteenth century began in 1690, with Gonzalez’s campaign. But probabilism’s defenses stood firm in many places, and Concina overstated the successes of anti-probabilism. As much as Gonzalez’s campaign spurred antagonism against probabilism, the assumption of a subsequent general decline is exaggerated. The fallout of the decade-long internal rifts for the Jesuit Order is another matter. The Jesuit Civil Wars document that the widespread image of the Jesuits as a spiritual Marine Corps blindly willing to obey the orders of the Pope or their general is quite wrong. Closer inspection reveals that this cliché had always been at some distance from the truth.⁷³ More than a few Jesuits heroically followed orders and accepted physical martyrdom for their cause,

⁷¹One of the most important supporters of Gonzalez was Gilles Estrix SJ (1624–1694), provincial of Belgium and convert from probabilism, see Estrix (1695), Estrix (1703). On the probabilist side, the influence of the prominent preacher Paolo Segneri (1624–1694) had great weight, see Segneri (1730).

⁷²Gay (2012).

⁷³For insubordination among the Jesuits before the ‘civil wars’ of the 1690s, see Catto (2009); Mostaccio (2014).

but intellectual subordination was not the forte of Jesuit academic divas: they were more willing to sacrifice their lives than their intellects.

In any case, the Jesuit Order's relative loss of ground in the eighteenth century, not only in many European countries but also in the Catholic Church, may to some extent have been fostered by the Jesuit Civil Wars. The Jesuit's internal troubles diminished their power and public standing, and facilitated the rise of new currents of thought that became the Enlightenment. Whether a victory of probabilism would have been conducive or deleterious to the Enlightenment is difficult to tell. Respective studies are lacking, but it should be recognized that the Enlightenment proceeded most pronouncedly where probabilism had been virtually crushed by 1700: in France. However, the relationship between probabilism, anti-probabilism, and the Enlightenment is still largely *terra incognita* (except for the hostile attitude of most Enlightenment thinkers towards probabilism) and sorely in need to be studied.

In fact, France was the only major Catholic country in which probabilism was decisively rolled back in the second half of the seventeenth century. Jean-Pascal Gay has argued that this retreat occurred slowly and not immediately after Pascal's prominent attack of 1656.⁷⁴ Yet the roll-back of probabilism seems to have progressed quite far when the assembly of the French clergy decided to condemn probabilism in 1700 (Deman's starting date of probabilism's final demise).⁷⁵ Powerful clerics, such as bishop Bossuet, abhorred probabilism. Louis XIV's hostility towards Tirso Gonzalez should not be misunderstood as sympathy for probabilism. Louis opposed the Spaniard in Gonzalez, and the opponent of Gallicanism, not the anti-probabilist. In fact, Louis' increasingly conservative religious and moral outlook in the 1680s facilitated the campaign against probabilism in France. It is therefore important to note that no comparable demise ensued in other major Catholic countries in the last decades of the seventeenth century. The situation in Italy remained in limbo, with some Jesuit houses supporting and

⁷⁴See the detailed analysis in Gay (2009); Gay (2011). The Lyonais Jesuits Theophile Raynaud (1563–1663) and Georges de Rhodes (1597–1661), who in my view were the most important French probabilists except Honoré Fabri (1608–1688, but Fabri moved to Rome in 1646), died soon after 1656. For their probabilism, see Georges de Rhodes (1661); Raynaud (1629). The notable probabilist Louis Abelly (1604–1691) lived much longer but was no longer active after a stroke in 1665. However, his *Medulla theologica* was reprinted many times in the second half of the seventeenth century (e.g. Abelly 1677).

⁷⁵Notable (scholastic) French anti-probabilist works before 1700 include Baron (1667); Contenson (1681); Crespin (1665); Gonet (1671); Malatra (1698); Noel (1698).

others fighting probabilism, while others were internally split. In Rome, adherents and opponents of probabilism met and mingled in the curia. Austria and Bavaria remained strongholds of probabilism.⁷⁶ Note that with respect to moral theology, these regions were not intellectually remote corners at the time. Ingolstadt, Dillingen, and Salzburg were important publishing places for moral theology. Again another picture is offered by the developments in Spain. Spain ranged somewhere between France and Southern Germany with respect to its allegiance to probabilism. Tirso Gonzalez was a Spaniard, and anti-probabilism was on the rise in the Iberian Peninsula in the second half of the seventeenth century. Francisco Palanco's *Tractatus de conscientia humana* (1694), Thomas Muniessa's *Stimulus conscientiae* (1699) and Ignacio de Camargo's *Regula Honestatis Moralis* (1702) are three of the most important documents in this respect. At the same time, probabilism remained strong in the Iberian Peninsula, as a significant number of probabilist publications document.⁷⁷ However, the outbreak of the Spanish War of Succession in 1701 changed this precarious balance of power.

4. 1700–1773: More debate, new developments, and the geography of persistence

Around 1700, several events inaugurated a new era for probabilism. In the 1690s, Tirso Gonzalez's campaign against this doctrine escalated the controversy on probable opinions. In 1700, the assembly of the French clergy, ushered on by Bishop Jacques Bénigne Bossuet, took a stance against probabilism and nearly wiped out the doctrine in France.⁷⁸ That same year, Philip of Anjou became the first Bourbon king of Spain, thereby tightening the cultural bonds between Spain and France. Although probabilism seems to

⁷⁶See the important pro-probabilist moral theologies of Babenstuber (1697); Illsung (1693); Reiffenstuel (1692); Sporer (1660).

⁷⁷E.g., Diez de Prado (1685); Franciscus a Jesu Maria (1679); Fuentes (1699); Mendo (1666); Moya (1670); Moya (1678); Peñafiel (1678); Torrecilla (1696). Ferre (1681) documents that even an important pro-probabilist Dominican work could be approved in Spain in the second half of the seventeenth century. The high-profile probabilism of Casnedi (1711) is also included in the present context, because the book was written in the 1690s, see Colombo (2006: 133-139); Gay (2012: 204).

⁷⁸Anti-probabilism thrived in eighteenth-century France with Antoine (1734); Billuart (1754); Danes (1738); Gisbert (1703); Habert (1747); Paul de Lyon (1734); Tournely (1764). More generally on Catholic theology in Enlightenment France, see McManners (1998), Northeast (1991); Van Kley (1975).

not have fared as badly in Bourbon Spain as in France, the flourishing of probabilism in Spain, which despite increased opposition had been marked until the War of the Spanish succession (1701–1714), ended after the war. Moreover, the first stirrings of Enlightenment thought, which raised its head around 1700, marked a new era which deserves to be addressed in its own right, even with respect to probabilism and anti-probabilism.

In contrast to these negative trends, the death of Tirso Gonzalez in 1705 helped pacify the acrimonious in-house battles within the Jesuit Order and contributed to probabilism's survival in the eighteenth century. It is important to recognize that probabilism was not rolled back on all fronts. In significant parts of Catholic Europe, probabilism remained a prolifically taught and endorsed doctrine among Catholic theologians in the eighteenth century. A too exclusive focus on France, where the number of supporters became a dwindling trickle after 1700, leads to an understatement of this fact in much of the modern literature on probabilism, because it veils probabilism's continued flourishing in Italy and Southern Germany. It is instructive in this respect to consult the 'Wuerzburg theology' (*Theologia wirceburgensis*, named after the town Wuerzburg), one of the very last big compendia of theology published by a group of Jesuits in Southern Germany before the abolition of their order in 1773.⁷⁹ The third volume, published in 1768, deals with moral theology and contains a long and detailed discussion of different approaches to the use of probable opinions, probabilism included. Ignaz Neubauer, the lead author of the volume on moral theology, was still a probabilist, and inveighed against attempts to portray probabilism as a near dead doctrine. In Germany, Neubauer claimed, probabilism was still the most widespread doctrine.⁸⁰ It had significant supporters in Italy. In Belgium, its supporters continued to fight the Leuven rigorists. Only in France had the enmity of the bishops managed to subdue probabilism and to instigate a shift towards moral

⁷⁹The *Theologia wirceburgensis* was the collective work of professors at the Jesuit college in Wuerzburg. It covers the entire range of scholastic theology, with a focus on issues that were considered particularly relevant at the time. In some respects, it thus represents the innovative front of Catholic theology, albeit without a break with the scholastic tradition. The various tomes were written by different specialists on the broached issues from 1749 onwards and published after 1766. I quote a later edition.

⁸⁰Neubauer (1852), cap. 4, art. 5, n. 278: "attamen per Germaniam probabilismus adhuc communiter traditur, et in Italia recentissime illum tuentur ... [followed by a list of authors]; in Belgio plerique eundem defendunt contra Lovanienses, ..., in Gallia cum exorto Jansenismo invalescere coepit et Rigorismus; nec mirum, propter quorundem Episcoporum iteratas prohibitiones, auctores Gallos etiam catholicos ad rigorem, qui salva fide sustineri potest, tandem declinasse".

rigor. This assessment shows that probabilism's situation even at that late time (1768) was not as dire as its opponents and modern commentators believe it to have been. Interestingly, Neubauer did not mention Spain—the country of origin of probabilism—in his geographical account of resilience. In the eighteenth century, under the dynasty of the Bourbons, Spanish theology seems to have become an internationally negligible matter. Yet let us substantiate these judgments in a bit more detail.

In Italy, a notable flow of publications promoting probabilist moral theology persisted until the dissolution of the Jesuit Order. Paolo Segneri's *Lettera sulla materia del probabile*, which had been written in the 1690s, were republished in 1730. The popular and saintly preacher Segneri had been one of the most effective defenders of probabilism against Gonzalez, and the republishing of his letters in Verona sparked a controversy with die-hard local anti-probabilists.⁸¹ This controversy unfolded until the 1750s and offered a stage for Daniele Concina (1687–1756), a staunchly conservative Dominican, to not only propagate his influential critical history of probabilism (*Della storia del probabilismo e del rigorismo*, 1743), but to also oppose the burgeoning of Enlightenment thought. Various Popes tried to not get embroiled in these acrimonious exchanges between probabilists and anti-probabilists, which weakened the defenses of the Catholic Church against the advance of novel ideas of the Enlightenment. A compromise was clearly desirable, and was finally offered in the 1760s by the Redemptorist, Alfonso de Liguori (1696–1787), who taught a modified form of probabilism and was later awarded the title 'teacher of the Church' (same title as Aquinas) for his achievements as a moral theologian.

In Southern Germany, and in Bavaria in particular, probabilism seems to have retained an even stronger position than in Italy – just as Neubauer claimed. There is not much controversy concerning the doctrine in the first half of the eighteenth century in Bavaria. Probabilism remained predominant in moral theology during a period that can be regarded as a time of great cultural flourishing of the German Baroque.⁸² It is difficult to avoid the impression that probabilism's responsiveness to social concerns and its readiness to justify public enjoyments (e.g. the theater, Oktoberfest-like festivities, etc.) resonated well with the population in Catholic Germany.

⁸¹See Ballerini (1732); Gravina (1755); Patuzzi (1752-54); Sanvitale (1748). For the emergence of this controversy, see Vecchi (1962: pp. 333).

⁸²See, e.g., Elbel (1740); Katzenberger (1724); Mayr (1732); Michel (1707); Schnell (1747); Schwarz (1743) as sources, and Diebolt (1926); Heitz (2003); Reinhold (1934) for an overview.

Alfonso de Sarasa, who worked in Germany, had already published a work on moral theology in the seventeenth century, conspicuously entitled *The Art of Always Being Happy* (*Ars semper gaudendi*, 1664). In contrast, Enlightenment thought was associated in these parts of Germany with (often loathed) pressures to lead a rational and economically productive life.⁸³

In Austria, probabilism also remained strong in the first half of the eighteenth century. The tide seems to have turned a bit sooner against this doctrine in Austria than in Bavaria. There are indications that the Austrian court inveighed against probabilism in the 1750s without prohibiting its use.⁸⁴ On the whole, however, the fortunes of probabilism in Austria during the eighteenth century still largely remain to be researched. My judgment of continued flourishing until the mid-century is primarily backed by an impressive publishing record of probabilist moral theology, even if we exclude Salzburg, which then was not yet part of Austria.⁸⁵ Salzburg as a center of scholastic and later Catholic enlightened theology also produced notable probabilist moral theology in the period in question, in particular in the person of the Benedictine Placidus Renz (1692-1748).⁸⁶

In Spain, on the other hand, the transition from the Habsburg to the Bourbon dynasty apparently affected probabilism's fate negatively. In 1711, Carlo Casnedi's *Crisis theologica* was published in Lisbon, the one notable and internationally acclaimed probabilist work of moral theology emanating from the Iberian Peninsula in our sub-period. Otherwise, the general decadence of intellectual culture under the Spanish Bourbons seems to have also engulfed moral theology. That is not to say that probabilism could no longer be upheld. The manuals of moral theology published after the end of the Spanish War of Succession (1714) were often anti-probabilist, but some pro-probabilist

⁸³See Hersche (2006: 431, pp. 618), Vol 1; Lehner (2011).

⁸⁴See Probst (1869: 43, 168, 406), who for Innsbruck assumes a flourishing of probabilism until 1730 and quotes a government regulation from 1765 that severely restricted the teaching of probabilism. In Austrian government circles, the tide seems to have notably turned against probabilism in the 1750s at the latest, according to Probst's account. This is, however, a tentative judgment because the history of probabilism in Habsburg Austria is still largely *terra incognita*. For anti-probabilist writings in Austria (roughly) in the first half of the eighteenth century, see, e.g., Ehrentreich (1699); Shguanin (1725); Shguanin (1729); Wigandt (1703).

⁸⁵E.g. Krisper (1729); Mickl (1747); Struggl (1744). For the situation in Bohemia, see Sousedik (2008).

⁸⁶Renz (1741). The receptivity of the Salzburg (and other German) Benedictines for Enlightenment thought has been investigated by Lehner (2011). There is, however, not much to be found about probabilism or anti-probabilism in this respect in Lehner's account.

manuals or treatises also exist.⁸⁷ It is only in comparison with the prolific and often daring Spanish probabilist treatises before the War of Succession that the depressing nature of probabilism's new situation becomes apparent (in fact, Casnedi's book was already written in the 1690s and prevented from being published by Tirso Gonzalez).⁸⁸ The fate of probabilism in Spain in the eighteenth century clearly calls for further research, but at present, it seems that the French anti-probabilist mood accompanied the Bourbons to Spain, at least in a mitigated form.

After the middle of the eighteenth century, the discursive formations and political milieus that fostered probabilism in Catholic countries finally began to give way, but even then not in a sudden cataclysm in the doctrine's last strongholds, under the impact of a resurgence of Jansenism and the successes of Enlightenment thought. The Enlightenment was uniformly, but with differing intensity, hostile to probabilism.⁸⁹ The acceptance of greater probability as a guide to truth by Enlightenment thinkers was crucial in this respect. Moreover, the Jesuits increasingly came under fire from Jansenist opponents, who because of their longstanding quarrel with Rome found it easy to champion the cause of absolutist rulers against patronization by the Pope (i.e. ultramontanism).⁹⁰ The effects of these developments unfolded slowly but inexorably in the remaining refugia of probabilism, that is, in Italy, Austria, and Bavaria. In the 1760s, the Jesuits were banned in several European countries, only to be generally disbanded as an order by Pope Clement XIV in 1773. This date—or 1789, the year of the French Revolution, with its disastrous consequences for the Catholic Church as a whole—is a suitable end date for the scholastic tradition as a whole, or, to use Carlo Giacon's terminology, for the compound of first and second scholasticism. It is reasonable to distinguish these older scholastic traditions from the Catholic neo-scholasticism of the nineteenth century, a new development which Giacon addressed as third scholasticism.⁹¹

⁸⁷See Manuel de San Bonaventura (1725), who defends 'good old-fashioned' probabilism (*antiquus probabilismus*). Gutierrez Hurtado (1718) accepts probabilism in passing, while De la Torre (1721) offers a long-winded and labyrinthine discussion of probabilism's drawbacks. On the other hand, there is no lack of anti-probabilist works in our sub-period, see Ferriz (1745); Guerrero (1733); Mas (1767); Marin (1768); Navases (1754). From this list, José Marin (1654–1725) is particularly noteworthy, because he was a tutor and confessor of King Luis I of Spain.

⁸⁸See Colombo (2006: 133-139); Gay (2012: 204).

⁸⁹See Schuessler (2003), Chap. 7; and Schuessler (2006a).

⁹⁰Van Kley (1975); Strayer (2008).

⁹¹Giacon (1944: 11).

The designation of doctrines for the choice of probable opinions as moral systems (*systema morale*) began in the presently discussed period (1700–1773).⁹² On this account, probabilism is a moral system but anti-probabilism comprises two major moral systems: probabiorism and tutorism. We have already encountered probabiorism, which usually permits a choice between a more probable and a safer opinion if the two fail to coincide. In case of equally balanced doubt, probabiorists must choose the safer side. The same requirements had characterized medieval tutorism, and it is thus unfortunate that the quite different moral system of tutorism bears a name that seems to include the former as a medieval variant. Tutorism without epithet invariably demands choosing the safest opinion in clashes of probable opinions. This demand, which arose in the late seventeenth century, is much stricter than its medieval predecessor, which only required ‘safety first’ in cases of equally balanced doubt (i.e. under flat uncertainty or equal probability).⁹³ Tutorism disregards the information contained in probability differences and would therefore today only count as reasonable in contexts in which extreme risk aversion appears adequate.⁹⁴ Actually, in the period we are discussing, tutorism was also regarded as an ultra-rigorous position of only a few religious fundamentalists. (That it was endorsed by Immanuel Kant is another, quite problematic story).⁹⁵ The trio consisting of probabilism, probabiorism, and tutorism was treated as a fixed set of moral systems in nineteenth and early twentieth century Catholic moral theology. The label ‘moral system’ helped cement the view that the underlying doctrines were only concerned with

⁹²See the positions in Ressler (1713), praefatio, which formed a spectrum of moral systems; Casnedi (1711), d. 4, n. 1 speaks of *probabilium systema*; see the title of Mickl (1747) for *moralis systema*. On moral systems, see also Deman (1936: 417, 592).

⁹³See Ressler (1713), praefatio: “Prima [sententia] est rigidissima, quae negat, fas esse in operando se conformare ulli opinioni minus tutae, ne quidem probabilissimae, sed ubique, ac semper tutiorem solummodo partem in praxi tenendam esse affirmat, ubi non habetur certitudo saltem moralis ... & qui ita sentiunt, Tutoristae communi jam in scholis vocabulo appellantur”. Note that in the seventeenth and eighteenth centuries, the medieval mainstream position on the choice of opinions was *not* labelled as tutorism. This practice is an infelicitous modern development.

⁹⁴See Luce and Raiffa (1957).

⁹⁵See Schuessler (2006a), Chap. 5. Kant (1997: 179) / AA 6: 185: “It is a moral principle, requiring no proof, that we *ought to venture nothing where there is danger that it might be wrong* (quod dubitas, ne feceris! Pliny). [...] With respect to the action that I want to undertake, however, I must not only judge, and be of the opinion, that it is right; I must also be certain that it is. And this is a requirement of conscience to which is opposed *probabilism*, i.e., the principle that the mere opinion that an action may well be right is itself sufficient for undertaking it”. See also AA 8: 268.

practical morality. A characterization as doctrines for the use of opinions would have rendered their wider import more clearly visible.

In terms of doctrine, eighteenth century probabilism built on the innovations achieved in the later seventeenth century without making further progress – with one important exception: the rise of equi-probabilism. Equi-probabilism permits the choice of a less probable opinion as long as probability differences are small.⁹⁶ For large differences in probability, the choice of the most probable opinion is called for. Using differences in probability in this way insinuates a quantification of probability, and thus appears as a response to the rise of the modern numerical concept of probability (often also referred to as ‘probabilistic revolution’) since the middle of the seventeenth century. In any case, equi-probabilism offered an elegant compromise between the antagonistic approaches of probabilism and probabiliorism in Catholic moral theology.

The idea that the extent of differences in probability might influence the choice of opinions had occasionally cropped up throughout the seventeenth century. The first author to develop it systematically seems to have been the German Jesuit Christoph Rassler (1654–1723), who put forward a coherent version of equi-probabilism in his *Norma recti* (1713). Subsequently, the advantages of such a doctrine appealed to several authors throughout Catholic Europe, but it seems to have spread among German speaking theologians in particular, who carried on the theoretical development of probabilism in the first half of the eighteenth century. Eusebius Amort (1692–1775), an influential Augustinian canon and representative of the Catholic Enlightenment in Bavaria, where Rassler had also worked, embraced equi-probabilism.⁹⁷ He was a friend of Daniele Concina and of Alfonso de Liguori (1696–1787), who was inspired by Amort to adopt equi-probabilism. With Liguori, its compromise formula became a success story in Italy and a rallying point to which nineteenth-century neo-scholasticism harked back.

Equi-probabilism will not be investigated in the present study because this would require a rather different approach from the one chosen for probabilism. One problem is that equi-probabilism implicitly assumes quantifiable differences between probabilities without resorting to the modern

⁹⁶See Gury (1857), tract. 2 De consc., cap. 4, art. 1, n. 53: “Aequiprobabilismus, juxta quem licitum est sequi opinionem minus tutam, modo sit aequae probabilis ac opposita, vel fere aequae probabilis”; and Aertnys (1896); Deman (1936: 593); Jonsen and Toulmin (1988: 175); Schuessler (2003), Chap. 4, §5.

⁹⁷See Amort (1752); Amort (1758). On Amort, see Precht-Nußbaum (2007).

framework of quantitative probability. Introducing numerical probabilities and rendering quantification explicit is far from straightforward, given the claims that equi-probabilism makes. It is also not helpful that Amort and Liguori, the two best-known promoters of the doctrine, did not care much for developing the theoretical side of their approaches. It is, for instance, not at all clear to what extent equi-probabilism differs from moderate versions of probabilism. Liguori himself admits that a far less probable opinion might only be regarded as weakly probable (*tenuiter probabilis*), but weakly probable opinions had already been considered unadoptable by most probabilists.⁹⁸ Insofar, equi-probabilism requires a thorough and extended discussion that would make the present book much longer than it already is. Therefore, I set equi-probabilism aside for another investigation. It should be noted, however, that the rise of a new doctrine such as equi-probabilism in the first half of the eighteenth century documents that the life force of probabilism was far from spent at the time.

5. 1773–present: *Living on in Catholic moral theology*

The abolition of the Jesuit Order and the French Revolution largely removed the probabilism debate from the Catholic agenda for several decades (although never completely).⁹⁹ In 1814, the Jesuit Order was re-established. Gradually, Jesuits remembered their old predilection for probabilism and began to sympathize with its use again. The French Jesuit Jean-Pierre Gury (1801–1866) effectively resuscitated probabilism as a Catholic moral doctrine in the middle of the nineteenth century.¹⁰⁰ The controversy on the moral legitimacy and epistemological feasibility of the doctrine was subsequently reopened in Catholic neo-scholasticism, with notable forces once more engaging on both sides. In effect, probabilism was never abrogated in Catholic scholastic moral theology, it rather diminished in importance together with its mother discipline under the weight of modernity. The Second Vatican Council (1962–1965) virtually wiped out neo-scholasticism as a living

⁹⁸See Liguori (1831: 367); Jones (1992).

⁹⁹Important works on probabilism continued to appear even after the abolition of the Jesuits or the French Revolution, take, for instance, Bolgeni (1796); Caspar de Segovia (1795); Sasserath (1787).

¹⁰⁰Gury (1857).

tradition in Catholic theology. Today, probabilism no longer plays an effective role in Catholic theology. On the whole, probabilism is now a remotely remembered doctrine at best, marginalized by modern thought and its Catholic variants.

This outcome far from does justice to probabilism as a laboratory of a pluralism of opinions in the early modern era. The options, but also the problems, of systematically grounding a pluralism of opinions on moral and epistemological foundations were first investigated in depth in the probabilism debate. If we want to understand the genesis of modern pluralism without blending out important parts of its history, we should not accept the present neglect of the probabilism debate. Moreover, Catholicism can hardly develop an adequate position to modern pluralism without taking its own history of pluralism into account.¹⁰¹

¹⁰¹The present attitude of the Catholic Church towards probabilism and Baroque moral theology is not addressed in this book. Yet some ironies deserve to be noted. A Catholic traditionalism that downplays Baroque scholasticism interprets tradition from the perspective of its last period, namely twentieth century Catholic thought. Through selective re-interpretation, tradition thus almost becomes 'invented' tradition. Moreover, much of the modernization after the Second Vatican Council ignores the potential for modernity in the scholastic tradition, which is apparent now in the triumph of analytic philosophy. The analytic style in philosophy is a revival of scholastic methods, as intellectual historians have increasingly realized. Finally, scholasticism and Catholic anti-modernism are uneasy bedfellows. Catholic anti-modernism is a quintessentially modern reaction to the challenges of modernity. It is, in fact, modernism in disguise, because defensive reactions against modernity are an integral part of modernity. Catholic anti-modernism did not exist as a broad movement before the French Revolution, but emerged in the nineteenth century, not dissimilar to Islamic anti-modernism.

Chapter 4: The New Dual Notion of Probability and the Demise of the *Endoxon*

Probabilism sparked significant changes not only in scholastic approaches to the choice of opinions but also in the understanding of probability itself. This is one of the reasons why the invention of scholastic probabilism was a development whose importance reached far beyond the domain of practical ethics (that is, casuistry). Following the introduction of probabilism in the late sixteenth century, a new ‘dual’ understanding of probability emerged, which explicitly relied as much on known reasons for the truth of a proposition as on the authority of its supporters. Henceforth, opinions were usually called probable in moral theology if they were backed by good reasons or leading authorities. Good reasons were arguments, evidence, or considerations with which an agent could support his own opinions, or generally the truth of a proposition. Such reasons were soon associated with a specific kind of probability, namely reasons-based ‘intrinsic’ probability, whereas probability based on the opinions of others was referred to as ‘extrinsic’. The disjunctive character of the new understanding of probability made it possible to base a proposition’s total probability on either intrinsic or extrinsic considerations or on both combined. Hence, in principle, an agent’s or observer’s own reasons counted as much as the authority of others when establishing the probability of an opinion.

Endoxical probability, which had thus far prevailed in definitions of ‘probable opinion’, did not explicitly mention reasons for truth as grounds for probability, but relied on approval by others, be they a community, a large part thereof, or ‘the wise’. The new dual understanding of probability marked a break with the *endoxon* as the basis of scholastic probability, at least at the conceptual level. This is not to say, however, that seventeenth-century Catholic moral theology relied less on authoritative opinions than in previous centuries. Authoritative opinions, despite their numbers undergoing an inflationary expansion, remained the trading stock of Catholic moral theology. Nevertheless, as we will see, ‘good reasons’, the new second pillar of the concept of probability in moral theology, made themselves heard through the rise of authoritative voices. Moreover, they influenced the rules that guided the choice of opinions in various ways. The innovation implicit

in the rise of the new two pillar model of probability was thus important, even beyond conceptual issues alone.

At least in the first decades of dissemination of the new concept, scholastic authors hesitated to openly distance themselves from endoxical probability. Scholastics were mostly reluctant to break with Aristotle and often preferred to sell innovations as modifications of Aristotle's teachings. It should therefore not come as a surprise that the *endoxon* was often specifically identified with extrinsic probability, without mention that it had previously stood for probability as such. However, at least some scholastic authors in the second half of the seventeenth century acknowledged that with respect to theology, probability as a whole no longer fit the mold of the *endoxon*. These developments should have had some impact on the image of early modern scholastic thought. Scholasticism in general had the reputation of over-dependence on authority as a source of epistemic justification. Anyone familiar with scholastic thought knows that this allegation is exaggerated. Rational argument was always cherished in scholasticism, but it is also true that probability in theology relied on the *endoxon* in the Middle Ages, and hence on external authority. In the seventeenth century, this feature of the scholastic discourse on probability attracted the criticism of the philosophical avant-garde. Tacitly implying that not much had changed since the times of Aquinas or Duns Scotus, John Locke attacked the scholastics for their "wrong grounds of probability", which were received opinion and authority.¹ Modern histories of probability echo this critique by maintaining that scholastic probability remained authority-bound throughout the seventeenth century.² However, as already indicated, such accusations palpably neglect the momentous innovations in scholastic moral theology after 1577. They therefore obscure the scholastic contribution to the development of concepts of probability in the seventeenth century.

The rise of a new dual concept of probability in the late sixteenth century was recently investigated by Robert Maryks in his *Saint Cicero and the*

¹See Locke (1990: 711), book IV, Chap. 20, §7.

²See, e.g., Daston (1998: 1112): "Thus, the Thomist definition of 'probability' as opinion warranted by authority remained the principal sense of the word well into the seventeenth century and lingered even thereafter". In his influential account of premodern probability, Franklin (2001: 113) connects the Aristotelian (and medieval Thomist) understanding of probability as authoritative opinion to the "plague of [scholastic] probabilism" which spread in the 17th century. This is somewhat surprising because Franklin's (2001: 74-76) discussion of the origins of scholastic probabilism already documents that its originator operated with a different notion of probability (see also Section 2 below).

Jesuits (2008). Maryks addresses the Jesuit contribution to a new reason-oriented notion of probability and links it to the Jesuit predilection for Ciceronian rhetoric. He is—in my view—absolutely correct to emphasize the importance of the new concept of probability, and his book therefore serves as a main foil of discussion in the present chapter. However, in my view, Maryks’ claims concerning the Jesuits and the role of their Ciceronianism offer a too narrow explanation for a significant case of conceptual change. On the whole, I will suggest a broader picture of the provenience of the new concept of probability in scholastic moral theology without denying the importance of the Jesuits and a possible impact of Ciceronian rhetoric.³

1. The new dual concept of probability

The rise of probabilism in the late sixteenth century opened a new perspective with respect to the use of probable opinions and instigated doctrinal innovations throughout the seventeenth century. One of the first major innovations in the wake of probabilism was a new understanding of probability, which explicitly combined reasons and authority.⁴ Reasons for the truth of a proposition (e.g. arguments, observational evidence, etc.) and external authority as a warrant for truth could independently, but of course also conjointly, render a proposition probable. This, at least, was the message of the typical definitions of probability from probabilism’s heyday, such as the following:⁵

“A sentence is called probable, if it is not certain [i.e. certainly true], but supported by authority of some weight or a reason of no small force”.

³On the hand of the Jesuits in the rise of probabilism, see also Tutino (2018), Chap. 3.

⁴I concur with Maryks and Tutino (2018) concerning the importance of the new concept of probability (which Tutino also attributes already to Medina). However, I do not agree with Tutino (2018: 45) that the new concept is epistemological whereas earlier conceptions were not (see Section 7 below).

⁵Laymann (1626: 8), tract. 1, cap. 5, §2: “Probabilis sententia dicitur, quae certitudinem non habens, tamen gravi auctoritate, vel non modici momenti ratione nititur”.

Robert Maryks justly emphasized the importance of this conceptual change towards a notion of probability that explicitly relied on authority and reasons.⁶ To fully appreciate this, one has to understand the extent to which moral theology (and in particular, handbooks for confessors) had been in the grip of the Aristotelian *endoxon*. However, the case is not straightforward. Medieval usage of the term ‘probable’ (*probabilis*) did not exclusively rely on Aristotle’s definition of an *endoxon*, that is, on the conception of a reputable or plausible opinion held by all or most people, or by the wise. The frequent occurrence of an event, the credibility of witness testimony, or the partial inherence of a predicate in a subject could also be signified as “probable” (see Chapter 1). Nevertheless, the endoxical understanding of probability had prevailed in moral theological discourses from which Medina’s probabilism arose. It is therefore correct to focus on the *endoxon* in the present context. Moreover, endoxical probability was and is generally perceived as being based on authority, a view that early modern scholastics and modern historians of probability concurred on (see below Section 6). The cliché that scholasticism was excessively prone to relying on authority rather than on a scholastic author’s own reasoning is therefore strengthened by the endoxical understanding of probability. What critics usually do not realize is that this state of affairs ended with the rise of probabilism. From the late sixteenth century onward, definitions of ‘probable opinion’ in moral theology and in the confessional were no longer endoxical. Hence, an important element of the alleged authority-proneness of scholastic thought disappeared some time before the scholastic tradition (in its first and second long waves) came to an end. Philosophers from Descartes to Kant did in fact encounter a contemporary scholasticism that in important respects was much less authority-prone than its medieval predecessor – whose dependency on authority should also not be exaggerated.

The new concept of probability, as promulgated by probabilism, will here be referred to as a dual concept of probability because it relied on the twin pillars of reasons and authority. It is, of course, difficult to prove that this new concept of probability had not on occasion been used before the late sixteenth century – some sources may evade the attention of a researcher. But on the whole, the sources reveal a predominance in seventeenth-century

⁶The specific reference to moral theology is not fortuitous. Some authors explicitly called the new dual concept ‘theological’ probability, see Esparza (1669: 64), appendix, art. 72; Salas (1607), tract. 8, disp. 1, sec. 5, n. 43.

moral theology that contrasts with a conspicuous lack of earlier dual definitions in related texts. This finding should not be generalized for all areas of theological or philosophical discourse. Treatises on Aristotelian dialectic, for instance, often continued to focus on the *endoxon* for the simple reason that they expounded Aristotle's thinking. Yet only the understanding of probability in moral theology had an immediate impact on the regulation of opinions and their use, and the rapid transition to the new dual concept of probability in moral theology was therefore a momentous event.

It might be objected that the new prominence of reasons in definitions of probability is not a major step beyond the stage of probable reasoning in medieval scholasticism. In many scholastic questions, 'probable' seems to generally signify plausibility rather than mere approval by others, and scholastics apparently made judgments of probability on the basis of the reasons they had. On the whole, reasons and authority had always been prevalent in medieval views on epistemic justification. These observations are correct. It is not so clear, however, how these should be interpreted. Most reasons-referring judgements in medieval probable reasoning relate to the propositions favored by a given author, and thus what he himself considered as being more probable (*probabilior*) than the alternatives he rejected (see Chapter 1). The same is true for approaches to choice of opinions, such as Henry of Ghent's. The author's reasons for preferring an opinion to which Henry referred may be understood as reasons for considering an opinion as being more probable than all other alternatives. However, a more probable opinion was always probable in medieval scholastic usage, and a probable opinion was characterized through the *endoxon*. If we take this seriously, the set from which a more probable opinion is chosen following an agent's ranking of reasons is made up exclusively of Aristotelian *endoxa*. In fact, this assumption is quite plausible because the opinions scholastics discussed seriously were usually those that found sufficiently clever and tenacious defenders in scholastic debates, and therefore had backing by notable experts.

Recourse to reasons in judgments of greater probability among the precursors of Bartolomé de Medina in late or post-medieval Catholic moral theology can easily mislead modern scholars to believe that they already held a dual concept of probability or even forms of probabilism. It is thus worthwhile inspecting some key sources to dispel this misunderstanding. The fifteenth-century theologian, Johannes Nider, claimed that no agent confronted with contested expert opinions sins by choosing the side that is

more consonant to reason (*magis consona rationis*).⁷ This claim is fully in line with medieval juridical advice, and I take it to refer to the greater probability of the side that should be chosen. This subject was more systematically treated at the beginning of the sixteenth century in two influential analyses by Konrad Summenhart and John Major, who were both ‘founding fathers’ of early modern scholasticism.⁸ Summenhart listed seven conditions for adhering to one contested opinion more than to another (one is a prohibition, the other is a license) in the last question of his *Seven-part work on contracts* (1500). Five conditions, according to Summenhart, derive from the qualities of scholars (*doctores*) who propagate an opinion, and two relate to the foundations (*fundamenta*, i.e. justifying reasons) of the respective opinion. Summenhart clearly distinguished between internal and external reasons for the adoption of opinions, and between immediately reason-based and authority-based conditions. The sixth condition states:⁹

“[An opinion may be preferred] If the reasons for one opinion are better and more stringent than the reasons for the other.”

Major dealt with the choice of opinions in the prologue to his *Questions on the Fourth Book of Sentences* (1516). Like Summenhart before him, he also emphasized that the choice of opinions ought to be based on reasons. Authority can impugn the better reasons only if it is uncontrovertibly shown that the reasons in question are not true reasons but specious arguments.¹⁰

Early modern scholastic (or ‘second scholastic’) discussion on the choice of opinions largely began with Summenhart’s and Major’s analyses. Both regard reasons and authority as the twin pillars of choice of opinions. However, they do not thereby break with medieval views, which their analyses develop in greater detail. In this respect, it is noteworthy that neither Summenhart nor Major define probability in their quoted considerations. Both authors talk about greater probability, and the reasons they mention determine which opinions are more probable (*probabilior*) than others. I could not find an author of their time who took a different stance. Thomas de Vio,

⁷See Nider (1532: 80), pars 3, cap. 11.

⁸See Summenhart (1580: 558-570), q. 100; Maior (1516), prol. q. 2.

⁹Summenhart (1580: 562), q. 100: “Si rationes unius opinionis sunt meliores & magis stringentes, quam rationes alterius. ... ei enim quae meliori rationi innititur standum est”. (I quote the differently titled but more accessible 1580 edition of the *Opus septipertitum*).

¹⁰Maior (1516: 38), prol. q. 2: “ubi plus rationis est: illud potius est sequendum: nisi auctoritas irrefragabilis opposita ostendat non esse rationem sed sophisma”.

Cardinal Cajetan, an eminent commentator on Aquinas' *Summa*, wrote that the more probable side in a dispute is supported by better reasons (*melioribus rationibus innititur*) or is asserted by more learned and pious men.¹¹ Bernabe de Roses, a Hieronymite monk, tied greater probability to more valid reasons (*validioribus rationibus ac fundamentis*) in his long treatise on the variety of opinions.¹² Thus, before Medina, greater probability was clearly connected to reasons and not merely to authority. However, as already mentioned, a characterization of greater probability is not the same as a characterization or definition of probability. A more probable opinion in scholastic usage is always part of a pair of probable opinions. The better or more valid reasons that characterize the more probable opinion are therefore reasons to prefer one *endoxon* over another, as long as probable opinions are still characterized in the traditional Aristotelian way. Consequently, the better reasons in the quoted passages from Summenhart, Maior, Cajetan, and Bernabe de Roses can be understood as guiding the choice of *endoxa*. An explicit break with the *endoxon* as a basis of scholastic probabilistic reasoning requires an explicit alteration in the characterization of probable opinions. This, to the best of my knowledge, did not occur before Medina's invention of probabilism in the last quarter of the 16th century.

The significance of this point should not be underestimated, because the explicit formulation of assumptions or claims is a key feature of philosophical analyses, and the unfolding of a rich debate on the concept of probability in seventeenth-century scholasticism documents that philosophical analyses of probability rose to new heights after the new dual concept of probability had been introduced. It is a different question, of course, who inaugurated the new concept of probability. Maryks reserves a special role for the Jesuits in this respect, a claim that we will now inspect more closely.

2. Maryks' claim of the Jesuit origins of dual probability

When probabilism was invented, the Jesuit Order was only a few decades old, but it expanded dynamically and was quick to adopt the new doctrine. Jesuit theologians soon became major theorists of probabilism and, in fact, more

¹¹Cajetan (1627: 479), verbum 'opinione uti': "Pars autem probabilior illa dicitur, quae melioribus rationibus innititur, aut quae a pluribus doctis & piis viris ex professo asseritur".

¹²Bernabe de Rosas (1540: 172).

prominent in this respect than the members of any other religious order. Robert Maryks' claim in *Saint Cicero and the Jesuits* (2008) that the new dual concept of probability also originated from the Jesuits is therefore not surprising.

Maryks contrasts the rise of Jesuit probabilism in the 1590s with the positions the founders and first members of the Jesuit Order had held before then, particularly concerning moral convictions and confessional practice.¹³ He depicts the old guard of the Jesuits as a group of moral conservatives, whose attitudes pervaded the first confessional manuals and directories authored by members of the order. Moreover, Maryks claims that Jesuit moral conservatism largely conformed to medieval tutorism, which in his eyes represents the quite conservative doctrine that “for safety’s sake one should follow the law rather than the choice of his or her conscience”.¹⁴ As we have seen (Chapter 1), this is not a correct account of the medieval mainstream on the use of opinions, but the first Jesuits might well have held stricter views than most medieval scholastics. In fact, according to Maryks, rigid moral risk aversion prevailed in the Jesuit Order until probabilism was introduced.

Soon after 1580, risk aversion began being superseded by probabilism among the Jesuits. Maryks emphasizes the altered moral attitudes engendered by this development. Probabilism had a softening and liberalizing effect on Jesuit morality. Maryks disagrees with other scholars who see probabilism primarily as an instrument through which Christian consciences were to be guided by the authoritative opinions of others.¹⁵ On the contrary, probabilism in his eyes helped a believer defend his or her own opinion. Maryks' respective claim deserves to be quoted at length:¹⁶

“Establishing the liberty to follow one’s own judgment of conscience instead of *deponere conscientiam* in order to follow the law or the confessor’s opinion was an important shift that characterized the transition from medieval ethics into a modern mentality characterized by a higher degree of subjectivity, responsibility and interiority.”

¹³Maryks (2008), Chap. 2.

¹⁴Maryks (2008: 2).

¹⁵Maryks (2008: 113) against Turrini (1991: 302).

¹⁶Maryks (2008: 117). *Deponere conscientiam* means giving up one’s own judgment of conscience.

‘Deposing one’s conscience’ (*deponere conscientiam*) is a medieval phrase for modifying or dropping one’s moral opinion. This was usually done upon the instigation of a confessor who found fault with the moral opinion of a penitent and offered a better or safer alternative, suggesting that the better opinion ought to be endorsed by the penitent. Accordingly, the penitent’s former opinion had to be deposited. Maryks claims that probabilism helped bypass this process by ensuring that a penitent’s opinion would not be discarded, at least if it was probable. Thereby, probabilism fostered moral self-reliance in ethics. This claim, however, is controversial among specialists of early modern Catholic moral theology and probabilism. It requires more discussion than it can receive in the present chapter, but Chapter 11 will be wholly devoted to it.

Probabilism’s advance in the Jesuit Order can, as Maryks shows, be traced in the drafting stages of the *Ratio Studiorum*, the famous guideline of Jesuit education.¹⁷ The *Ratio* of 1599 reveals how far the Jesuits had ventured beyond their initial moral conservatism. In the section on “Rules of the Professor of Cases of Conscience”, any such professor is asked to:¹⁸

“substantiate his own opinions in such a way that, if another opinion is in some way probable and is supported by good authority, he will recognize it as also probable.”

The professor of casuistry (chairs for the study of cases of conscience had been established in Jesuit colleges since the 1540s)¹⁹ had to therefore look beyond his own considered views and acknowledge probable alternatives. Maryks shows that this demand, which displays a remarkable acceptance of a pluralism of opinions, had not yet been made in prior versions and drafts of the *Ratio Studiorum*. The version of 1586 considered it a sufficient ground of probability if an opinion was backed by good authors. This is the old criterion of the Aristotelian *endoxon*. The versions from 1591 onward, however, required not only support from good authors but also from probable reasons. This trend culminated in the official version of the *Ratio* of 1599, which finally

¹⁷Maryks (2008: 83).

¹⁸Quoted from Maryks (2008: 84).

¹⁹See Angelozzi (1981); Theiner (1970: 117); Garcia-Villoslada (1954: 71). However, according to ARSI Coll. Rom., the professorships for casuistry initially often remained vacant. Grendler (2017), Chap. 15; Hengst (1981), Müller (2000) offer a more general account of the Jesuit contribution to early modern theological education in Italy, Germany, and France.

embraced a dual concept of probability, so that the term ‘probable’ could—according to Maryks—be at the same time understood.²⁰

“as reasonably acceptable (as it was stressed by Cicero) and as approvable because of its extrinsic authority (as it was stressed by medieval moralists).”

After demonstrating how the concept of probability changed in the *Ratio*, Maryks follows the tracks of this shift in the writings of eminent Jesuits, addressing the contributions of Juan Azor, Gabriel Vazquez, and Francisco Suárez.²¹ Vazquez and Suárez, two of the most renowned Jesuit theologians of all times, were surely also the most important early theorists of probabilism in the Jesuit Order (see Chapter 2). Azor, who helped launch moral theology as a distinct theological subdiscipline, did not contribute much to the development of probabilism, a fact mirrored by Maryks’ rather subordinate treatment of Azor in comparison to Vazquez and Suárez. A more comprehensive look at the Jesuit adoption and development of probabilism during the first quarter century following the doctrine’s conception would also include at least Gregorio de Valencia, Tomás Sanchez, and Juan de Salas. Gregorio de Valencia brought probabilism to Germany, in particular to Bavaria and the Jesuit university of Ingolstadt, where it flourished until the prohibition of the Jesuit Order in 1773. Tomás Sanchez was a highly influential author on the ethics of sex and marriage, in addition to other subjects of practical ethics, and his liberating use of probabilism in these areas became a blueprint for innovative moral theology in the seventeenth century.²² Finally, Juan de Salas, professor of theology at the prestigious Collegio Romano, developed the theoretically most profound and most detailed account of a liberty-oriented probabilism in the initial decades following its inception. Nevertheless, if two representatives of early Jesuit probabilism need to be named, Vazquez and Suárez clearly deserve priority.

Gabriel Vazquez introduced the notions of intrinsic and extrinsic probability and thus laid the foundations for the terminological structure of

²⁰Maryks (2008: 85).

²¹Maryks (2008), Chap. 4.

²²Tutino (2018: 104) shows how Sanchez carefully balanced his application of the principle of the possessor’s better position by considerations of presumption (presumption who is in possession). I do not perceive any conflict between such careful hedging and a liberating effect of Sanchez’ doctrine. Liberation is already achieved if an author’s hedging or balancing turn out less restrictive than his predecessor’s.

the new dual understanding of probability. The terminology of intrinsic/extrinsic probability is the most visible sign of the influence of ancient rhetoric and dialectic, with their distinction between intrinsic and extrinsic grounds of argumentation (*loci*). Given this fact, it is a bit surprising that Maryks does not elaborate on this point but rather highlights another analytical achievement of Vazquez's as his most important contribution to the development of probabilism.²³ According to Maryks, Vazquez was the first author to systematically explore possible combinations of greater or lesser safety and of greater or lesser probability. (All four combinations are possible). However, medieval tutorists had already legitimized the choice between greater safety and greater probability, and the discussion of combinations of both attributes of opinions can therefore hardly be Gabriel Vazquez's most important contribution to probabilism. In fact, the difference between greater safety and greater probability, including the permission to follow greater probability, had already been discussed in some detail before Vazquez by Antonio de Cordoba (1485–1578).²⁴ This indeed leaves the introduction of the intrinsic/extrinsic distinction and the outlined justification in Chapter 2 of an accommodative use of probabilism as Vazquez's main contributions to the development of probabilism.

In fact, Maryks confirms that Vazquez was a key representative of a probabilism of external guidance, which emphasized that an agent could licitly follow the probable opinions of authorities against his or her own opinion, which he or she considered to be more probable.²⁵ Vazquez considered such a usage to be a major virtue of probabilism, although he did not believe that it was a novelty. In Vazquez's view, medieval regulations had already allowed learned doctors to follow the opinions of others which they deemed less probably true than their own, as long as these opinions did not lack reason and probability.²⁶ Moreover, this license was not restricted to

²³Maryks (2008: 120): "Vazquez main contribution lies in pointing out the possible combinations of safer/less safe with more probable/less probable opinions".

²⁴See Cordoba (1604), lib. 2, cap. 3, propositio 2: "Quando opinio probabilior asserit & iustificat quod in se non est tam securum, quam eius oppositum, tunc licet sit tutius talem opinionem non sequi: licitum tamen est eam sequi".

²⁵Maryks (2008: 121).

²⁶Vazquez (1606), q. 19, disp. 62, cap. 4, n. 14: "Veram igitur existimam sententiam, quam sequitur Bartolomaeus Medina in artic. 6 huius quaestionis, iamque in scholis, & multo ante communis fuit, nempe viro docto licitum esse contra suam opinionem, quam probabiliozem arbitrat, operari secundum opinionem aliorum. Et si opinio aliorum sit minus tuta, & suo iudicio minus probabilis, dum tamen ratione, & probabilitate destituta non sit. Haec autem sententia iuxta notata in praecedenti capite ita intelligenda est, retenta adhuc propria opinione, ut probabiliori & assensu illius per intrinseca principia, ita tamen ut per extrinseca principia

experts, as Vazquez showed using the example of a soldier who follows a superior's order although he himself considers the action ordered to be more likely morally wrong than an alternative. Medieval rules of conduct in war (*ius in bello*) had prohibited compliance with orders that manifestly violated natural law (in modern conceptualization: human rights), but a soldier had to follow orders that were at least probably licit.²⁷

Vazquez's interpretation of probabilism became a blueprint for its 'extrinsicist' application, that is, a justification for bracketing one's own moral judgment in favor of the opinions of others. It should be noted, however, that this interpretation of Medina's doctrine was neither the only nor the dominant one, even in the first decades of its existence. An interpretation of probabilism that favored an agent's freedom of choice emerged roughly at the same time as Vazquez's. This alternative seems to have first been conceived by Francisco Suárez, who was an important opponent of Vazquez in other respects as well. Suárez paved the way for a probabilism based on principles of free choice (see Chapter 2).²⁸ He introduced the so-called 'reflex principles' of Possessor and Uncertain Law into probabilism. Both principles defend human freedom of choice under uncertain or merely probable normative restrictions. Under such conditions, it remained legitimate to follow a preferred opinion in a particular case unless the agent was bound by moral restrictions, whose validity was beyond reasonable (i.e. probable) denial. Vazquez's and Suárez's contributions underline the importance of Jesuits in the early development of probabilism. It does not follow, however, that the Jesuits also spearheaded the new dual concept of probability, and there is good reason to doubt that they differed much from others in this respect.

Bartolomé de Medina, a Dominican, had already based a characterization of probability on reasons and authority in the context of his first formulation of probabilism:²⁹

existimans vir doctus contrariam opinionem esse probabilem in universum consideratam, formet sibi iudicium conscientiae singulare, quo iudicat licitum sibi esse sic operari”.

²⁷On doubtfully moral orders, see Russell (1977); Schuessler (2000); Schwartz (2019), Chap. 6.

²⁸Maryks (2008: pp. 123). On the antagonism between Gabriel Vazquez and Francisco Suárez in Jesuit theology, see the old account of Werner (1887), Vol. 4/2. Hill and Lagerlund (2012); Salas and Fastiggi (2014); Schwartz (2012); Sgarbi (2010) offer broad modern approaches to Suárez.

²⁹Medina (1580: 178), q. 19, a. 6: “Secundo sciendum est, quod opiniones sunt in duplici differentia, quaedam sunt probabiles, quae confirmatur magnis argumentis, & sapientium autoritate ... aliae sunt improbables, quae nec firmantur argumentis, nec maiorum autoritate”.

“Secondly it should be known that there are two kinds of opinions: some are probable, which are confirmed by strong arguments and the authority of the wise ... others are improbable, which are not supported by arguments or significant authority.”

Maryks claims that Medina still followed the Aristotelian tradition with this sentence, but the difference to endoxical probability in it is what is most striking.³⁰ The reference to strong reasons (or arguments) and authority in Medina’s explication of probability is an instance of the duality of reasons and authority, which according to Maryks forms the core of a new concept of probability. Hence, Medina should be regarded as one of the first proponents of this new concept. Medina’s allusions to reasons and authority were of course less refined than later formulations, which explicitly distinguished between intrinsic and extrinsic probability (see below). But they nevertheless mark a transition to the new dual concept, and many casual characterizations of ‘probable opinion’ in seventeenth-century moral theology are not more explicit than Medina’s.

Another significant early probabilist was the Augustinian friar Miguel Salon (1539–1621). His massive work on justice and rights (*de iustitia et iure*), published in 1598, contains a discussion whether judges (and confessors) may prefer a probable over a more probable sentence.³¹ Salon used a relatively complex characterization of ‘the probable’ in this context. That which is probable and secure (*secura*) is proposed by many notable and experienced men, grounded on true foundations and supported by the best reasons, on whose basis contrary arguments can be easily rejected, even if the opponents include many renowned authors and have very good arguments.³² Neglecting the reference to counter arguments for the moment, we again find a combination of reasons and authority as grounds for probability.

Medina and Salon wrote early enough to render it unlikely that they were influenced by a Jesuit trend towards a more reasons-based understanding of probability. Their remarks concerning probability rather

³⁰Maryks (2008: 115): “Following the peripatetic tradition, by ‘probable’ Medina meant mainly ‘approvable’, i.e. supported by wise men, and confirmed by very good arguments.”

³¹Salon (1608), q. 63, a. 2, concl. 4.

³²Salon (1608: 362), q. 63, a. 2, concl. 4: “Nam quae a multis viris gravibus & peritis proponitur, & veris fundamentis nititur, ac optimis rationibus confirmatur, & per quas argumenta opposite facile diluuntur, etiam si opposite habeat plures auctores & graves, ac optima etiam argumenta, est censenda probabilis & secura”. The reference to security in this context is an early example of the probabilist claim that probable opinions can be securely adopted in conscience.

confirm the assumption that the understanding of ‘probable opinion’ changed on a broad front in the late sixteenth century, a front comprising Catholic moral theologians from many different orders and allegiances. The Jesuits moved with this trend, but were not recognizably its instigators.

It is significant in this respect that Azor, Vazquez, and Suárez, the Jesuit probabilists Maryks focuses on, do not venture much beyond Medina in their characterizations of probability. Maryks does not discuss these authors’ definitions of probability in depth. His only quote from Suárez that comes close to a definition of probability is:³³

“It is enough for us to regard an opinion as probable, which is supported by trustworthy (*digna fide*) authority (which has much weight in moral matters) and does neither impugn received truths of the church nor evident reason, and does also not frivolously contradict the common and received doctrine of the learned (*doctrina doctorum*). Hence, the more an opinion participates in all these reasons, the more probable it is.”

As a characterization of ‘probable opinion’, this passage is surprisingly authority-bound. Suárez mentions evident reasons, but only in order to demand that they should not discredit the opinions in question. He does not say that good reasons ought to support the opinion. An impact of reasons is only adduced, as was already the case in the Middle Ages, for more probable (*probabilior*) opinions.

This should be borne in mind when reading Azor’s or Vazquez’s references to opinions that are more probable than others:

“More probable or more certain is the one [opinion, R.S.] called which is supported by more solid and better reasoning”.³⁴ (Azor)

³³Suárez (1856: 450), vol. 4, tract. 3, disp. 12, sec. 6: “Nobis nunc satis est, illam existimari opinionem probabilem, quae etiam nititur auctoritate aliqua digna fide (quae in re morali multum habet ponderis) et non repugnat, aut veritatibus ab Ecclesia receptis, aut evidenti ratione: neque etiam temere contradicit communi, et receptae doctrinae doctorum: unde quo plus opinio participaverit utramque harum rationum, eo erit probabilior”. (My translation). See also Maryks (2008: 116).

³⁴Azor (1602: 110), tom. 1, lib. 2, cap. 16: “Probabilior autem vel certior dicitur ea, quae firmiori, & meliori ratione fulcitur”. (My translation). No characterization of probability from Azor is quoted by Maryks.

“Moreover, among opinions some are more probable and others less probable. More probable is one which has better foundations (*fundamenta*), but less probable one for which, although it does not have better foundations, the foundations do nevertheless not lack sufficient probability.”³⁵ (Vazquez)

Azor clearly relied on reasons in his characterization of greater probability, but two chapters earlier, he maintained that opinions that derive from classical writers and are approved by the author’s testimony are probable.³⁶ Hence, Azor seems to stick to a more traditional conception of probability than Medina. Vazquez alluded to the better foundations of more probable opinions, thus indicating superior reasons, but his quote reveals nothing about probability as such because of the circular formulation that merely requires that less probable opinions are at least probable.

In sum, the Jesuit authors Maryks builds on did not break new ground with respect to conceptions of probability, and the conception they displayed was not specifically Jesuit. The author who sparked a new trend in conceptions of probability seems to have been Bartolomé de Medina, and the Jesuits who followed Medina most closely in this respect were Juan de Salas, who adopted Medina’s definition of probability verbatim, and Tomás Sanchez, who based probability on reasons in a way that became typical for seventeenth-century applied moral theology:³⁷

“An opinion is probable, which is supported by a reason of some moment, while no convincing argument speaks for the opposite side.”

After Sanchez, definitions of probable opinion relying on the twin pillars of reasons and authority proliferated in the works of theologians and casuists in the seventeenth century, not least because of the rapid success of probabilism. Regardless of claims of Jesuit origin, the novelty of these characterizations of

³⁵Vazquez (1606), q. 19, disp. 62, cap. 1, n. 1: “Praeterea inter opiniones alia est probabilior, alia est minus probabilis: probabilior est, quae meliora habet fundamenta, minus vero probabilis, quae licet non habeat fundamenta meliora, tamen fundamenta illius non sunt sufficiente probabilitate destituta”. (My translation). Passage quoted by Maryks (2008: 120).

³⁶Azor (1602: 104), tom. 1, lib. 2, cap. 14.

³⁷Salas (1607), tract. 8, disp. 1, sec. 5, n. 43, the quote is Sanchez (1614), lib. 1, cap. 9, n. 6: “opinio probabilis est, quae rationi alicuius momenti innititur, ita tamen, ut pro opposita parte nil convincens sit”. (My translation).

probable opinions deserves to be emphasized, and in this respect I fully concur with Maryks.

3. *Ciceronian influences?*

In Maryks' view, the Jesuits not only introduced the new dual concept of probability but also owed it to Ciceronian rhetoric.³⁸ This claim is not least interesting because it bases a momentous innovation in the scholastic discourse of probability on developments in Renaissance humanism, for which Cicero was a key figure, thus buttressing the received view of the lacking innovative power of scholasticism.

Rhetorical training was essential for Jesuit education, and the humanist focus on the rhetoric of Cicero or Quintilian was eagerly adopted by the Jesuits. While Aristotle held or regained his leading position in logic and dialectic in the sixteenth century, rhetoric came to be dominated by ancient Roman authors.³⁹ In the wake of this development, as Maryks argues, a change took place from authority to rational justification in the understanding of probability. The more Ciceronian rhetoric flourished among the Jesuits, the more Aristotle's concept of *endoxon* lost its appeal, and Ciceronian probability with its greater emphasis on truth-likeness (*verisimilitudo*) or reasons for belief gained the upper hand. Cicero suitably characterized probability:⁴⁰

“That is probable which for the most part usually comes to pass, or which is a part of the ordinary beliefs of mankind, or which contains in itself some resemblance to these qualities, whether such resemblance be true or false.”

For Maryks, this Ciceronian understanding of probability accounts for the emphasis on truth-tracking reasons and the relative downgrading of external opinions in Jesuit probabilism. Accordingly, the ‘reasons component’ of the new dual concept of probability can be linked to the influence of Cicero, and the ‘authority component’ to Aristotle and the *endoxon*. Thanks to the former

³⁸Maryks (2008), Chap. 3.

³⁹See Cox and Ward (2006); Mack (1993); Spranzi-Zuber (2011).

⁴⁰Cicero (1976: 85), 1, 29, 46.

aspect, Maryks attributes an “epistemic theory of probability” to the Jesuits,⁴¹ whose characteristics are verisimilitude, reliance on argumentation or testimony, and the aim of conviction.

In fact, an influence of ancient rhetoric on probabilism and generally on scholastic views on the use of opinions undeniably existed. The intrinsic/extrinsic terminology, which distinguishes between intrinsic, reason-based and extrinsic, authority-based probability, is perhaps the clearest proof for such a nexus. Ancient rhetoric and dialectic distinguished between intrinsic and extrinsic topics (*loci intrinseci* or *extrinseci*).⁴² Intrinsic topics denoted ideas or considerations that were constitutive for a disputed issue or followed logically from it, whereas extrinsic topics were contingently or circumstantially related to an issue. Authority was an extrinsic *locus*, the famous *locus ab auctoritate*, but in no way the only one. Regardless of this limitation, Vazquez’s influential reference to intrinsic or extrinsic principles clearly seems to be informed by the terminology of ancient rhetoric. Jesuit enthusiasm for rhetoric therefore appears as a plausible background for the distinction between intrinsic and extrinsic probability. It is not so clear, however, that Ciceronian leanings had an influence on Vazquez’s terminological innovation. The distinction between intrinsic and extrinsic *loci* was already well-known in the Middle Ages, and after the rediscovery of Quintilian’s rhetorical writings in the fifteenth century, Renaissance authors could approach the distinction through Quintilian as well. Cypriano Soares, one of Maryks’ key witnesses for Jesuit Ciceronian sympathies, based his understanding of probability mainly on Quintilian in his *De arte rhetorica*. He used Quintilian’s typical characterization of probability as fitting for a discourse (*consentanea*), which had made its way into Renaissance dialectic and rhetoric in the fifteenth century.⁴³ Given the long history of the intrinsic/extrinsic terminology, it is in any case difficult to pin its adoption by Vazquez to the influence of Cicero in particular.

It is also difficult to establish a special link of the dual concept of probability to Jesuit Ciceronianism. As shown, this concept was not specific to the Jesuits, but was also adopted by the Dominicans and Augustinians at the time it came into use among the Jesuits. This does not preclude a Ciceronian influence, because Ciceronianism might have had a broad general

⁴¹Maryks (2008: 105).

⁴²See Cicero (2003: 118), *Topica*, n. 8; Quintilianus (1996), 3, 6, 7; Rubinelli (2009).

⁴³Soares (1668: 55), lib. 2, cap. 8; on p. 60 follows the triple: “quod fere accidit, propensius, non repugnans”.

impact on scholastic thought through Renaissance humanism. The still popular view that Renaissance humanism and scholasticism did not touch upon each other, or felt contempt for each other in mutual isolation, is a gross overstatement.⁴⁴ Inasmuch, it should not come as a surprise if aspects of probability that pervaded the writings of Lorenzo Valla or Rudolph Agricola, for instance, spilled over into the scholastic probability discourse.⁴⁵ If so, it is to be expected that these influences were far-reaching, but not distinctively through the Jesuits.

The dialectic and rhetoric of Renaissance humanism, however, is only one possible vector of influence with respect to the new dual concept of probability in Catholic moral theology. (And neither Agricola nor any of his humanist followers used the characterization of probability that became standard in scholastic moral theology in the late sixteenth century.)

There are other possible vectors that are characterized by a similar plausibility of having instigated the rise of the dual concept. Medieval lawyers, for instance, operated with a considerably broader framework of probability than represented by the Aristotelian *endoxon*. The juridification of moral theology in the sixteenth century may therefore also have been instrumental for the rise of a dual model of reasons- and authority-based probability. Finally, ‘better reasons’ had already been used before Medina as criterion for the choice between probable opinions, that is, they offered grounds on which opinions were usually considered to be more probable than others. In the increasingly detailed discussions on the choice of opinions after 1500, this standard may simply have trickled down to definitions of probability. This is an entirely inner-scholastic scenario for the rise of the new dual concept of probability. All things considered, we lack the evidence to discern the relative impact of the already mentioned plausible vectors of influence. It is reasonable to assume that they all played a role in the transformation of scholastic probability, and that they mutually reinforced each other. At present, I would not risk making a stronger statement.⁴⁶

⁴⁴See, e.g., Field (1988), Chap. 4; Grafton and Jardine (1986), Introduction; Mann (1996: 5).

⁴⁵However, neither Agricola nor any of his humanist followers defined probability in ways that can be seen as variants of those that became standard in scholastic moral theology in the late sixteenth century.

⁴⁶Tutino (2018: 17) also warns against a mono-causal explanation of the rise of probabilism in this context.

4. *The heyday of the (unrefined) dual concept of probability*

With the rise of probabilism in the late sixteenth century, it became customary in Catholic moral theology to refer to strong reasons and weighty authority as bases of probability. This development was never reversed, but the criteria for probability were later tightened in the course of the acrimonious debate on probabilism. Around 1650, moderate probabilists and anti-probabilists alike added qualifications to the dual understanding of probability in order to curb an—in their eyes—overly permissive use and excessive scope of the term ‘probable opinion’ (see Chapter 8). There was hardly an opinion whose defenders would not consider its supportive reasons to be strong or find some concurring theologians whom they deemed authorities of sufficient weight. In fact, the notion of ‘intellectual authority’ underwent an inflationary expansion in seventeenth-century Catholic moral theology. The dual concept of probability thus triggered developments that unsettled contemporary observers more than just slightly.

Different prominent formulations of the new dual understanding of probable opinion appear to be combinations from a toolkit of only a few phrases. Some phrases, such as those referring to reasons (or arguments, or rational bases) and authorities, were almost always used, others added precision and were optional. In short, a dual definition of probable opinion could comprise the following elements:

Probable opinion:= an opinion [optional: which is not certain or provable] supported by reasons of some force or authorities of some weight, [optional: while counter arguments can be repelled] [optional: and whose opposite also has strong support by reasons or authorities].

An almost full complement of components can be found in Miguel Salon’s above quoted definition of probable opinion. A minimal version that only alludes to strong reasons or ‘reasons of some force’ and even neglects authority is found in Tomás Sanchez (see above) or in the *Resolutiones morales* (1636) of the notoriously permissive casuist Antonino Diana (1586–1663).⁴⁷ Diana speaks of reasons of some force (*alicuius momenti*), a formulation which,

⁴⁷Diana (1636: 196), tract. 13, res. 1: “operans secundum opinionam probabilem, non potest iudicari temerarius, neque imprudens, habet enim pro se rationes alicuius momenti: ergo si sic operans, non est imprudens, nec temerarius, non peccat”.

to the best of my knowledge, is the weakest requirement for reason-based probability to be found anywhere.

The fact that the probability of opinions could be based on reasons alone without mentioning authority is in itself significant, and corroborative of the rationalizing trend designated by Maryks. Such minimalistic formulations, however, do not indicate that the external authority of experts could not render a proposition probable in the eyes of the respective theologians, but that support from expert authority provided a reason to assent to the truth of a proposition. Hence, authority (of the right epistemic sort) could be subsumed under the reasons for probable judgment.

All renowned casuists of the first half of the seventeenth century operated with the new dual concept of probability. Diana, Laymann, and Sanchez have already been mentioned; here are a few more quotes:

*Gregory Sayer*⁴⁸

“What is proposed by many weighty and learned men, and is grounded on true and solid foundations, and confirmed by best reasons, by which counter arguments can easily be solved, even though opponents also have many and weighty authors and optimal arguments on their side, is nevertheless in practice to be considered probable and safe.”

*Antonio Escobar*⁴⁹

“Probable, however, is called an opinion that is supported by reasons of some force.”

⁴⁸Sayer (1605), lib. I, cap. 6, n. 2: “Nam quae a multis viris gravibus, & doctis proponitur, & veris, ac solidis fundamentis nititur, ac optimis rationibus confirmatur, & per quas argumenta opposita facile solvuntur; etiamsi opposita plures & graves authores, & optima etiam argumenta habeat, tanquam probabilis, & segura in praxi censenda est”. That is, Sayer adopts Salon’s characterization of probability with only marginal changes. I do not think that the ‘and’ in this characterization of probability is to be taken in its strict logical sense. Like other probabilists, I assume Sayer to claim that both, strong intrinsic reasons and extrinsic authority, can in themselves ground probability.

⁴⁹Escobar (1646: 24), ex. 3, cap. 3: “Probabilis autem opinio ea dicitur, quae rationibus innititur alicuius momenti”.

*Hermann Busenbaum*⁵⁰

“Who follows a sentence buttressed by weighty authority or a reason of no small force (for this is called probable) does not act temerarily but prudent”.

The more casually the term probability was circumscribed, the greater was the risk of a loose application in practice. Handbooks of casuistry were designed for use by priests and theologians who often lacked deeper academic training and could not be considered experts with respect to the weighing of reasons and authorities. They would therefore often accept any argument in favor of an opinion as justification of some force, and every casuistical solution they read about as authoritative. This was all the more so because reference to authority of some weight did not even in theory amount to much of a restriction. In Baroque casuistry, a single expert alone with sufficient yet ordinary academic training and experience could be considered weighty enough to ground a probability judgment. It did not require an Aquinas to be an expert in applied casuistry; academic training for applied moralists in the sixteenth and seventeenth century was less demanding than a full-fledged degree course in theology. We will pursue the issue of expertise and aggregation of expert votes in Chapter 6. For now, let us keep in mind that the new dual definition of probability was—at least until the middle of the seventeenth century—nearly universally accepted by Catholic moral theologians and casuists. Thereafter, more restrictive definitions were conceived, mainly to curb the scope of particularly loose interpretations of dual probability. In a final resort, however, the fight against loose interpretations of probability never fully succeeded as the many eighteenth-century editions of Laymann’s and Busenbaum’s manuals show.

Laymann and Busenbaum were Jesuits, whereas Sayer was a Benedictine and Diana a Theatine. The new understanding of probability, like probabilism, was therefore by no means specific to the Jesuits, even at the peak of its fruition. Paragons of orthodox Thomism, such as the Dominican Joao Poinot (aka John of St. Thomas, 1589–1644), embraced probabilism

⁵⁰Busenbaum (1652: 6), lib. I, tract.1, cap. 2, dub. 2: “qui sequitur sententiam gravi autoritate, vel non levis momenti ratione nixam, (haec enim dicitur probabilis) non agit temere, sed prudenter”.

and combined it with an emaciated definition of probability.⁵¹ The dual definition even entered Protestant casuistry, which in the seventeenth century followed the trend of its Catholic rival towards growing complexity, although it always remained more guarded in this respect. Friedrich Balduin (1575–1627), one of the most prominent Protestant casuists, defined probability in a way now familiar to us:⁵²

“Opinions are either probable, which are buttressed by reasons of some force or weighty authority, or they are improbable”.

5. *Intrinsic and extrinsic probability*

The individual usually credited with the introduction of a distinction between intrinsic and extrinsic probability is the Jesuit Gabriel Vazquez.⁵³ As shown above, Vazquez discussed the legitimacy of acting in accordance with another person’s opinion (e.g. a superior in a hierarchy) and against one’s own opinion in his commentary on Aquinas’ *Summa theologiae* (part I-II). He claimed that it had always been accepted for a person to subject herself to the guidance of others, even if her own opinions had to be bracketed in the process. Vazquez then analyzed how this could be understood in terms of probability.⁵⁴

“But this sentence [Medina’s probabilism], according to what was said in the preceding chapter, is to be understood so that although [the agent] retains his own opinion as more probable and assents to it because of intrinsic principles, he forms a particular judgment of conscience that it is permissible to act according to extrinsic principles by which a learned man assumes an opposite opinion to be probable all things considered.”

⁵¹Poinsot (1663), disp 12, a. 3, n. 6: “probabilitas speculativa est illa, quae nititur rationi, seu discursui probabili circa ipsam veritatem rei”.

⁵²Balduin (1654), lib. I, cap. 8: “opiniones sunt vel probabiles: quae vel ratione alicuius momenti, vel gravi autoritate nituntur: vel improbables”.

⁵³See Deman (1936: 417); Maryks (2008: 120); Vazquez (1606), q. 19, disp. 62, cap. 3.

⁵⁴Vazquez (1606: 418), tom. 1, q. 19, disp. 62, cap. 4, n. 14: “Haec autem sententia iuxta notata in praecedenti capite ita intelligenda est, retenta adhuc propria opinione, ut probabiliori, & assensu illius per intrinseca principia, ita tamen ut per extrinseca principia existimans vir doctus contrarium opinionem esse probabilem in universum consideratam, formet sibi iudicium conscientiae singulare, quo iudicet licitum sibi esse sic operari”.

Vazquez hence acknowledged that the opinion of the agent who accepts guidance from others need not be rejected. That is, the agent can uphold the greater probability of his opinion on the basis of ‘intrinsic principles’ (*principia intrinseca*), as Vazquez called them. Intrinsic principles apparently reflect the justifiable reasons for a person’s opinion. Note that Vazquez thus defended a crucial aspect of intellectual freedom. A sufficiently informed person ought to be allowed to retain her opinion, even if she can be required to act in accordance with a contrary opinion. Moreover, the scholastics regarded conformity to external opinions to only be legitimate within certain moral and epistemological limits. The external opinion in question must not be manifestly irrational or indefensible (*improbabilis*). Hence, Vazquez acknowledged that probability is a requirement for legitimate action, requiring that an opinion upon which one acts contrary to one’s own probable judgment must at least be probable according to external principles (*principia extrinseca*).

Vazquez did not explicitly specify the external principles in question in his printed commentary on Aquinas’ *Summa*. His reference to a learned man indicates that he probably had the principle in mind that an expert should be trusted in his own art.⁵⁵ However, Vazquez also claimed that the application of external principles legitimized a particular judgment of conscience. This leads to a broader understanding of the term ‘external principle’. General decision rules and norms of legitimate action under uncertainty, such as the probabilist principle “It is legitimate to follow any opinion that is at least probable”, could serve as external principles that render a conscience practically safe. Under this premise, following another person’s probable opinion was legitimate in practice, not because of the person’s authority but because of the permission granted by probabilism. Vazquez did not rule out this alternative; in fact, the term *principia extrinseca* was often used by Vazquez’s contemporaries and their successors to refer to decision rules, to the reflex principles of possession or to uncertain law.⁵⁶ Some authors even believed that Vazquez had such principles in mind, because they interpreted his quoted words as referring to the distinction between speculative and practical opinions rather than to reasons and authority.⁵⁷ Hence, the

⁵⁵Tutino (2018: 80) documents that the manuscript of Vazquez’ lectures on which the printed work is based is unambiguous concerning authority as the relevant external principle.

⁵⁶See, e.g., Azor (1602; 103), Vol. 1, lib. 2, cap. 8; Laymann (1626), tract. 1, cap. 5, n. 8.

⁵⁷Mercori (1658: 53), pars 2, art. 2.

distinction between intrinsic and extrinsic probability, which systematized the twin pillar model of reasons and authority in the seventeenth century, had not yet acquired its final meaning at the time of its conception by Vazquez.

That said, it should be noted that an overwhelming number of theologians soon understood Vazquez's intrinsic/extrinsic terminology as a reference to the reasons/authority distinction. Tomás Sanchez spoke of "external principles, that is, the authority of doctors [i.e. learned men]".⁵⁸ Juan de Salas explained that an opinion can be probable in two ways. First, because of intrinsic principles, causes or effects. Second, because of extrinsic principles, that is, the authority of others.⁵⁹ The famous theologian Rodrigo de Arriaga (1592–1667) explicitly attributed the identification of extrinsic principles and authority to Vazquez.⁶⁰

The widespread identification of extrinsic principles with authority as grounds for probability engendered a further terminological shift that led from reference to probability as being generated by extrinsic principles or authority (*probabilitas per principia extrinseca, seu per auctoritatem*) to the simpler and handier term 'extrinsic probability' (*probabilitas extrinseca*).⁶¹ Extrinsic probability was nothing more than probability generated by authority or the opinions of competent others. As such it could justify probability judgments on its own (if strong enough), or be combined with intrinsic probability, that is, probability arising from known or communicated reasons, to justify an overall probability judgment. To my best knowledge of sources, verbatim reference to intrinsic and extrinsic probability only came into use after 1660. It is foreshadowed by references to *probabilitas extrinseca* (and *intrinseca*) in the works of Juan Caramuel after 1640.⁶² Yet Caramuel preferred to call authority-based probability 'authentic' (*authentica*) probability. After 1660, the distinction between intrinsic and extrinsic probability is often explained in textbooks of moral theology under the heading "How many kinds of

⁵⁸Sanchez (1614: 32), lib. 1, cap. 9, n. 12: "per extrinseca principia, id est, doctorum auctoritatem".

⁵⁹Salas (1607: 1201), tract. 8, sec. disp. 1, sec. 6, n. 61: "Dupliciter posse aliquem existimare opinionem alienam esse probabilem, aut probabiliorem propria. 1. Per principia intrinseca, vel ex causis, vel effectibus. 2. Per principia extrinseca, scilicet, auctoritatem aliorum".

⁶⁰Arriaga (1644: 256), disp. 24, sec. 3, n. 11: "Observa, quod contra Vasquez supra probatum, est posse aliquam opinionem etiam per intrinseca principia, & non solum per extrinseca, seu per auctoritatem, iudicari probabilem". See also Bresser (1638), lib. 3, cap. 3, n. 31 for a similar statement. For Arriaga, see Saxlová and Sousedik (1998).

⁶¹See, e.g., Terill (1669), q. 2, ass. 2, n. 4: "Multae sunt opiniones probabiles, quae non habent contra se rationes fortes. Hoc maxime videre est in probabilitate extrinseca".

⁶²Caramuel (1640: 24), disp. 4, n. 53: "Probabilitas extrinseca pendet ab hominum auctoritate"; Caramuel (1652), fund.11, n. 271; Caramuel (1663: 41), n. 92.

probability are there?” (*quotuplex probabilitas*) in chapters on ‘the probable conscience’.⁶³

It should be noted that the authority that produced extrinsic probability was epistemic and thus linked to the expectation of speaking truth. With respect to the medieval usage of endoxical probability, authority had already usually been understood as the authority of experts, and thus as epistemic authority.⁶⁴ For most Catholic moral theologians of the seventeenth century, authority with respect to probable opinions retained this meaning. It continued to signify epistemic authority of ‘the wise’, aka experts or well-trained academics in a given field. Moreover, many authors on probability explicitly insisted that extrinsic probability needed to rely on good epistemic reasons. The Jesuit Martin Bresser (1584–1635) explained that authority is a good enough reason for holding a proposition to be true, but only if authority is based on truth-regarding reasons. Hence, although we believe because of authority, we do so because we strive for truth and take authority as its indicator.⁶⁵ The Jesuit Coimbra Commentators on Aristotle’s *Topics* faithfully quoted his definition of *endoxon*, then hastened to add that it is only a sign of probability but does not constitute probability if a proposition appears true to all or some people, because authority as such creates conviction (or faith; the Latin word for both is *fides*) but not probability.⁶⁶ Zaccaria Pasqualigo (1600–1664) dealt with the old question what we should do if the judgments of learned doctors contradict each other. He explained that this difficulty arises primarily with respect to the personal authority of doctors. If we focus on the probability of opinions, the opinions buttressed by better reasons should prevail. Pasqualigo warns his readers not to proceed blindly and ‘unenlightedly’ (literally: deprived of the light of nature) when following authorities.⁶⁷ In sum, seventeenth-century scholastic probabilists increasingly

⁶³Schildere (1664), tract. 2, cap. 2, §1, n. 15; Elizalde (1670), pars 1, lib. 1, cap. 4, §2.

⁶⁴For the other elements of the *endoxon*, approval by all or a majority, a dispute about an opinion was unlikely. Hence, the controversial opinions that scholastics traded were usually opinions of scholars or experts.

⁶⁵Bresser (1638: 270), lib. 3, cap. 3, n. 24: “supponi tamen ac praesumi, auctoritatem ratione sufficienti non esse destitutam, (nisi, scilicet, contrarium probetur) etsi tibi ea non appareat. Itaque auctoritas vere nititur etiam ratione vera vel praesumpta”.

⁶⁶Conimbricenses (1611: 735), In lib. I topicorum, explan. cap. 1: “Circa eandem particulam advertendum est, videri omnibus, aut aliquibus non esse rationem, cur aliquid sit probabile, sed signum probabilitatis quam secundum se vendicat: auctoritas enim fidem facit, non probilitatem”.

⁶⁷Pasqualigo (1641), dec 12, n. 1: “Haec quoque difficultas procedet, si tantum auctoritate stare velimus; nam si probabilitatem inspiciamus, ea opinio est praeferenda, quae meliori rationi nititur. Quod sane semper praestari deberet: quia sequi puram auctoritatem est coeco modo

insisted on reasons as a direct or indirect basis of probability and authority. ‘Reasons’ here refers to arguments, evidence, or information corroborating the truth of a proposition. Scholastics often spoke of ‘motives of the understanding’ (*motiva rationis*) in this respect, because the reasons in question had to be apt to induce the intellect to assent to the truth of a proposition. Authority could only adequately generate probability as epistemic authority, and hence in a last resort as a stand-in for truth-related reasons, which an agent need not know, but must assume to exist when relying on the competence of another person.

6. *Leaving Aristotle without saying goodbye*

The distinction between intrinsic and extrinsic probability documents that the seventeenth-century scholastic discourse on probability ventured beyond the Aristotelian *endoxon*. Probability (in relation to opinion choice) was no longer externally defined based on approval by all, a majority, or knowledgeable others. Given the new understanding of probability, it could even no longer be taken for granted that an *endoxon* was a probable opinion. What most people regarded as true was an *endoxon*, but it must neither rely on weighty reasons nor on renowned authorities. The most perspicuous change, however, was that a probable opinion could at least on an equal footing directly rely on reasons. On the whole, these developments are part of the epic story of the waning of Aristotelianism in the seventeenth century. We should, however, take care to not overinterpret this process and, in particular, to not paint Aristotelianism in too dark colors. Conservative scholastics and clerics undoubtedly defended an intransigent Aristotelian orthodoxy, but it would be erroneous to assess the *endoxon*’s loss of importance exclusively against this background of hardliners. Early modern Aristotelianism was not a monolithic corpus of unassailable dogma but a multi-faceted and dynamically evolving tradition of thought. Recent research has revealed that early modern Aristotelianism was so diverse that it is difficult to define a bracketing set of assumptions.⁶⁸ Some Aristotelians upheld the interpretations of medieval scholasticism, others strove to recover the real ancient Aristotle, while still

procedere, & se private lumine naturae”. It seems ironic, given this quote, that Pasqualigo was one of the reviewers of the Inquisition in Galileo’s process of 1632/33, see Blackwell (2006: 42).

⁶⁸See, e.g., Blum (2012); Kessler et al. (1988); Lines (2002); Schmitt (1983).

others struggled to keep Aristotelian doctrine up to date, and many combined these goals. Early modern Aristotelianism could therefore co-exist with a moderate modernizing attitude, and this fact needs to be taken into account when we talk about endoxical probability's reduction to extrinsic probability—a sub-species of probability—in Catholic moral theology.

The key question is, when does an innovation that cuts a predominant concept down to size and adds a new element constitute a step beyond an intellectual paradigm, and when does it only modify or modernize it? Any innovation stretches the relationship between a revised and an original doctrine – and sometimes it overstretches it. We usually lack objective criteria for distinguishing a stretch and an overstretch, and the respective judgment of observers is inevitably subjective or conditioned by prevailing conventions. That said, I will now offer my own view, according to which the new dual concept of probability was not merely a makeover of endoxical probability, not least because it adds a crucial element that became a game changer in modernity: explicitly reasons-based probability. In the hands of anti-scholastic moderns, this element became the core of a new paradigm of probability. The introduction of the dual concept of probability therefore appears to be a step beyond the old scholastic mold, but one performed by early modern scholastics themselves.

It does not follow, however, that the theologians who took this step intended to break with Aristotle. We should be aware that actual independence from Aristotelian doctrines is perhaps not the mark that separates modernizing scholastics and the anti-scholastic avant-garde of philosophy in the seventeenth century. As recent research has shown, Hobbes, Descartes, or Locke remained more deeply indebted to Aristotle than they deigned to admit, while modernizing scholastics ventured further beyond Aristotle than they believed.⁶⁹ The two camps are more clearly recognizable by their rhetoric. The anti-scholastic avant-garde vehemently attacked Aristotelianism, while most scholastics attempted to play down emerging differences with Aristotelianism. Emphasis on continuity was a characteristically scholastic trait, and may have been overused at times.

It therefore does not come as a surprise that the dual concept of probability was styled by some scholastics as representing the true meaning of endoxical probability. Juan de Salas wrote that according to Aristotle's *Topics*

⁶⁹See Ariew and Gabbey (1998); Blum (2012); Martin (2014); Mercer (1993); Sgarbi (2013), Introduction; Sgarbi (2017).

and *Ethics*, a probable opinion was asserted by the wise and confirmed by best arguments.⁷⁰ This, of course, is not Aristotle's topical definition of the *endoxon*. Salas bridged the difference by referring to Book 1, Chapter 4 of the *Nicomachean Ethics* besides the familiar definition of the *endoxon* in the *Topics*. In *NE* 1.4, Aristotle did not define probable opinions but wrote about their use in the methodology of ethics. He called the respective opinions "the most prevalent or that seem to have some reason in their favour" (1095a28). Salas, therefore, had a case for linking the new reasons-based element of probability to Aristotle and to interpret the *endoxon* in its light. At the same time, the need to invoke *NE* 1.4 shows that the traditional topical definition of the *endoxon* was not sufficient to represent the revised Aristotelian understanding of probable opinions. Medieval definitions of probable opinion had typically only referred to the canonical passage in *Topics* 1.1, and not to *NE* 1.4. Hence, even if it were admitted that Salas and his followers attained an improved understanding of Aristotelian endoxical probability, the understanding of their scholastic predecessors differed. Reference to *NE* 1.4 in Aristotelian definitions of probable opinion marked a departure from the conventional medieval endoxical notion of probability.⁷¹

It should be noted that the familiar understanding of probable as approvable (*approbabilis*) remained unaffected by these changes. There should be no doubt that 'probable' retained this meaning in the moral theology of the seventeenth and eighteenth centuries. Martín de Esparza (1606–1689), for instance, remarked that probable was understood as approvable among old and new 'Latin' authors alike, that is, as that to which the intellect could rightly approve, adhere, and assent with some fear that the opposite might be true (i.e. adhere as opinion).⁷² Claude Lacroix (1652–1714) succinctly stated that probable was the same as approvable, and anti-probabilists, such as Tirso Gonzalez (1624–1705) or Daniele Concina (1687–1756) concurred in this

⁷⁰Salas (1607), tract. 8, disp. 1, sec. 5, n. 43: "probabilis autem opinio, secundum Arist. I top c. 1 & 1. eth. c. 4 est, quam asserant viri sapientes & confirmant optima argumenta".

⁷¹For further references to *NE* 1.4 in discussions of the meaning of *opinio probabilis*, see Baldelli (1637: 393), n. 13; Scotti (1649: 14), tom. 1, opusc. 1; Vidal (1650: 385), inq. 1, cap. 21, n. 21. Izquierdo (1659: 147), tom. 1, disp. 4 argues for continuity because what appears true to 'the wise' is, in fact, a weighty and prudent foundation for probability judgments. But the point is, of course, that the converse need not be true.

⁷²Esparza (1669), appendix, art. 102: "Apud autores autem Latinos tam veteres, Sanctis quoque PP. comprehensis, quam recentes idem probabile sumitur passive, ut similiter dicebam supra, pro approbabili, seu pro eo quod approbare & cui adhaerere, ac assentiri intellectus merito potest cum formidine tamen partis oppositae".

respect.⁷³ However, the Aristotelian *endoxon* is usually equated with reliance on approved opinions, and approval should be distinguished from approvability. Esparza explained that approvable opinions rest on grounds that can rightly motivate the intellect to approve or assent to the opinion in question. This does not imply that such opinions actually require prior approval by all, a majority, or the wise. ‘Approvability’ in the meaning of scholastic probability is thus much more than a mere reference to opinions that have been approved by the Church or its theologians. The new definitions of probability in seventeenth-century moral theology express this broader meaning of probability quite well, whereas the endoxical definition of probability also ensured approvability, but leaned towards the approved. What all, a majority, or the wise approve of might *prima facie* be considered approvable, but not all that is *prima facie* approvable must concurrently be believed or have been believed by these reference groups.

The strongest support for an interpretation of the reasons/authority or intrinsic/extrinsic concept of probability as a step beyond endoxical probability comes from scholastics who recognized that the former and the latter differed significantly. Such a difference was increasingly acknowledged in the great debate on probabilism in the second half of the seventeenth century. By then it was claimed that the probability used by (moral) theologians was neither identical nor a variant of an ancient concept of probability, the *endoxon* included. The notion of probability which grounded the scholastic usage of opinions was explicitly addressed as ‘probability of the theologians’.⁷⁴ Juan Caramuel distinguished between philosophical and theological probability, but his apparent aim seems to have been to exempt the probability of philosophical claims to some extent from interference by theological authority.⁷⁵ More pertinent to our discussion is Martín de Esparza, who compared the theological concept of probability with ancient philosophical precursors and argued that the former was unlike either of three ancient concepts of probability, namely the probability of the Academic

⁷³Lacroix (1707), tom. 1, n. 131: “Admitto autem, quod probabile sit idem quod approvable”. See also Gonzalez (1694), diss. 1, §3, n. 17; Concina (1751), lib. 3, diss. 1, cap. 4, n. 1.

⁷⁴For reference to theological probability, see, e.g., Caramuel (1657), fund. 5, cap. 7, n. 279; Esparza (1669: 369), pars 2, art. 89; Haunold (1670), tom. 1, lib. 2, tract. 1, cont. 2; Salas (1607), tract. 8, disp. 1, sec. 5, n. 43.

⁷⁵Caramuel (1657), fund. 5, cap. 7, n. 279. Caramuel speaks here of the philosophical probability of Copernicanism – a bold topic given the condemnation of Copernicanism in Galilei’s trial.

skeptics, Aristotle's '*ut frequenter*' probability, and Aristotle's *endoxon*.⁷⁶ In Esparza's view, Academic skepticism had identified probability with any perceived appearance or likelihood of truth. Scholastic theologians, by contrast, demanded strong reasons or authority as grounds for probability. The difference between theological and (proto-)frequentist probability will be addressed shortly with reference to another author (Pietro Sforza Pallavicino). Let us focus on the difference between theological probability and the *endoxon*. Esparza explained that theologians called probable what was buttressed by an epistemic fundament of great momentum, and whose negation could not be convincingly ascertained.⁷⁷ Such probability usually arose from a controversy between experts. That is, probable opinions as discussed by scholastics were typically above the heads of the vulgar masses (*supra capitum insipientium de vulgo hominum*).⁷⁸ They were also not held by all or by an overwhelming majority of experts, otherwise no serious controversy would arise. Finally, the contestants on both sides were not necessarily the most eminent experts to be found. Hence, none of the five elements of Aristotle's concept of *endoxon* (all, the many, all experts, many experts, or the best experts) suited the use of probable opinions in scholastic theology. Esparza also quoted Aristotle *Topics* 1.8, stating that the opinions of the wise are not *endoxa* if they conflict with the opinions of the majority.⁷⁹ However, such conflicts were obviously the rule for probable opinions in scholastic controversies. It follows that scholastic theologians' usage of probable opinions differed markedly from the Aristotelian usage of *endoxa*.

There were different ways to digest this result. One of them led to a defense of Aristotelianism in theology by changing the theological notion of probability. This approach was grist on the mill of theologians who distanced themselves from the assumption that two contradictory propositions could both be probable. Without this key assumption, probabilism became impossible, as many anti-probabilists realized, but then a suitable notion of probability had to be offered to moral theologians to work with. Pietro Sforza Pallavicino (1607–1667), an influential Jesuit cardinal, outlined how such a

⁷⁶For the difference with respect to the Academics, see Esparza (1669), pars 1, art. 68–88, and with respect to frequentist probability, see art. 89–98. Discussion of the *endoxon* occurs in art. 99–102.

⁷⁷Esparza (1669), pars 1, art. 74: "Dicunt enim probabile, quod probatur fundamento magni momenti, & nihil convincens apparet in contrarium, idest nil certitudinaliter ostendens illud esse falsum".

⁷⁸Esparza (1669), pars 1, art. 101.

⁷⁹Esparza (1669), pars 1, art. 101.

new basis could be conceived (for more, see Chapter 12).⁸⁰ He proposed a new frequentism, which—whether through scholastic influences or not needs to be further investigated—soon became one of the trademarks of modern interpretations of probability. Frequentism defines probability on the basis of the ratio of positive events in a sequence of events. Ian Hacking has famously claimed that the frequentist view of probability was an innovation of the first rank in the seventeenth century, marking the dawn of modern probability. His critics quickly pointed out that frequentist notions of probability had been known in the Middle Ages and above all, already to Aristotle.⁸¹ A look at Pallavicino’s approach, however, shows that frequentism was—at least with respect to theology—considered an innovation in the seventeenth century, insofar as it was propagated as a replacement for the endoxical as well as the dual notion of probability in moral theology, where it had not played any major role before. That is, with respect to theology and the choice of opinions, frequentist probability was a novel and revolutionary approach, which undermined the longstanding assumption that both sides of a question could be simultaneously probable (they could not be most frequently true at the same time). However, since frequentism could be traced back to Aristotle, this innovative step could also be understood as a vindication of Aristotle – a possibility that must have appealed to many scholastics.⁸² On the whole, scholastic frequentists attempted to replace a problematic Aristotelian concept with another Aristotelian concept, which at the same time was on the rise in experimental science. (The young Pallavicino was an avid supporter of Galilei, and had been banned from Rome by Urban VIII in the wake of Galilei’s trial). In the end, however, frequentism did not gain the upper hand in theology because the mainstream Catholic moral theologians never abandoned the possibility of reasonable disagreement between scholastic authors and hence the possibility of both-sided probability.

⁸⁰See Sforza Pallavicino (1649), Bd. I, lib. 2, cap. 6, n. 116. Pallavicino’s approach is analyzed in Knebel (2000). Limitations of space do not permit a more detailed discussion on this important approach. However, it is important to not equate Pallavicino’s almost modern frequentism with much less sophisticated medieval notions of probability as “what usually happens”. Note that Pallavicino published his considerations on frequentism in 1649, that is, shortly before (!) the invention of modern probability calculus. For reasons of space, I have to refer readers who want to learn more about Pallavicino’s important analysis to Knebel (2000).

⁸¹See Hacking (1975); Garber and Zabell (1978).

⁸²See Sforza Pallavicino (1649), Bd. I, lib. 2, cap. 6, n. 116: “ab Aristotele definitur probabile *id, quod plerumque contingit*”. For a reply to the frequentist attack on probabilism, see Esparza (1669), appendix, art. 90 and Terill (1669: 12), q. 2, ass. 4, who notes the link to Aristotle: “Propositum sit explicare celebrem illam definitionem ab Aristotele sumptam: Probabile est quod plerumque contingit”.

It should also be mentioned that not all scholastic theologians tried to keep Aristotelianism buoyant. Some daring scholastics abandoned Aristotle, and therefore had no reason to emphasize continuity in matters of Aristotelian probability. Giulio Cesare Scotti (1602–1669) was a rival of Pietro Sforza Pallavicino among the Jesuits in Rome. He lost against Pallavicino in the competition for a prestigious professorship at the Collegio Romano, and moved to Padua as a renegade, where he could more freely teach contentious views, abandoning, among other things, Aristotelian key tenets in natural science. As for probability, Scotti opted for one of the new theological definitions, which he explicitly differentiated from Aristotelian precedent and endoxical probability, in particular.⁸³ He wrote that the five elements of the Aristotelian *endoxon* did not define probability, but merely reduced it to human authority. By contrast, Scotti regarded a probable opinion as a determinate judgment based on a reasonable motive, which was approved by wise (i.e. competent) persons. Note that a wise person here needs to approve a reason for assent to an opinion, not merely an opinion as such. Human (in contrast to divine) authority in favor of an opinion was therefore not in itself a reasonable motive, but only an indicator or a condition for finding one.⁸⁴ On this basis, Scotti insisted that the *endoxon* could not be used to satisfactorily define ‘probable opinion’. Most of these considerations are also found in Esparza, who, however, wrote after Scotti. Moreover, Scotti went much further in openly breaking with Aristotle.

Last but not least, let us come back to the identification of the *endoxon* with extrinsic probability. Anthony Terill (1621–1676), for instance, wrote that Aristotle ‘beautifully’ (*pulcherrime*) defined extrinsically probable opinion in *Topics* I as what appears to be true to all, the majority, or the wise, and of these either all, most, or the most prominent.⁸⁵ Hence, Terill recognized that

⁸³Scotti (1649), tom. 1, opusc. 1. On Scotti as an individual and his relationship with Sforza Pallavicino, see Affo (1794: 5, pp. 26).

⁸⁴Scotti (1649: 17), tom. 1, opusc. 1: “Quinque igitur opinionum probabilium species colliguntur ex Aristotelis definitione; quae tamen ad huc non videtur explicare a priori “Quid sit esse probabile” et in auctoritatem humanam videtur resolvere opinionis probabilitatem. ... Cum igitur omnes allatae definitiones difficultatibus obnoxiae sint, censemus sic definiti posse opinionem probabilem est ‘Iudicium determinatum ad unam partem contradictionis etc. nixum rationabile motivo; quod ut tale a viris sapientibus approbatur’. ... Quare auctoritas humana non se habet hic ut motivum opinionis probabilis, sed ut conditio, vel ratio explicans, sive ut quod concomitans naturam motivi probabilis”.

⁸⁵Terill (1669), q. 2, ass. 5: “Opinio extrinsece probabilis pulcherrime definitur ab Aristotele primo Topicorum cap.1. Probabilia sunt, quae videntur omnibus, vel plerisque, vel sapientibus, atque his vel omnibus, vel plerisque, vel maxime notis”. On the important probabilist Terill and his dispute with Miguel de Elizalde, see Chapter 8.

the *endoxon* stood for an authority-based type of probability, which by then was called extrinsic, and distinguished it from explicitly reasons-based intrinsic probability. The fact that only half of the new dual concept of probability was rooted in the *endoxon* documents that its entirety was no longer identical with endoxical probability in the minds of seventeenth-century scholastics such as Terill. Moreover, it was not only probabilists who limited the *endoxon* to extrinsic probability. The same assumption can be found in Terill's great adversary, the anti-probabilist Miguel de Elizalde (1617–1678). Elizalde discussed many probability-related passages in Aristotle's writings to buttress his own frequentist conception of probability. However, reference to *Topics* I.1, the *locus classicus* for the *endoxon*, is only made with respect to extrinsic probability.⁸⁶ In the second half of the seventeenth century, the identification of extrinsic with endoxical probability seems to have become the norm, as seen in important textbooks like Claude Lacroix's *Theologia moralis*.⁸⁷

In light of these developments, it seems necessary to reconsider my claim that the High Casuistry of the seventeenth century represented a departure from endoxical probability. On the one hand, the understanding of probability in Catholic moral theology was no longer wholly endoxical; on the other hand, the *endoxon* may have de facto remained dominant if the majority of persons used extrinsic probability to plan and justify their actions. Albert Jonsen and Stephen Toulmin suggest as much by contending that “intrinsic probability began to wither” in the shadow of a huge number of quotable authorities in seventeenth-century casuistry.⁸⁸ They thereby correctly refer to the vast set of probable casuistical opinions from which agents could pick, implying that agents could not really think up a viable moral opinion that had not already been endorsed by some theologian and therefore (at least so it seems) possessed extrinsic probability. On closer inspection, however, the category of intrinsic probability proves indispensable for the broadening of the base of authorities in seventeenth-century Catholic moral theology. We should ask why any well-trained casuist or theologian could be considered a probability-conveying authority even if he opposed a multitude of equally well-trained others (see Chapter 6). Such a wide ascription of authority was hardly compatible with the meaning of the *endoxon*, as Esparza pointed out: a

⁸⁶Elizalde (1670), pars 1, lib. 2, q. 18, §2. For another identification of the *endoxon* with extrinsic probability by an anti-probabilist, see Palanco (1694), q. 22, n. 20.

⁸⁷Lacroix (1707), tom. 1, q. 18, n. 113.

⁸⁸Jonsen and Toulmin (1988: 168).

casuist or theologian, who opposed a multitude of others, was obviously not a representative of a consensus or of a majority of the wise, even assuming that ‘wisdom’ can in the present context be reduced to expertise. The possibility remains that he might be one of the wisest, but most casuists were clearly not in the league of Aquinas, Duns Scotus, or Ockham. Hence, as far as endoxical probability was concerned, ordinary casuists or theologians should not have been entitled to generate extrinsic probability. That their opinions could be considered extrinsically probable by others depended on the assumption that their training enabled them to find ‘some good reasons’ for their opinions.⁸⁹ This, however, invokes intrinsic probability and shows that far from withering in the face of so many authorities, intrinsic probability offered the grounds for attributing authority to them. Despite the widespread contemporary identification of the *endoxon* with extrinsic probability, it is wrong to assume that endoxical probability burgeoned during the high tide of early modern casuistry. The high tide of casuistry only becomes understandable if the dual concept of probability is taken into account in its entirety.

On the whole, the debate on probable opinions in the second half of the seventeenth century, and the investigations of the concept of probability it triggered, rendered scholastic authors increasingly aware that the prevailing notions of probability in theology differed more from their ancient precursor concepts than previous generations of scholastics had realized or admitted. It was still possible for moral theologians to ignore such results and to continue as if nothing had happened. The more perceptive contributors to the debate on probable opinions, however, looked for remedies to this situation. Some of them accepted the distinctive nature of theological probability and sacrificed direct backing by ancient philosophy. Others returned to ancient philosophy to look for alternatives to the established theological concepts of probability and favored an updated version of Aristotle’s frequency view of probability. All these options imply some kind of change, and none of them stands for an unaltered reliance on the *endoxon* in matters of probability.

⁸⁹See Lacroix (1707), tom. 1, lib. 1, q. 25, n. 162, where the author asserts that summists who examined the cases they collected according to best practice in moral theology should be considered to have probability-conveying authority.

7. Conclusion

The major incident discussed in this chapter was the rise of a new scholastic concept (or definition) of probability in the late sixteenth century. This dual concept in its clearest formulation comprised the two options of intrinsic, or immediately reasons-based, and extrinsic, or authority-based probability. A proposition was called probable on grounds of one of these aspects or both in combination. Hence, reasons for the truth of a proposition now played an important immediate role in the mainstream theological definition of probability, a role on a par with authority or even superior to it because probability-conveying authority only reflected the reasons of well-trained evaluators. This may have motivated Stefania Tutino to speak of a new epistemological understanding of probability with respect to probabilism.⁹⁰ In fact, I fully share the view that the epistemological side of probabilism was of utmost importance, as this book documents. However, it should not be forgotten that already the medieval endoxical concept of probability was epistemological. Probability was an indicator of truth even then because what all, most, or the wise believe may (prima facie) be confidently be regarded as true and is true with some high likelihood. New after Medina was thus not that probability was an (fallible) indicator of truth but that this indicator might be directly reasons-based (i.e., intrinsically probable). This is not tantamount to a distinction between an epistemological and a non-epistemological approach to probability. We should be very careful not to misrepresent the alleged rise of new concepts of ‘epistemic probability’ with a too neat distinction between ‘moral’ or ‘topical’ (old) and ‘epistemic’ (new). Having said this, I should emphasize that the deep epistemological analyses in the probabilism debate after 1640 contribute much to rendering the doctrine highly interesting even today.

Endoxical probability mirrored just one side of the new dual concept of probability, that is, its extrinsic side, but even in this respect, closer inspection

⁹⁰Tutino (2018: 45): “With Medina, by contrast, probability assumes an autonomous, if embryonal, epistemological role: precisely because the category of probability requires certain specific epistemological criteria, probable opinions can occupy a proper epistemological space that allows them to serve as a certain guide for our actions in a specific context”. Probable opinions are not epistemologically certain, but they can establish moral certainty in the sense of a certainty not to be legitimately blameable or not to sin. However, this possibility was already acknowledged in the Middle Ages, albeit not for *less* probable opinions. Pasnau (2017: 38) also considers the notion of epistemic probability to be absent in the Aristotelian tradition. As indicated, I disagree with this view, maintaining that complex shifts in the epistemic role of probability occurred in the early modern era, but not a shift from non-epistemic to epistemic.

reveals a significant shift. The rise of probabilism legitimized the *prima facie* ascription of extrinsic probability to the opinion of a handful of theologians, or even a single theologian, who disagreed with an overwhelming majority of others (see Chapter 6). Under these premises, even theologians who did not belong to the cream of their discipline ('the wisest') could produce extrinsic probability. This possibility was also endorsed by most anti-probabilists, who did not require more than one or two handful of scholars as a quorum for extrinsic probability. The claims of seventeenth-century Catholic moral theology at large and the practices of High Casuistry were therefore incompatible with the textual meaning of the *endoxon*, a fact that several scholastic authors realized. The situation had been different before the Council of Trent and the enormous expansion of schooling in casuistry and moral theology it engendered. The few dozen experts on practical morality, who had written handbooks for confessors before Trent, could with a grain of salt all be considered as the wisest in their field. This was no longer possible for the hundreds or thousands of theologians who published cases of conscience in the seventeenth century. Consequently, the importance of the Aristotelian *endoxon* as a foundation for probability ascriptions in practical theology decreased considerably after the Council of Trent.

Once this is understood, it becomes clear that anti-scholastic clichés of a petrified scholasticism's stubborn reliance on authority-prone notions of probability in the early modern era are severely misleading. In fact, reasons-based probability was introduced into scholastic moral theology before the most prominent early modern critics of scholastic probability became its champions. Moreover, on a normative level, authority was not a stand-in for official approval, but a feature of bearers of opinions who could be expected to have good reasons for finding the truth. To be sure, scholastic authors and the anti-scholastic avant-garde of early modern philosophy differed with respect to who could be expected to hold true opinions. The expertocratic view, which prevailed throughout the scholastic tradition, focused on academic training and success, acclaimed publications (in manuscript and print), and performance in academic debates as indicators of expertise in a field of inquiry. On the whole, scholastics adhered to the institutional indicators of expertise that had emerged in medieval universities and on the basis of scholastic debates. The early modern anti-scholastic avant-garde, by contrast, honored documented excellence in experimental science and with respect to a wider spectrum of intellectual communication (e.g. in intellectual

salons and amateur circles), regardless of a scholar's institutional training or academic degree. It thus fostered the rise of 'gentleman science' and the formation of a republic of letters that was not restricted to graduates of scholastic institutions.⁹¹ Such differences in the ascription of expertise largely account for the differences in scholastic and anti-scholastic social epistemology in the seventeenth century and later in the Enlightenment era. Yet they only demonstrate that the scholastic institutional indicators of expertise became problematic at the time due to a large-scale paradigm shift in science, letters, and education. They do not show that the scholastic institutional approach was wrong in principle; after all, amateur physicists no longer play any significant role for the progress of physics today, and expertise is again ascribed on the basis of an academic track record and publications. Most importantly, however, scholastic and post-scholastic epistemologists agreed that probability-conveying authority should be based on a propensity to find the truth or truth-related reasons.

Robert Maryks deserves praise for highlighting the beginnings of moral theologians' departure from the *endoxon* and their shift towards explicitly reasons-based probability. This was a marked change, even if we take into account that an author's reasoning always played a significant role with respect to the choice between probable opinions. Nevertheless, I do not fully agree with Maryks' theses concerning the Jesuit origins of the new dual notion of probability and their Ciceronian background. The terminology of intrinsic and extrinsic probability was apparently introduced by the Jesuit Gabriel Vazquez, but generally, a dual reasons and authority-based notion of probability emerged on a wide front in late sixteenth-century Catholic moral theology. Cicero's rhetoric may have been influential in this respect, but again on a broad front in scholastic thought, and it is difficult to ascertain whether it had more impact than other plausible factors.

⁹¹On the early modern 'Republic of Letters', see, e.g., Goodman (1994); Shelford (2007); on 'gentleman science', Biagioli (1993); Shapin (1991); and on the culture of politeness, France (1992); Klein (1994).

Chapter 5: Selection Criteria, Common Opinion, and Ordinary Persons

What were the guiding criteria, apart from probability and safety, for the choice of external opinions in early modern scholasticism? Various lists of such criteria, from the beginning of the sixteenth century to the debate between probabilists and anti-probabilists, help answer this question. They show that more than probability and safety mattered for the choice of opinions. They also document that probability played an increasingly prominent role in this respect after the rise of probabilism. Besides the quality of an opinion, regulations on the use of opinions also heeded the quality of the disseminators and users of opinions. Competence or ignorance, skill at finding the truth or rashness of judgment, as well as piety, virtue or observed dishonesty determined the roles that speakers and hearers played in scholastic doctrines on the use of opinions. The present chapter addresses these issues, and thus helps gauge how close scholasticism came to possessing what today is called a social epistemology.¹

It would be wrong to assume that we will thereby encounter a tight set of universally valid regulations. There was no authoritative, universally imposed set of criteria for assessing the quality of opinions, speakers, and hearers. Significant overlap certainly exists between different sets of criteria, and we will therefore be able to distinguish what mattered. Yet in their ranking of criteria, competent reasoners (or those held to be such) were more or less free to choose from a variety of alternatives that were current among scholastic moral theologians. To some extent, this meta-pluralism of criteria for choice added to the scholastic pluralism of opinions. Nevertheless, despite all this diversity, the expertocratic outlook of scholasticism remained in place and restricted the scope of persons who were entitled to judge the criteria for choice of opinions. Self-reliant choice among a variety of probable opinions was primarily a privilege of those competent in a field of inquiry, while the uninitiated had to seek guidance from experts. (Who were told by probabilists, however, to not overrule ordinary people's opinions that could be defended as probable, see Chapter 11). This expertocratic framework contrasts

¹For modern views on social epistemology, see Goldman (2015).

considerably with the more egalitarian moral epistemology of the post-Enlightenment era, which will also be addressed in the present chapter.

1. Selection criteria for authors and opinions

Scholastics did not only develop doctrines for the choice of opinions, but also reduced them to the user-friendly shape of decision procedures or lists of criteria. Such ‘checklists’ for determining whether an opinion could be followed or an author be trusted offer important insights into the mindset of their creators. The no-nonsense, bullet-point format of the checklists suggests that applicability mattered significantly. Moreover, a pluralism of scholastic approaches is observable as well, because different authors proposed very different checklists in all periods we explore.

We have already encountered an early and still inchoate example of a list of criteria for the choice of opinions in Chapter 1. In the thirteenth century, Henry of Ghent (c.1217–1293) recommended considering three issues for choices from a variety of opinions that arose from disagreement among scholars:

- the quality of the scholars, i.e. whether they are veracious and well-trained,
- the reasons and grounds for the scholars’ judgments, identifying the side with more valid and effective reasons or the stronger authorities,
- the quality of the hearer and his level of education, that is, whether he is competent to judge an issue or not.

Henry’s focus on the quality of the sender, message, and receiver is still easily intelligible.² His criteria of quality might still appeal to us today, with the likely exception of the reference to authority, which modern interpreters might want to downgrade. This downgrading can be largely warded off if authority, as is often the case in the scholastic tradition, is understood as a proxy for expertise. The Latin term *auctoritas* could also, of course, refer to the

²The triad of sender, message, and receiver is familiar from modern semiotics. The scholastic treatment of signs (*de signis*) was highly developed in general and resembled modern semiotics more closely than many humanist or Enlightenment theories of signs, as recent studies have shown (see Deely 2008; Meier-Oeser 1997).

authority of the Church to prohibit opinions, but this is hardly the case in the present context. Henry discussed the choice of opinions in cases of a legitimate contrariety of opinions among scholars. Hence, he alluded to the diversity of academic opinions of his time, which created an officially accepted space for discussion and disagreement, even though its boundaries were protected, if deemed necessary, by fire and sword.

Henry's three dimensions of consideration were highly influential and often quoted by medieval and early modern successors. Since we are mainly interested in post-medieval developments, however, it may be excusable now to press the fast forward button and jump to the beginning of the sixteenth century to two lists of criteria for the adequate choice of opinions, which I will use to exemplify the state of the art before the rise of probabilism.

1.1 The 'checklists' of Konrad Summenhart (ca. 1450–1502) and Martín de Azpilcueta (1493–1586)

In the early sixteenth century, two approaches to choosing from a variety of opinions acquired peculiar significance for the further development of this subject area when judged by the frequency of quotations in later texts: the approaches of John Major (or Mair) and Konrad Summenhart.

John Major was a Scottish logician, philosopher, and theologian, who taught at the University of Paris in the first decades of the sixteenth century.³ He was a towering figure, influencing students as diverse as Francisco de Vitoria, Domingo de Soto, Erasmus of Rotterdam, François Rabelais, and the Scotsmen John Knox and George Buchanan. Major discussed the choice of opinions in the prologue of his commentary on Book Four of Lombard's sentences. The prologue's second question discusses what to do when there is a clash of opinions (*contrarietas opinionum*), in particular if it pertains to morality (*mores tangentium*).⁴ In the most straightforward case, Major looked

³On John Major or Mair, see Broadie (1985); Garcia-Villoslada (1938); Renaudet (1981); Slotemaker and Witt (2015).

⁴Major (1516: fol. 2), q. 2: "Secunda queritur quid in contrarietate opinionum potissimum mores tangentium faciendum est". On Major's moral theology, see Keenan (2015), whose conclusions I do not, however, concur with. The Parisian context of Martin le Maitre is less instructive for interpreting Major's contribution than the European contemporary context of Adrian of Utrecht, Biel, De Vio, Summenhart, and Silvester Mazzolini, to name but a few. Le Maitre played only a minuscule role in this context, while Major was an integral recipient and contributor to the larger Europe-wide debate in moral theology.

at disputes in which one side declared an action to be sinful, while the other considered it to be licit. In a first assertion, Major claimed that in cases that did not touch upon faith and good morals, we should simply follow the opinion that better conforms to reason. ‘Reason’ here apparently refers to reasons for assuming the truth of a proposition. Major accepted as reasonable that Thomists follow Thomas, Scotists follow Scotus, and the rest follow their intellectual leader, “since all planets have most force in their own house”.⁵ Hence, Major expressly acknowledged a pluralism of perspectives and a corresponding variety of intellectual preferences. He also emphasized the priority of reason over authority under conditions of disagreement, advocating choosing the side with better reason(s), but only if no irrefragable authority proves that the reason in question is, in fact, only a sophism.⁶ In the end, of course, the assessment of reasons had to bow to the highest authority of the Church. Major’s second conclusion dealt with matters of faith. He declared that it was not sinful to uphold opposite claims in matters of faith given that it was unclear which side was true and had to therefore be believed (*de fide*). This was usually the case if knowledgeable and experienced reasoners held opposite views on a given matter.⁷ Major’s conclusion shows that scholastic theologians consciously endorsed a theological pluralism of opinions within the confines of what was determined *de fide*, that is, within the bounds of truths of faith to be believed by all Christians.

If John Major thus permitted choice where a variety of opinions was considered legitimate, his German colleague Summenhart was hardly less open-minded. Konrad Summenhart was a renowned theologian at the University of Tübingen in southern Germany. He became famous in his time for the ‘Seven-part work on contracts’ (*Septipertitum opus de contractibus*), a monumental treatise on economic ethics from a moral-legal rather than a positive law perspective. With its strong focus on property rights (*dominium*), Summenhart’s profusely quoted treatise contributed decisively to the rise of the idea of subjective rights in early modernity.⁸ The important genre of

⁵Major (1516: fol. 2), q. 2, concl. 1: “Non est irrationabile quod Thomistae Thomam, Scotistae doctorem subtilem et reliques suos duces insectentur more patrum ... in sua domo planeta quilibet maiorem vigorem habet”.

⁶Major (1516: fol. 3), q. 2, concl. 1: “ubi plus rationis est: illud potius est sequendum: nisi auctoritas irrefragabilis opposita ostendat non esse rationem sed sophisma”.

⁷Major (1516: fol. 3), q. 2, concl. 2: “Non est peccatum circa materiam fidei hanc partem tenere vel illam ei contradictoriam: dummodo non constat utra pars sit de fide et vera: sed sapientes et exercitati in illa parte tenant opposita”.

⁸On Summenhart, see Ott (1966); Varkemaa (2012).

treatises ‘On justice and rights’ (*De iustitia et iure*), which emerged in the sixteenth century, owed much to the example of Summenhart, whose final question (q. 100) dealt with right action in cases in which the permissiveness of a contract was disputed. Due to Summenhart’s proclivity to treat issues on an epic scale, the question dealt comprehensively with the appropriate choice of opinions and became the foundation of many early modern treatments of the subject.

Question 100 assumes that some experts on law or moral theology condemn a contract as impermissible and mortally sinful, while other experts consider it permissible and not at all sinful. Such a contract could, for instance, be a complex financial instrument, a financial derivative in modern terminology, that is, a synthetic combination of different types of assets and contracts. The German trading house Fugger used derivatives extensively, and Johannes Eck, a pupil of Summenhart, was one of their counselors.⁹ It was quite common that some moralists considered a financial instrument as usurious and thus impermissible, whereas others accepted it as morally licit. Summenhart posed the question whether a person, who entered into a contract that was subject to such an ongoing controversy, had committed a mortal sin. After meticulously preparing the ground and clarifying the implicit assumptions of the question, he highlighted two issues, both characterized by a sevenfold distinction. (The number seven plays a conspicuous role throughout the “Seven-part work on contracts”). The first issue comprised the conditions under which entering a morally disputed contract was a cardinal sin. These conditions need not be discussed in detail here; suffice it to say that Summenhart restricted the demand of moral risk-aversion to the case of equally balanced doubt as many of his fifteenth-century precursors had already done (see Chapter 1). That is, business persons could engage in controversial contracts which they deemed to be more probably permissible than not, based on the opinions of renowned counselors for business ethics. A second list of seven items pertains to reasons for adhering more to one opinion than to another (*causae adherendi potius uni opinioni quam alteri*). Note that Summenhart in contrast to Major did not unfold these reasons in the traditional way as different aspects of a scholastic answer to a question. He

⁹On Eck, see Bärtsch (2014). The financial derivative in question was the famous ‘triple contract’ (see Noonan 1957: pp.212). It is a financial derivative in modern terminology because it was a synthetic combination of three different types of bonds.

formulated a real checklist for the choice of opinions, and he will therefore receive pride of place here.

Another author who propagated a checklist for the choice of opinions was the famous Spanish theologian and lawyer Martín de Azpilcueta. Azpilcueta, also called Dr. Navarrus, was one of the founding fathers of the Spanish scholastic revival in the sixteenth century. He studied in Alcalá and became a professor of canon law at the University of Salamanca, which he helped turn into the leading center of scholastic learning in Europe. Today, he is probably best known as an economic thinker and (co-)inventor of the so-called quantity theory of money, which claims that inflation is proportional to the amount of money in circulation.¹⁰ In his life and times, however, Dr. Navarrus was better known as a lawyer and moralist, who wrote the first major post-medieval treatise on confessional practice. The ‘Manual or handbook for confessors and penitents’ (*Manuale sive Enchiridion confessoriorum et poenitentium*) was first published in Spanish and later in Latin in 1568. It rapidly became a standard work of reference, superseding older lexica-style handbooks. In his manual, Azpilcueta recommended a sequential ‘funneling’ decision procedure for the choice of an opinion in controversies of mainly moral or legal character. It seems interesting to contrast this list of criteria with Summenhart’s to gain an impression of the variance of respective approaches in the sixteenth century, and specifically before the coming of probabilism.

¹⁰On Azpilcueta and his economic thought, see Grice-Hutchison (1952); Gomez Camacho (1998).

Summenhart's list¹¹	Azpilcueta's list¹²
<p>You should follow authors</p> <p>(1) who are and have regularly been more right in other moral questions [in comparison to other doctors], i.e. who have written more truths and erred less.</p> <p>(2) whose life was morally better or of greater integrity.</p> <p>(3) who have studied the subject matter in question more comprehensively than others.</p> <p>(4) who are less emotionally attached to their opinion than others to theirs.</p> <p>(5) for whose side (<i>ceteris paribus</i>)¹³ a greater number of doctors speak.</p> <p>You might endorse one of two rival opinions</p> <p>(6) if the reasons for one opinion are better and more stringent than for the other.</p>	<p>You should choose opinions as follows</p> <p>(1) Choose a customary and received (<i>consuetudine recepta</i>) opinion, given it does not violate natural or divine law.</p> <p>(2) If no such opinion exists, choose one supported by a text whose opposite, even if it is more common, cannot aptly be defended.</p> <p>(3) Lacking such an opinion, choose one supported by an argument to which an apt response cannot be given.</p> <p>(4) If all this fails, choose a common opinion known as such.</p> <p>(5) If there is no common opinion, choose one for which more grounds and reasons speak.</p> <p>(6) If all the foresaid fails, choose the [generally] most benevolent and favorable opinion.¹⁴</p>

¹¹Summenhart (1580: pp. 561), tract. 7, q. 100: (1) “sunt & fuerunt regulariter in aliis opinionibus moralia respicientibus veriores, ita quod in talibus verius scripserunt, & minus erraverunt”; (2) “sunt & fuerunt regulariter melioris & integrioris vitae”; (3) “plus insuadaverunt in studio talium materiarum, quam doctores alterius opinionis”; (4) “sunt minus praesumendi affectionati ad illam opinionem, quam alii ad suam”; (5) “sunt plures de una opinione quam de alia”; (6) “Si rationes unius opinionis sunt meliores & magis stringentes, quam rationes alterius”; (7) “Si auctoritates sonantes pro una sunt expressiores, vel maiores auctoritatibus sonantibus pro alia”.

¹²Azpilcueta (1593), cap. 27, nn. 285: “Nona medicina est electio bona ex variis opinionibus & quiescere in ea. Electio autem bona sit ... eligendo primo consuetudine receptam, nisi sit contra legem naturalem vel divinam certam ... Secundo cessante consuetudine eligendo eam, quae nititur alicui textui, cui contraria, licet sit communis, nequit apte respondere ... Tertio eligenda eam, quae nititur aliquo argumento, cui apte respondere non potest ... Quarto cessantibus his eligendo communem, si scitur esse talis. Quinto cessante communi eligendo eam, quae pluribus fundamentis & rationis nititur ... Sexto cessantibus praedictis eam quae benignior aut favorabilior fuerit. Septimo praedictis deficientibus illam quae reo favet. Octavo, si nullo modo praedictorum alia opinio aliam superat, illam quam affirmant doctores auctoritate & scientia in materia, de qua agitur praestantiores”.

¹³Summenhart adds a *ceteris paribus* clause to the fifth condition a bit later in the text.

¹⁴ With respect to (6) and (7), Azpilcueta does not explain what distinguishes benevolent and favorable opinions from those that are favorable to the accused. One might imagine that in (6) the good of victims or of a community stands in the foreground, but this is my interpretation.

(7) if the authorities speaking for one opinion are more pronounced or weightier than the authorities speaking for the other.	(7) If the foresaid still fails, choose the opinion most favorable for the accused (<i>quae reo favet</i>). (8) Finally, if still no opinion is superior to others, choose one that is affirmed by the doctors with the best authority and knowledge on the matter at hand.
---	--

Neither Summenhart's nor Azpilcueta's list addressed Henry of Ghent's third issue, the quality of the hearer, probably because their manuals were meant for confessors and counselors of conscience rather than for their clients. Most agents, for instance, merchants, would not possess the required expertise to resolve cases of conscience in their field of activity. Their moral advisors, by contrast, would usually have good academic training in business ethics and in the moral aspects of contract law. Hence, there was no need for caveats concerning the competence of agents.

Summenhart's list is not entirely comparable with Azpilcueta's, because its first five reasons concern the person whom an agent (or his client) desires to follow, and only its latter two the quality of his opinion. In any case, Summenhart's reasons for selecting authors whose opinion one might want to follow could still be accepted by modern social epistemologists. At the fore, we find epistemological reasons, such as propensity to recognize the truth, and psychological characteristics (integrity or emotional control) that are relevant in epistemic ethics. None of Summenhart's conditions resorts to the hierarchical position of a doctor in the Church. Reference to the authority of a scholar in (7) might be thought to allude to such factors. Yet, given the thrust of the other conditions, it seems more appropriate to relate the weight of an author to his intellectual quality rather than to his position in Church and society.

With respect to the choice of opinions, the quality of the reasons for an opinion (that is, its truth) seems to be the most important criterion for Summenhart. Although it is not clear from his own discussion whether the numbering of his criteria documents a hierarchical relationship, the lower position of the criterion of weighted authority on the list might indicate lower importance. In any case, for Summenhart considerations of authority do not

precede those concerning the quality of reasons. Note that John Major, too, had emphasized the role of reasons of good quality for the choice of opinions.

In contrast to Summenhart, Azpilcueta's list of criteria has an explicitly sequential character. A criterion is only to be applied if no preceding criterion suffices to determine the choice of an opinion. Moreover, Azpilcueta's approach is more conservative than Summenhart's, emphasizing the adoption of a received opinion as the foremost best choice, and suggesting choosing a text-based opinion next. Support from good arguments only comes in third thereafter. This demonstrates that there was considerable variance in scholastic recommendations or prescriptions concerning the choice of opinions. Received opinions could be prioritized by scholastic thinkers, but it was also possible to focus on reasons for the truth of opinions. Neither of these recommendations was mandatory for its addressees, who thus retained freedom to prioritize what they considered most apt. Most well-trained moral theologians will have had this freedom, even if we only account for Summenhart's and Azpilcueta's recommendations, since both were prominent authors whose teachings on the use of opinions were amply quoted.

Apparently, much of the difference between Summenhart's and Azpilcueta's list is owed to the distinctly juridical character of the latter's criteria. As he himself acknowledged, Azpilcueta derived his list of considerations from the works of the fifteenth-century lawyer Matteo Mattesilani (active around 1440). Mattesilani had written a short text 'On the election of a truer opinion when there is controversy between doctors' (*Super electione verioris opinionis cum controversia vertitur inter doctores*).¹⁵ Azpilcueta's almost verbatim adoption of an early fifteenth-century source shows that we should hesitate to link it to a historical trend, such as an emergent Counter-Reformation spirit that manifests itself in Azpilcueta's criteria, but not yet in the pre-reformatory considerations of Summenhart. If at all, the distinction is between a markedly legal perspective and one more strongly informed by moral theology. This is not to say, however, that Azpilcueta's list was not adaptable to moral matters; a jurisprudential list of criteria might be considered apt for the 'law court of conscience' (*forum conscientiae*).

¹⁵Mattesilani (1493). Mattesilani's text is bound together with another text by Giovanni Baptista Caccialupi, almost in the form of an appendix. The texts are not paginated, Mattesilani's appears on the last two folio pages.

The low position of merely authoritative opinions is conspicuous in both lists.¹⁶ Opinions with no better pedigree than being held by the best authorities are mentioned last by both Summenhart and Azpilcueta. Moreover, in Summenhart, conditions (5) and (7) seem to stand in a recognizable tension to each other. The difference in weight of authorities disqualifies a simple head count of supporters for each side as a criterion of choice. This explains why Summenhart added a *ceteris-paribus* clause to condition (5), a sign of the longstanding scholastic distrust in mere numbers of experts or authorities. Already in the Middle Ages, Church regulations and scholastic discussions had opted for a qualified rather than a straightforward aggregation of expert votes. The side to be followed was the ‘larger and sounder’ side (*major et sanior pars*), and not simply the larger side. Soundness represented the quality of an authority, and it was assumed that the quality of authorities varied considerably. For Azpilcueta, such considerations only mattered if his first seven criteria were not met. So much for the allegedly unbounded scholastic reverence for authority!

In this respect, it is also worth noting how Azpilcueta phrased a warning against attributing too much weight to the sheer number of authorities. He claimed that the opinion of a multitude of doctors does not amount to a common opinion if they simply followed each other like sheep, proceeding without own judgment, or birds, which simply follow the one that flies ahead.¹⁷ This figurative warning was repeated time and again in early modern textbooks of moral theology, often with explicit reference to Azpilcueta.¹⁸ Scholastics apparently became well aware of the risk that scholars might blindly follow other scholars like sheep, and they warned each other to not fall prey to such imbecility. The many references to Azpilcueta’s warning are proof that sheep-like adherence to authorities was hardly a scholastic ideal.

¹⁶Here a discussion of the low rank of common opinions in Azpilcueta’s list could be added, but discussion of common opinions is bundled in Section 3 below.

¹⁷Azpilcueta (1593), cap. 27, n. 289: “Quartum, quod non videtur una opinio appellanda communis, ad effectum praeiudicandam alteri eo solo, quod plures eam sequuntur tanquam oves aliae alias, quae praecedunt sine iudicio sequentes, velut aves, quae unam volantem aliae omnes sequuntur”.

¹⁸See, e.g., Azor (1602: 82), lib. 2, q. 13; Bresser (1638), lib. 3, cap. 3, n. 32; see also Tutino (2018: 123).

1.2 Juan Azor's (1535–1603) list of scholastic classics

Juan Azor was a Spanish Jesuit, who studied and taught philosophy and theology at the University of Alcalá.¹⁹ In 1579, Azor moved to the Collegio Romano, where he became one of the main authors of the *Ratio studiorum*, thus helping to set the rules for Jesuit education over the next century and half. He also wrote the *Institutiones morales* (1600), the first textbook of moral theology as an emerging subdiscipline.²⁰ Azor was one of the early probabilists in the Jesuit Order. Nevertheless, I will presently not discuss him as a representative of probabilism, but as an author who treated the status of a source as a 'classic' and thus indicative of the eligibility of an opinion.

Azor offered his readers a decision procedure for the choice of opinions which more closely resembled Azpilcueta's than Summenhart's.²¹ It does not seem necessary to provide a detailed description of this procedure, except for the added list of classical authors (*classici*), whose opinions were to be considered probable on account of their authority.²² Writers were classics in Azor's definition if they were prolifically read by others, assiduously interpreted, and had a significant number of academic followers. The functional nature of these criteria deserves to be noted. Classics are not simply venerated intellectual giants of the past, but can be identified through measurable considerations of impact and excellence compatible with the continual formation of new classics over time.

Azor distinguished four separate subject areas (*classes*), each with its own set of classics: theology, canon law, civil law, and cases of conscience (The term 'casuistry' was not yet in use). In other words, Azor listed scholastic classics in subject areas that were relevant for moral theology, the subdiscipline he helped define. In temporal respect, Azor's survey ranges from the year 1140, taken as the rough publishing date of Peter Lombard's *Sentences*, to his own times (or rather, in fact, the 1560s). The year 1140 is thus regarded as the naissance of the scholastic tradition. Azor further subdivided

¹⁹On Azor, see Dziuba (1996).

²⁰Azor's importance as the first author to write a textbook on moral theology as a specific subdiscipline is emphasized by historians of moral theology (see, e.g., Pinckaers 1995). However, although Azor is regularly quoted, I could not find in the sources that he had a significant influence on the direction of the debate on probable opinions.

²¹Azor (1602), lib. 2, cap. 16.

²²Azor (1602), lib. 2, cap. 14, p. 82: "Quoniam in deligendis opinionibus ea habetur sententiae probabilis, quae classici scriptoris, auctorisve testimonio comprobatur: ideo in hoc capite visum est mihi auctores classicos recensere". See also Maryks (2008: 100) for Azor's list. For a classical account of the concept of a classic and classicism, see Curtius (2013), Chap. 14.

the surveyed span of time into four periods: 1140–1300, 1300–1400, 1400–1500, 1500–his day. For modern observers, the first period corresponds to an often assumed ‘golden era’ of scholastic thought, and the last is marked by the flourishing of Iberian scholasticism. It is, however, improbable that Azor’s periodization was guided by such considerations. Like his fellow-Jesuit Roberto Bellarmino, who published an influential century-by-century list of famous ecclesiastical writers, Azor seems to simply have used centuries to give structure to a sequence of authorities.²³ Nevertheless, his list of classics can be used to buttress the received view on the ups and downs of scholastic theology, because the numbers of classics in each period follow a fitting pattern:

Table: Azor’s list of classical scholastic authors

	Theologians	Summists (cases of conscience)	Civil Lawyers	Canon Lawyers
1140–1300	13	7	7	3
1300–1400	11	3	18	12
1400–1500	7	9	26	11
1500–1560	13	5	31	11

The pattern that these numbers reveal seems to confirm the widespread picture of a demise of scholastic theology from its peak between 1140 and 1300 (that is, the ‘golden era’ of the *via antiqua*) until the fifteenth century, together with a subsequent revival in the sixteenth century.²⁴ This is precisely the mainstream historical view that prevailed until recently. Its dubious validity for scholasticism as a whole is documented by the entries for lawyers and casuists. The number of classical civil lawyers, for instance, grew over all periods, and summists/casuists reached their zenith in the fifteenth century, indicating a ‘practical turn’ of scholastic theology in that century. Nevertheless, philosophically informed theology was the scholastic master discipline, and insofar, Azor’s head count conforms to the received narrative

²³See Bellarmino (1675).

²⁴The fact that the first category of classics ranges over 160 years, whereas the next two comprise only one century, seems to alter the statistical picture, but the point is that Azor (and Bellarmino) grouped the pre-1300 scholastics together and thus invited a joint comparison.

of demise and revival. This is not the place to discuss his choice of classics in detail, but a few further remarks may be in order. Many of the best-known scholastic philosopher-theologians today were recorded by Azor. Hence, we encounter Bonaventura, Albert the Great, Aquinas, Henry of Ghent, John Duns Scotus, and William of Ockham. Surprisingly, however, many likely candidates for the status of a classic are missing, such as Roger Bacon, Pierre Olivi, Jean Buridan, or Nicolas Cusanus, to name but a few.

Azor's explicit naming approach to extrinsic probability, originating from a Jesuit who as such was sworn in on Thomism, was remarkably even-handed with respect to medieval schools of theology. This is an important indication that scholastic theologians considered themselves intellectual peers (or in a more medieval spirit, as masters of the same art), regardless of the school or *via* they adhered to. Moreover, the Jesuit Azor omitted Jesuit theologians or casuists from his list, maybe because they were of too recent fame to already have the sustained impact that defined a classic according to Azor's impact-oriented standard.

In any case, what is of most relevance for the present inquiry is that reference to individually listed classical authors precludes an inflationary use of external probability in the confessional, which might arise from reliance on the opinion of every well-trained author in the fields Azor surveyed. A list of authorities was therefore a powerful filter for external probability, and should be related to attempts in the Jesuit Order to safeguard unity of doctrine and to delimit the variance of opinions. Opposition to an (allegedly) excessive variety and novelty in the teachings of Jesuits emerged soon after the order had begun to excel in higher education in the 1540s. Complaints originated not only from Jesuits, who petitioned superiors to reign in other Jesuits, but also from external observers. Hence, the Superior Generals of the Jesuit Order strove to safeguard unity and coherence for obvious reasons, but they also tried to not rock their boat too much. Too extensive preoccupation with the streamlining of opinions might have created an opportunity for intervention by the Inquisition, whose mainly Dominican officers were often not particularly fond of the upcoming, competitive Jesuits.²⁵ Moreover, the success of the Jesuit Order depended on a certain flexibility of doctrine, which allowed Jesuits to adapt to local conditions anywhere on the globe. The slow gestation

²⁵For the complex dealings of Jesuit Superiors and external stakeholder groups with diversity of opinion and belief in the Jesuit Order in the second half of the sixteenth century, see Catto (2009); Mostaccio (2014).

process of the Jesuit *Ratio Studiorum*, which finally regulated teaching after 1599, reflected these pressures. For two decades, Azor took part in the drafting of the *Ratio*. It is not surprising, therefore, that echoes of the *Ratio*'s gestation process can be found in his manual of moral theology. The emphasis he laid, for instance, on relativizing common opinions to provinces, nations, and peoples (*provinciae, nationes, gentes*) reflects successful lobbying of the Jesuit provinces in allowing them to form local compromises.²⁶

Another possible remedy against an excessive variety of opinions were explicit lists of theological propositions to which every Jesuit had to subscribe. Such lists were proposed in discussion papers and draft versions of the *Ratio Studiorum* under the heading of 'choice of opinions' (*delectus opinionum*).²⁷ Most of the listed propositions derived from the works of Aquinas, whom all Jesuits were required to follow. It is, of course, unsurprising that leading Jesuits pushed for a clear-cut corpus of shared propositions to safeguard unity of their doctrine and purpose in their order. This seems fairly normal for a religious order that styled itself along soldierly lines. The point to emphasize, however, is that this strategy failed. Influential Jesuits defended a considerable internal pluralism of opinion as indispensable for the success of the main projects of their order. It is, indeed, hardly conceivable that the Jesuits could have attracted the best academic teachers without giving them some leeway of thought. Roberto Bellarmino, today often regarded as an enemy of freedom of thought (not least due to his involvement in the trial of Giordano Bruno), opposed rigid guardrails for the choice of opinions with his considerable authority.²⁸ Long lists of distinct philosophical and theological propositions, which every Jesuit had to pledge to adhere to, were thus not included in the *Ratio Studiorum*. Moreover, although all Jesuits were expected to follow Aquinas, his doctrines could be deviated from for solid reasons – and it was not specified what these reasons might be. Hence, even a conservative document such as the *Ratio Studiorum*, which aimed to induce uniformity in teaching, allowed for a significant breadth of opinions in philosophy and theology. Jesuits surely appreciated Aristotle and Aquinas, and promised to not polemicize against them, but considerable elbow-room for innovative interpretations was otherwise available.

²⁶See Azor (1602: 82), lib. 2, cap. 13 and Lukacs (1999: 34, 45) for the provinces' objections.

²⁷See Lukacs (1986, 1999). Lukacs (1999) is a summary of the commentary part of Lukacs (1986).

²⁸See Lukacs (1986: 11*, 14*, 23*).

In light of these considerations, Azor's list of classics appears as a remnant of failed attempts to induce unity in the Jesuit Order by explicitly stating what and whom one should believe. Had this list become a standard tool of reference among moral theologians, it would have foreclosed the inflationary use of external opinions by casuists, which was so forcefully criticized by opponents in the second half of the seventeenth century. In fact, however, Azor did not start a trend with his list of authorities.²⁹ Neither probabilists nor anti-probabilists used lists of specific authors to a notable extent to assess extrinsic probability. Miguel de Elizalde (1617–1678), a major anti-probabilist, even tried to show that it was methodologically unsound to generate a definitive list of 'grave' (*gravis*) authors.³⁰ We will discuss this claim at a later point, when we take a closer look at Elizalde (Chapter 8.3.2).

2. Sets of criteria from the seventeenth century

Sets of criteria and sequential selection procedures for the choice of authorities and opinions can also be found in the seventeenth century, although many casuists and moral theologians apparently saw no need to supply such tools to their readers. Surprisingly, only few matrices of criteria are to be found in practical handbooks of casuistry, a genre we might expect to be particularly prone to using sequential selection procedures. Generally, the flexibility that probabilism offered for the choice of opinions seems to have rendered an approach via checklists moot. A notable exception to this apparent trend are checklists for the quality of authors. These increased in importance due to the probabilist claim that an opinion of a single competent expert could be probable, even in opposition to a large number of equally qualified colleagues. (On this postulate of stand-alone authority, see Chapter 6). Anti-probabilists accepted this claim at best for a few exceptional thinkers, such as Aquinas. For other authors who stood alone, probability was granted only if their opinions were not controversial. Moreover, anti-probabilists were not the only ones to oppose stand-alone authority in controversies. Moderate probabilists also strove to limit this kind of authority, often reducing the *prima facie*

²⁹Of the next generation of Jesuit moral theologians after Azor, Vincenzo Filliucci (the German cartoonist Wilhelm Busch's 'Father Filucius') emphasized the authority of the classics (see the preface of Filliucci 1629), but did not adopt such a list in the body of the book.

³⁰Elizalde (1670), lib. 2, §3, p. 69.

probability of a single author's opinion to cases in which no controversy existed. Moderate probabilists and anti-probabilists alike sometimes buttressed such considerations with lists of criteria for the qualities of authors, whose opinions could *prima facie* be regarded as probable. Such lists tell us a lot about the aspired quality of sources in fully developed scholastic social epistemology. For this reason, we will compare two sets of criteria, one from the probabilist Martin Bresser (1584–1635), and the other from the anti-probabilist Prospero Fagnani (1588–1678).

Martin Bresser was a Flemish Jesuit theologian of far less prominence than the authors discussed so far in this chapter. He is included here for the sole reason that his *De conscientia libri sex*, a comprehensive treatise on conscience, appeared in 1638, at the height of the boom of Baroque casuistry, comprising many of the innovations that had accumulated by that time. It is also worth mentioning that Bresser was a moderate probabilist. Prospero Fagnani, by contrast, is known as one of the first prominent anti-probabilists. A canon lawyer by profession and an influential member of the Roman curia, he was asked by Pope Alexander VII to write against probabilism, or at least against its extreme versions. Fagnani complied with this request in the first volume of his elephantine *Commentaria in quinque libros decretalium* (1661). Here is what Bresser and Fagnani demanded of a source whose opinions were to be considered probable.

Bresser's list ³¹	Fagnani's list ³²
<p>A source we can <i>prima facie</i> believe:</p> <p>(1) should regard the proposition we are considering to adopt as true and not only as probable.</p> <p>(2) should pass judgment in all seriousness and only after having weighed all given reasons.</p> <p>(3) should put forward an uncontested proposition (otherwise complications arise, which are discussed in Chapter 6).</p>	<p>A single source has authority if:</p> <p>(1) The doctor is experienced in moral matters and has an apprehensive (or risk sensitive, <i>timorata</i>) conscience.</p> <p>(2) The examined opinion is motivated by weighty (<i>non levis</i>) reasons for its truth. (Authority without reasons has no probability, as Fagnani added.)</p>

³¹Bresser (1638), lib. 3, cap. 3, n. 28–41.

³²Fagnani (1765), n. 448.

<p>(4) should not blindly follow a majority opinion.</p> <p>(5) should be competent, with a possible distinction between absolute and relative (i.e. contextual) competence.</p> <p>(6) should not be driven by emotions.</p> <p>(7) should not have a reputation for rash judgment.</p>	<p>(3) The opinion in question contains no error against the laws of God and the Church.</p> <p>(4) It is not against the common opinion of others, unless the singular opinion is more true (<i>verior</i>).</p> <p>(5) The opinion of the single doctor is not opposed to an equally probable opinion, that is, the opinion of a doctor of equal authority.</p> <p>(6) The counter-opinion is not more probable.</p>
--	--

In both lists, probability is only ascribed to a source's opinion that is not contested by the counter-opinion of an at least equally qualified opponent (see entries (3) and (5)). If the opposite was the case, probability ascriptions became more difficult, which is not to say that they necessarily had to be denied in final consideration. Probabilists like Bresser and anti-probabilists like Fagnani applied different criteria for judging such more complicated cases (see Chapter 6). Presently, however, we are only concerned with more straightforward cases, in which probability could *prima facie* be ascribed without the need to account for the problems of expert disagreement.

At first glance, Bresser's list is guided by epistemological rather than by theological considerations. By contrast, Fagnani's has a clear theological bent. However, this apparent difference may be spurious, because Bresser had already dealt with theological issues in a preamble that excluded heretic opinions from consideration before embarking on the analysis of probability. The exclusion of heretical opinions from the status of probability was common in Catholic moral theology.³³ Nevertheless, it is conspicuous that within the domain of the probable, most of Bresser's criteria focus on the character of a source, and especially its epistemic dispositions or virtues.

Bresser's first point seems more puzzling. Why should we care whether a source regards its own opinion as true rather than as probable? Probability is a weaker claim than truth. Bresser apparently assumed that if an expert's

³³Bresser (1638), lib. 3, cap. 2, n. 18.

assertion of truth for a proposition creates probability, a mere assertion of probability achieves less, and hence does not render the truth of the respective proposition probable. An independent second assertion of a proposition's probability mended this fault in Bresser's eyes. He did not supply an explanation why precisely two such assertions suffice, but his assumption follows the standard rule for the accumulation of testimony in scholastic legal practice. Two independent concurring (and unopposed) witness statements rendered a claim beliefworthy in law.³⁴

Nowhere in his list of criteria does Bresser make reference to the role of classical authors. Bresser did not per se regard classical authors as superior to those who wrote after them, because opinions (even classical ones) could already become outdated within a short period of time (*paulo post*) on account of new arguments and evidence. Success as a teacher, as recognized by a university faculty, approved publications, or equivalent achievements also appeared insufficient for Bresser as a necessary quality requirement.³⁵ Public teaching or good publications indicate but do not constitute competence. Moreover, academic practice allowed for other ways of documenting competence.³⁶ Some scholars valued competence in resolving cases of conscience in direct consultation (*viva voce*) more than they did assiduity in producing collections of cases. In live debates, the latest reasons and counter-reasons for an opinion could be accounted for, while they were often not yet to be found in printed sources. On the other hand, publications allowed for deeper study and greater premeditation. For these reasons, neither acclaimed publications nor oral performances were straightforwardly superior to one

³⁴Bresser (1638), lib. 3, cap. 3, n. 28: "Ex eo videtur sequi, non sufficere ad probabilitatem opinionis auctoritatem unius viri pii & docti asserentis eam tantum probabilem; sed eo casu requiri auctoritatem saltem duorum, qui videlicet dicant eam probabilem".

³⁵Bresser (1638), lib. 3, cap. 3, n. 34: "Ut quis opinionem reddat probabilem, absolute debet esse actu vel potentia probatus doctor, id est, cum approbatione facultatem aliquam publice docuisse, aut calamo & impressis libris, vel saltem judicari ad id idoneus". It should be noted that approbation did not only speak for orthodoxy but conveyed a quality signal in the Jesuit Order to which Bresser belonged. Censors had the task of preventing mediocre scholarship from being published and, in fact, often assumed a similar role as modern reviewers of journals or publishers.

³⁶Bresser (1638: 274), n. 34: "Alias nullius, quantumvis docti, auctoritas sufficeret, nisi jam editis libris clarus in scholis citari soleret: quod nec est rationabile, cum libri vel professio publica non augeant, sed supponant doctrinam; nec conforme menti doctorum, qui supponunt passim resolutiones casuum probabiles reddi vivae vocis oraculo, seu responso unius viri docti, etiam respectu doctorum. Imo aliqui praeferunt vivae vocis oracula responsionibus impressis. Quae duo tamen habent se tamquam excedens & excessum: nam ex una parte responsio impressa supponitur profecta a majori studio ac praemeditatione: ex altera parte, vivus doctor jam deregere potest novam circumstantiam, rationem, auctoritatem, canonem vel legem, quae latuerit mortuum, vel scriptorem dum scripsit".

another as warrants of a moral theologian's competence. In some important respects, the one is better, and in others, the other is (*habent se tamquam excedens et excessum*). There is thus no best methodology in general for determining the competence of a moral theologian or casuist, so that respective assessments ought to be sensitive to context.

Besides providing criteria for the discernment of good sources, Bresser also discussed the kind and amount of diligence that learned and not so learned persons had to exercise when choosing an opinion.³⁷ The learned (for the not so learned *illiterati*, see Section 4 below) must consider issues of great significance more thoroughly than those of lesser importance. Nobody should be afraid of spending time on deliberations before resolving a case of conscience. On the other hand, in matters that did not allow for delay, everybody might respond offhand and as circumstances permitted (*ex tempore*). Finally, if a learned person wished to form a probable conscience (that is, a reasonable moral judgment) against a common opinion, he had to ponder his reasons very diligently. In matters of faith, the person in question should regard his final opinion as safe and manifest; in other matters, he should regard his final opinion at least as clear and convincing (*praegnans et efficax*) before opposing common opinions.

Bresser's admonitions demonstrate once more that scholastic social epistemology did not blindly trust authority. Its permissions to follow the opinions of others were based on guidelines that attempted to safeguard epistemic quality. Lack of diligence in the choice of opinions was considered temerarious and sinful. The sketched demands of diligence are thus proof of an elaborate epistemic ethics, in which both epistemic duties and epistemic virtues played major roles.

Fagnani's criteria for the quality of a source display more of a mix of epistemological and theological considerations than Bresser's. His call for experience is combined with a demand for a risk-sensitive or 'fearful' (*timorata*) conscience. This should be understood as excluding theologians with a too robust and thus 'too wide' (*nimis lata*) conscience, who downplay the risks of sinning in human affairs. While such a restriction can still be considered moral rather than theological, Fagnani also reminds his readers that an acceptable opinion must be free of errors with respect to the laws of God and the Church. This is, of course, more a matter of emphasis than a

³⁷Bresser (1638), lib. 3, cap. 4: "Quae diligentia adhibenda sit in delectu opinionis probabilis doctis & indoctis". The following paraphrases are from n. 45, 46, 48, 49, and 51 of cap. 4.

difference to probabilist norms, which also disavowed theological opinions that were clearly recognizable as erroneous. In combination with his call for a fearful conscience, however, Fagnani's reference to error amounts to an admonition to already reject opinions that engender a significant risk of theological error. Probabilists were typically more sanguine in this respect, yet Fagnani explicitly precludes probabilism through criterion (6). He demands rejection of an opinion, which one regards as less probable than a counter-opinion. That is, Fagnani and Bresser differ in their fundamental understanding of practical rationality with respect to selection criteria for eligible sources and opinions. For the rest, Fagnani's criteria show that anti-probabilists also warned against blind trust in authority, because authority needed to be rooted in reasons for the truth of an opinion. Common opinions could be overruled if the opposite should be considered 'more true' (*verior*), even though only a single author defended it (criterion 4). This seems to be a surprising concession, because in criterion (5), Fagnani inveighs against accepting the opinion of a single author who disagrees with an equally qualified opponent. Is not disagreement with a common opinion an even stronger reason to shun an opinion? The point to recognize here is that in (5) an equal balance of reasons is assumed, while in (4) more verisimilitude and thus better reasons are ascribed to the side that stands against the common opinion. To better understand why common opinions had such a low status in Fagnani's account (and already in Azpilcueta), we will now look at the concept of common opinion and its evolution in scholastic theology in more detail.

3. *Common opinion*

Many moral theologians of the sixteenth century guardedly permitted deviance from common opinions, and echoes of this established view can be found in anti-probabilist writings, such as Fagnani's. It therefore seems worthwhile to take a closer look at the concept of common opinion and its demise as a guiding factor for action in seventeenth-century moral theology.

Common opinion, or 'the common opinion of doctors' (*communis opinio doctorum*), was (and is) a legal term denoting a predominant or general professional opinion in jurisprudence. This legal background usually

remained recognizable in theological uses of the term. In his confessors' handbook, Silvester Mazzolini de Prierio quoted the *Glossa* of jurists as a source for the view that the common opinion is to be followed where doctors cannot agree, because in doubtful cases, one should stick to the majority opinion.³⁸ However, as discussed in Chapter 1, this was not the general rule he advocated for conditions of doubt. John Major also applied the standard of common opinion in theological matters, writing that a prudent person should always (*ceteris paribus*, as I understand Major) follow the common opinion of the wise in matters of faith and morality.³⁹ That is, if there are two opinions of which no more is known than that one is common and the other is not, we should follow the common opinion. A known prevalence of reasons of truth for a not common opinion might justify a different approach. As expounded above, Martín de Azpilcueta, prompted by the jurist Matteo Mattesilani, called on his readers to follow common opinion, but only if three stronger criteria did not apply.

Following the rise of probabilism, the moderate normative strength of the role of common opinions diminished further. Many probabilists insisted that competent agents could rather freely deviate from common opinions, even against the opposition of others. This loss of normative import in moral theology deserves to be noted, because it antedates the demise of common opinion as a core concept in modern law, which is usually linked to the Enlightenment critique of authoritative opinions.⁴⁰ Yet it was not only the normative power of common opinion that shrank. The notion of common opinion in moral theology also changed, becoming less a term for a dominant, shared opinion than for merely a group opinion. (I am not competent to judge whether a parallel process occurred in scholastic jurisprudence). The groups in question could potentially be as small as a handful of scholars. This development needs to be taken into account when discussing seventeenth-century theological attitudes towards common opinions. At the height of the debate on probable opinions, even a demand to follow a common opinion thus hardly restricted the scope of eligible opinions.

³⁸Mazzolini (1569: 248), verbum 'opinio': "Etsi concordari non possunt, communis opinio sequenda est, quia in causa dubii pro multitudine praesumendum est" (*Glossa* in c. fi. de poe. dist).

³⁹Major (1516), prologus, q. 2, concl. 5: "Prudens debet sequi communem opinionem sapientium, tam in materia fidei quam morum, potius quam paucorum".

⁴⁰See, e.g., Mecke (2009: 415).

In medieval jurisprudence, a common opinion was characterized by the approval of many or of a majority of high-ranking legal scholars (*a pluribus approbata*).⁴¹ The relevant Latin terms in this respect were *plures* ('many' or 'majority') and *multitudo* ('multitude'). Different interpretations of these terms offered some leeway for a variety of views what a common opinion might be: a majority opinion or merely a widely held opinion. For Mazzolini, who explicitly referred to a 'multitude' of scholars, a common opinion seems to have been a generally held opinion, although this generality might be understood as allowing for some dissidence. John Major indicated a similar view by contrasting the common opinion of the wise with the views of 'a few' (*paucorum*). Melchor Cano considered it sinfully rash to contradict the common opinion of all scholastics in grave matters.⁴² He contrasted the common opinion of all to opinions doctors disagreed with. A presumption of general acceptance also pervaded many extra-legal or extra-theological uses of the term common opinion. Cypriano Soares, for instance, stated in his *De arte rhetorica* that the common opinion of mankind (*communis opinio hominum*) renders an assertion certain.⁴³ The common opinion of mankind seems here to be an opinion shared by all humans.

However, the medieval tendency to qualify majorities by accounting for the weight of authorities loosened the nexus between common opinion and generality of acceptance. It led to a notion of common opinion that combined weight and numbers, and therefore identified it with the opinion of the 'larger and sounder part' (*major et sanior pars*) of a community of competent evaluators, which might well be the numerically smaller part. Martín de Azpilcueta, who became an anchor for many respective statements, explicitly warned that a common opinion was to be determined not by numbers, but according to the weight of authority.⁴⁴ Juan Azor concurred, explaining that a common opinion depended on numbers and authority, but not on numbers alone.⁴⁵ Azor, moreover, offered a differentiated account of the role of commonness in guiding the choice of opinions. He agreed with Mattesilani

⁴¹See Panormitanus (2008: 15), tom. 1.

⁴²Cano (1574), lib. 8, cap. 4, concl. 2: "Ex auctorum omnium scholasticorum communi sententia in re quidem gravi, usque adeo probabilia sumuntur argumenta, ut illis refragari temerarium sit". Major (1516), prol., concl. 5; Mazzolini (1569: 248), verbum 'opinio'.

⁴³Soares (1668: 60), cap. 16.

⁴⁴Azpilcueta (1593: 1040), cap. 27, n. 289: "Opinio enim communis non ex numero opinantium, sed ex pondere auctoritatis fit".

⁴⁵Azor (1602: 82), tom. 1, lib. 1, cap. 13: "Si roges, an communis opinio existimari, & intelligi debeat ex numero, an potius ex auctoritate opinantium. Respondeo, ut plurimum ex numero & auctoritate opinantium esse iudicandum, non autem ex solo numero auctorum".

and Azpilcueta in de-prioritizing common opinions in the rank order of the respective guidelines. Commonness only ought to be preferred if more important considerations did not apply. Second, Azor relativized common opinions. In theology, only the common opinion of theologians mattered; in law, it was the common opinion of jurists, and in other arts, the common opinions of its masters. (This reflected the medieval instruction that an expert is to be followed in his specific art only). Yet Azor also relativized common opinions according to provinces, nations and peoples where they prevailed. Different cultures, subcultures, and communities, as we would say today, could hold their specific common opinions which conflicted with those of others. For Azor, common opinions possessed normative force only for the communities in which they were common. This view reflected the discussions in the Jesuit Order on the formulation of a unitary *Ratio Studiorum*.⁴⁶ The Jesuit provinces, as indicated above, successfully fought against a general central regulation of opinions. They defended their particular common views against those of the Roman headquarters or the common opinions of other provinces. The Jesuits could only thus adapt to different cultures, assimilating Chinese religious practices in China and Indian modes of governance in South America. At the same time, of course, acceptance of cultural and local variation thwarted any strong normative guiding role of common opinions.

A second parallel development was the specification of a minimum number of authoritative supporters for rendering an opinion common. Azpilcueta again set the pace in this respect. For the commonness of an opinion, he required the votes of six or seven classical authors, who *ex professo* dealt with an issue, or otherwise eight or ten notable and judicious authors, who need not all be classics. (Classics apparently did not have much more weight for Azpilcueta than other good experts). Later authors often explicitly quoted Azpilcueta when devising a threshold of cumulative authority for common opinions. Gabriel Vazquez, for instance, adopted Azpilcueta's standard, but without insisting that the six or seven authorities in question had to be classics.⁴⁷ Francesco Bardi proposed five authors to render an opinion common, and Louis de Schildere claimed that six, seven, or eight supporting classics were required for a common opinion, but called for more authors if they were not classics.⁴⁸ These specifications, as similar as they

⁴⁶See Lukacs (1986).

⁴⁷Vazquez (1606), disp. 62, cap. 2, n. 5.

⁴⁸Bardi (1650), disc. 4, cap. 2, n. 2, p. 130; Schildere (1664), tract. 2, cap. 1, n. 13.

might appear, had significantly different implications for the role of common opinions in Catholic moral theology, depending on the period in which they were published. When Azpilcueta wrote his works around 1550, the number of eligible authors for forming a common opinion in moral theology was still quite small. As mentioned above, Azor includes thirteen theologians, five casuists ('summists'), and eleven canon lawyers among his (near) contemporaries as classics. The total number of classics in theology, casuistry, and canon law since the year 1140 was 44, 24, and 37, respectively. Not all of them dealt with the same questions. A common opinion by Azpilcueta's standards would hence require the support at least of a significant percentage of the classical authors in one of the respective fields.⁴⁹ By contrast, hundreds of contemporary moral theologians and casuists were listed as probabilists around 1650. These 'authorities' (in the sense of experts of moral theology) often addressed a very broad range of issues in their writings. Hence, Azpilcueta's threshold, which was more or less adopted unaltered by Bardi or De Schildere, except for a toned-down reference to classics, guaranteed at best that a common opinion by 1650 was the opinion of a tiny percentage of a community of experts. In no way did it ensure that the group, for which the opinion was common, formed a significant minority relative to the entire community of competent moral theologians.

Some authors, in fact, explicitly understood common opinion as a mere group opinion. De Schildere stated that the opposite of a common opinion was a singular opinion.⁵⁰ The opposition here was between the opinion of a single person and that of a collective large enough to count as a group. The whole issue was more clearly explained by Antonio Casnedi, who asserted that any opinion with a plurality (*plures*) of authors on its side was called common, hence, the term 'common' was opposed to 'singular' (*singularis*).⁵¹ Casnedi pointed out that as a result, each of two rivaling positions was often common, a point Bardi had made as well.

The resulting proliferation of simultaneously held, antagonistic common opinions weakened the normative import of common opinions.

⁴⁹Bellarmino (1675) only lists twelve casuists for the whole period.

⁵⁰Schildere (1664), tract. 2, cap. 1, n. 13. See also Sanchez (1614), lib. 1, cap. 9, n. 9 where singular and common opinions are opposed, but the opposition is not treated as conceptual.

⁵¹Casnedi (1711: 79), d. 3, n. 32: "Porro notandum est, quod utraque contradictoria saepe potest communis, quia ... omnis opinio quae plures pro se authores habet dicitur communis ... ideo vox 'communis' adversatur voci 'singularis', non voci 'communior'". Note that Casnedi was a probabilist and de Schildere an anti-probabilist. Acceptance of the opposition singular/common is therefore apparently not peculiar to only one side in the debate on probabilism.

Probabilists found it easy to argue that common opinions, qua mere group opinions, did not bind competent evaluators. It had, of course, already been admitted by medieval jurists that a more probable opinion might be preferred to a common opinion, in particular if the common opinion stood at risk of being outdated.⁵² Yet in the Middle Ages, a presumption existed, albeit a defeasible one, that the common opinion was the most probable opinion. The particularization of common opinions in the wake of probabilism into the opinions of tiny groups destroyed the grounds for this presumption.

4. Ordinary persons and non-experts (*illiterati, idiotae*)

We have so far discussed the quality of authors and opinions, but the equally important issue of the quality of users of opinions has not yet been touched upon. The main scholastic distinction in this respect—already highlighted by Henry of Ghent (c.1217–1293)—was between ‘literate’ and ‘illiterate’ agents. Henry referred to *litterati* as persons who were able to judge determinations, that is, magisterial answers to problems, and contrasted them with ordinary or simple people (*simplices*) who ought to believe others.⁵³ This basic distinction remained in force with some variations in scholastic approaches to the choice of opinions. After the introduction of the distinction between intrinsic and extrinsic probability in the late sixteenth century, intrinsic assessment was mainly restricted to agents who were competent to weigh legal, moral, or theological reasons, whereas simple or ‘illiterate’ (*illiterati*) agents could and should seek guidance from competent others and thus follow extrinsic probability.⁵⁴

Neither for Henry of Ghent nor for later scholastics was the distinction *litterati/illiterati* between those who could and those who could not read, or

⁵²See Panormitanus (2008: 15), tom. 1.

⁵³Henry of Ghent (1518), q. 33, fol. 148: [third condition] “conditio auditorum: an litterati, potentes discernere determinationes; an simplices quos oportet alteri parti credere”.

⁵⁴In humanist and quotidian usage, the word *illiteratus* could simply mean that a person was not sufficiently educated to understand Latin well. Competence in Latin was, of course, a requirement to follow the debates of medieval or early modern moral theologians. But in the present context, *illiteratus* should be assumed to indicate more than that, namely an inability to competently assess or at least understand the positions and outcomes of the debates in question. For this, even first rate Latin skills were not enough. Grundmann (1978) offers a broad overview of the use of *lit(t)eratus* and *illit(t)eratus* in antiquity and Middle Ages, showing how the meaning of these terms could vary with their context. Unfortunately, Grundmann does not distinguish between usage in scholastic and other medieval texts.

between people with basic education and others. A *litteratus* in the sense employed by Henry of Ghent was a person capable of making scholastic determinations, and thus a person with at least an academic degree in the respective field. If the ‘literate’ agent was not an expert himself, he at least needed to be able to judge the performance of experts, given he had sufficient time to inspect the expert’s arguments. Anybody who could not accomplish this was an *illiteratus*. Hence, not only uneducated peasants or menial workers were considered ‘illiterate’ with respect to moral choices, but also most of the nobility, medical doctors, or merchants. These groups were often mentioned in confessors’ manuals as being dependent on extrinsic probability, because they were unable—or not trustworthy—to solve the moral problems arising from their professional activities without aid. (The nobility’s profession until the modern era was primarily warfare). The scholastic advice to them was “Do not try to solve intricate problems of practical ethics, unless you are trained to do so. Ask a theologian or lawyer, who ought to know”. One key problem with this recommendation was, of course, that ‘ought to know’ does not imply ‘know’, and not all clerics were trained practical ethicists – but we will come to that. It deserves mention that moral theologians and lawyers competed for competence in the field of God’s laws. Theologians fought hard to achieve superiority in matters pertaining to ‘the court of conscience’, that is, moral issues. Lawyers held their ground with respect to the repercussion of moral issues on litigation in courts of law (*in foro externo*) or institutional implications for the Church. A distinction between the areas of moral expertise of theologians and lawyers was often explicitly made in handbooks of confessors. This is not to say, however, that there was universal agreement on a division of labor. The adjudication of natural law remained a disputed field between theologians and lawyers. Depending on the problem at hand, theologians or lawyers could thus be *litterati* or *illiterati* with reference to the others’ field of expertise.

In fact, the semantic field for distinguishing between competent and insufficiently competent users of opinions was much wider than indicated so far. I have favored the *litterati/illiterati* distinction to present an outline of the scholastic differential treatment of users of probable opinions. There were, however, many other terms with which the distinction in question was made. Henry of Ghent addressed ‘the simple ones’ (*simplices*), and others spoke of *rudes* (‘the raw ones’), but reference was also made to *idiotae* (‘the uninitiated’), *ignorantes* or *ignari* (‘the uninformed’), *imperiti* (‘the inexperienced’), or *indocti*

(‘the not-learned’). The connotations of these predicates differ widely, and we should ask whether the differences in meaning are mirrored in the treatment of such classified persons in confessors’ handbooks. To the best of my knowledge, nobody has so far analyzed this issue in detail. To judge by my own knowledge of sources, the different terms do not represent systematic differences in approach. Discussions of the regulations for *illiterati* (or *simplices, rudes*, etc.) are usually brief and amount to only a few lines of text in confessors’ handbooks. Moreover, in contrast to other distinctions, which had received scant attention in the Middle Ages but were analyzed at considerable length in the seventeenth century, the boundary between competent and incompetent agents remained a backwater.

One reason for this comparative neglect was probably the impossibility of establishing a clear boundary between competent and incompetent reasoners, independent of circumstances and context. Moral theologians agreed that a person had the duty of information gathering and processing, the extent of which depended on the person’s competence, resources, and, last but not least, the prevailing circumstances.⁵⁵ No context-independent distinction of competence could thus be made between the morally literate and others. There were, of course, some general requirements of adequate consideration and epistemic diligence. Before acting in morally problematic contexts, every agent had to consider the problem to the best of his or her ability in specific circumstances. If the person was aware (or ought to be aware) of her insufficient competence to do so, and if more competent and/or better informed persons were at hand, the agent ought to ask these persons for advice. Given a large enough difference in competence, the agent ought to follow the opinion of a more competent advisor. If more than one advisor was available, a problem of choice arose for which different moral theologians suggested different solutions. However, all these requirements depended on the given context for their interpretation. Availability, for instance, is a malleable concept. Agents had to undertake a reasonable effort to approach a suitable person for advice, but the required effort varied with the given resources and prevailing circumstances.

This procedure sounds both vague and complicated at the same time, but in practice, it often amounted to simply asking the local priest (*parochus*), one’s confessor (*confessarius*), or an available competent moral expert for

⁵⁵See Sanchez (1614), lib. 1, cap. 9, n. 8.

advice.⁵⁶ Poor and uneducated persons living in small communities hardly had any other option but to ask their local priest for advice. Given the disastrous state of clerical training before the seventeenth century, most priests lacked even rudimentary training in dealing with cases of conscience. Things changed for the better in the seventeenth century, but to what extent is disputable.⁵⁷ In any case, moral theologians were aware of problems with the quality of religious and moral advice. The French probabilist Honoré Fabri (1608–1688) explicitly distinguished between the information-related duties of illiterate persons living in towns with a bishop or a cathedral school, and others who lived in small places and villages (*pagis et villis*).⁵⁸ The former could obtain information from an appropriate source commissioned to interpret Catholic truth. For them, it did not suffice to ask their local parish priest whenever they could instead listen to a bishop or submit their case to the practical ethicists of a cathedral school. In fact, the upper strata of premodern societies often commissioned lawyers or theologians to provide written moral counsel on a planned but problematic course of action, or they asked for ex-post justifications of what they had done. Merchants made much use of this option, attaining ‘moral insurance’ through the expert opinion of renowned business ethicists. The Medici, the Fuggers, and their like employed the best and brightest moral theologians and lawyers of their time to justify their financial practices. Bishop Antonino of Florence, a future saint, was a friend of Cosimo de’ Medici (the Elder), and his economic ethics ensured the economic success of Florence or the Medici would not be stifled.⁵⁹ On the other end of the spectrum, the chances of an agent to have a high-class advocate pleading for him or her with ecclesiastical guardians of the ‘court of conscience’ decreased rapidly with remoteness from cultural centers and with lack of power or financial means. For most ordinary agents, who had their own pressing moral problems as the literature on cases of conscience documents, a parish priest had to do. In final consideration, Catholic moral

⁵⁶See Gonet (1700: 228), Vol 3, n. 72: “homo simplex & ignarus ... debet consulere parochus, confessarius, aut alius vir doctus et probus”.

⁵⁷See, e.g., Foster (2001); Hersche (2006: pp. 177), Vol. 1; Po Hsia (2005).

⁵⁸Fabri (1670: 84), dial. 4.

⁵⁹On the complex relationship between Antonino and the Medici, see Kent (2000: pp. 174); Morçay (1914: pp. 105); Orlandi (1959), Vol. 1. On Antonino’s economic thought, see also Schuessler (2010).

theologians deemed it better for ordinary people to accept the wrong opinion of a parish priest than to risk erring on their own.⁶⁰

An alternative was to choose the safest opinion, but this course of action was not mandatory. Gabriel Vazquez, for instance, offered several options for an ordinary person's moral choice.⁶¹ A non-expert in moral theology could simply stick to the safest alternative, following the medieval rule 'In doubt, the safer side is to be chosen'. This rule was adequate, because the person in virtue of his or her lack of judgment ought to be in doubt about what to do. However, the person in question had to then at least be able to identify the safer side. (Remember that 'safer' here means possessing less gravity of sin). For this and other reasons, Vazquez and many others did not strictly prescribe risk aversion for the less knowledgeable. Many authors followed John Major and Antonio de Cordoba, who allowed non-experts to choose between allegiance to a competent guide or opting for the safer side.⁶² It was also discussed whether non-experts should, where possible, follow a common opinion which was the opinion of the 'better and greater part' (*sanior et major pars*) of experts. To conclude, Vazquez did not regard such restrictions as necessary. Renowned theologians, such as Henry of Ghent, Konrad Summenhart, and Silvester Mazzolini de Prierio, had always deemed it sufficient for *illiterati* to simply follow a knowledgeable advisor. Given the risks of letting incompetent persons assess the comparative safety of opinions, this was apparently the most feasible norm. The main argument for letting ordinary persons follow any competent guide was, however, another. If a theologian was *prima facie* entitled to follow the opinion of a more learned colleague against a safer or common solution—as he clearly was according to the mainstream view of Catholic moral theology since the Middle Ages—why not also an *illiteratus*?⁶³ If a theologian, who was able to judge matters of conscience, was entitled to follow the guidance of some expert, this should a *fortiori* also be legitimate for persons with less competence than the theologian in question. The follower should, of course, be reasonably confident about the approached expert's competence and probity, or had to be in a position in which no better advisor was available. Yet under these

⁶⁰See Fabri (1670: 84), dial. 4: "Homo illiteratus tenetur credere suo parochio, etiam falsam doctrinam proponenti".

⁶¹Vazquez (1606), disp. 62, cap. 8.

⁶²Major (1516), prol., q. 2, contra 3. conclusio; Cordoba (1604), lib. 2, q. 3, 4.

⁶³See Vazquez (1606), disp. 62, cap. 8.

restrictions, it seemed reasonable for an *illiteratus* to not be more bound to risk aversion or common opinion than a trained theologian.

This, then, was the regulation that most probabilists upheld in the seventeenth century. It meant that ordinary persons could follow any externally probable opinion of an expert, even if an opposite opinion might have appeared more probable to learned observers. The ordinary person who simply followed competent advice without being able to judge matters of probability thus relied on a simplified version of probabilism – or rather, did not need to invoke probabilism at all. Unsurprisingly, therefore, probabilists did not deal with the choices of ordinary persons in depth. Nevertheless, they sometimes added a caveat. It did not suffice for *illiterati* to read the opinion of a renowned moral theologian or casuist in a book to be *prima facie* entitled to follow it.⁶⁴ The caveat again shows that ‘illiterate’ should not be understood literally. *Illiterati* in the sense of the present discussion need not be completely illiterate, otherwise they could not read books on moral opinions. To do so, they would usually have to know Latin, although some confessors’ handbooks were published in the vernacular. For a person to be an *illiteratus* in the presently relevant sense, an inability to competently judge the content of a casuistical handbook was crucial. There was hence a risk that such readers did not correctly understand a published opinion or did not know how to apply it to a new case.⁶⁵ Consequently, hearsay or reading about opinions was not an appropriate substitute for seeking the actual counsel of a competent person.

The issue of *illiterati* and their choices of opinion did not become a major point of controversy in the great debate on probable opinions in the second half of the seventeenth century. There is an extended treatment of the issue in Agostino de Angelis’ *De recto usu opinionis probabilis* (1667). The anti-probabilist De Angelis discussed the options of choosing the safer side or sticking to a common opinion, but did not embrace them. He instead favored the traditional rule that an ordinary person should follow her parish priest or a (theological) doctor, even if these advisors erred. De Angelis emphasized the possessive pronoun in this counselling relationship.⁶⁶ An ordinary person

⁶⁴See Sayer (1605), lib. 1, cap. 8, n. 4; Sanchez (1614), lib. 1, cap. 9, n. 10

⁶⁵Sanchez (1614), lib. 1, cap. 9, n. 10: “Quia potest illis probabilis videri ea sententia, cum tamen apud peritos non talis habeatur... Cur non eos excusabimus, quando apud doctorem gravem id scriptum reperint? ... Saepe [indocti], aut non bene doctoris illius opinionem callebunt, aut casui particulari applicare nescient”.

⁶⁶De Angelis (1667: 264), lect. 5.

should seek guidance from *her* parish priest or doctor. The latter would be a local specialist, e.g. at a cathedral chapter. This fixation of reference was designed to prevent agents from shopping around for opinions until they found one that suited their comfort or worldly interests. In the eyes of anti-probabilists, one of the most serious problems of probabilism was that it encouraged opportunistic strategies of information searching, that is, asking around until one found an agreeable expert opinion. Once such opportunistic behavior was ruled out, there was nothing wrong with following one's parish priest or theological doctor, given they performed their jobs decently. De Angelis even accepted one of the most contested claims of probabilism for the case of *illiterati*. The more radical probabilists claimed that the opinion of a single expert was *prima facie* probable, even if it contradicted the opinions of many other experts. Anti-probabilists fervently attacked the general validity of this claim, but De Angelis endorsed it, at least for the uninitiated. The opinion of a single doctor (his or her doctor) was *prima facie* probable for an *illiteratus* who as such could not judge the probability of opinions.

It seems clear that the problem of opinion shopping hardly arose for the uneducated who lived in remote places with at best one parish priest to turn to for advice. Moreover, the caveat that hearsay and reading was not a sufficient substitute for expert counseling reduced the chances of finding an opportune opinion. Yet otherwise, probabilism left some leeway for opinion shopping, in particular for resourceful agents. Rich and powerful *illiterati* could and did engage in opinion shopping. Confessors of princes stood some risk of being replaced if they limited their client's moral options too recalcitrantly. International merchants could choose between renowned experts from whom they procured guiding opinions, and the opinions of renowned experts on business ethics differed considerably. Ordinary persons profited from this plurality if they endorsed a probable opinion that suited them, because their confessor was then called up to accept it (see Chapter 11).

4.1 Women

The 'expertocratic' scholastic understanding of practical ethical and scientific competence obviously disadvantaged women under a premodern (or rather pre-twentieth century) institutional setting. Being barred from colleges,

women could not become authorities whose opinions mattered. For the same reason, they were *illiterati* who were told to follow the advice of more competent (male) others. Since this conclusion was hardly controversial for scholastic moral theologians, not much reference is made to women in texts on the choice of opinions. A few exceptions to the rule may therefore be noteworthy.

The anti-probabilist Jean-Baptiste Gonet (1615–1681) mentioned women when arguing against a presumption of probability for the opinions of ordinary doctors.⁶⁷ Gonet pointed out that a duty to follow the opinion of somebody else was not proof of the opinion's probability. Surely, simple persons should follow the opinion of their priest, but not because his opinion was to be presumed probable. Ignorant boys were also called up to follow the opinions of an equally ignorant father or of a *muliercula*, whose opinions certainly did not become probable for this reason. *Muliercula* is a derogative word and can be translated as 'little woman', as in 'poor little woman' or 'stupid little woman', however, the translation 'simple woman' or 'ignorant woman' seems to be better in our context because scholastic authors like Gonet probably had that in mind.⁶⁸ The woman in Gonet's example may have been the boy's mother, a simple and ignorant wife of an equally ignorant husband. Thus, he maintained that children should believe their parents.

Besides that, Gonet's use of the depreciative word *muliercula* represents a more general negative attitude of casuists and scholastic moral theologians towards the intellectual and practical ethical competence of women.⁶⁹ The interesting thing about this view is that it did not change when the intellectual status of women began to improve in 'polite discourse' in the seventeenth century. Appreciation of the intellectual abilities of women grew during the Renaissance, and respective debates are sometimes thought to have amounted to a 'women question' (*querelle des femmes*). Historians of this process refer to a 'household academy' because the daughters of humanists, but also of rich and powerful families, sometimes received a good education and became known for their scholarly work.⁷⁰ In any case, the 'household academy' gave way to the 'household salon' in the seventeenth century, which became

⁶⁷Gonet (1700), Vol. 3, diss. de consc. probabili, art. 4, n. 72, 73.

⁶⁸On *muliercula* in Counter-Reformation thought, see Weber (1999).

⁶⁹Not all moral theologians used the depreciative term *muliercula*. The moral theologian Louis Habert referred to women (*mulieres*) and all other ignorant persons (*idiotae*) who ought to follow more learned people. See Habert (1747: 303), Vol. 3.

⁷⁰See Ross (2009), who posits the household academy from 1400–1580, and the household salon from 1580–1680.

famous for the literary activities of the wives or relatives of rich and powerful men. Catherine de Vivonne, marquise de Rambouillet, set the pace for this trend in France under Cardinal Richelieu, and many other famous *salonnières* followed under Louis XIV. Yet the seventeenth century also produced outright women philosophers, such as Anne Conway, and independent, powerful women intellectuals, such as Queen Christina of Sweden. The intellectual powers of women were increasingly acknowledged not only among proto-feminists.

Reflexes of this development can be found in Catholic theology, if benevolently interpreted. Casimir Oudin, for instance, who in the second half of the seventeenth century published a supplement to Bellarmino's influential all male account of famous ecclesiastical writers, added women writers and even offered a separate list of them in the index of his book.⁷¹ With respect to the doctrines of scholastic probabilists and anti-probabilists, however, no inkling of these changes in the intellectual status of women trickled through. Women apparently did not count as persons who could hold enough authority to render their opinions *prima facie* probable. This is not necessarily proof of a depreciation of female intellectual powers. Given the educational barriers of the time, women could simply not study theology or canon law, and they therefore lacked the requisite training for becoming authorities with respect to moral opinions. Nevertheless, responses to the growing intellectual status of women exist in the debate on probable opinions, because some moral theologians felt threatened by it. The French mathematician and probabilist Honoré Fabri (1608–1688) criticized people who relegated the solution and analysis of moral controversies to the *forum*, that is, to the judgment of the public, or to the distaff of ignorant women (*ad colum muliercularum*).⁷² The distaff is a tool for spinning and the women in question were thus characterized as spinsters. Above all, Fabri worried that some of his opponents ascribed more moral authority to women than to professional casuists. Since this accusation also appears in Fabri's response to Pascal's *Provincial Letters*, it was apparently not aimed at nondescript fans of female popular devotion, but at the Jansenists and the nuns of Port Royal, the main Jansenist monastery.⁷³ The Jansenists were well integrated in French salon culture, and behind Fabri's uneasiness lurks the spectre of a polite society, in

⁷¹Oudin (1686).

⁷²Fabri (1670: 3). See also in the same sense Fabri (1659), *Notae in notas*, ep. 5, nota 1, §4, sec. 6.

⁷³On the intellectual activities of the nuns of Port Royal, see Kostroun (2011).

which women increasingly became arbiters of virtue and moral conduct. The *mulierculae*, who aspired to this role, were thus not only Jansenist nuns but also *salonnières* and their ilk (because they addressed the *forum* of polite society). Fabri must have known that these women were not just simple, ignorant persons, but he saw them as a threat to the scholastic moral expertocracy, and he reacted in a way well-known from experts who feel hurt in their intellectual pretensions. If only appropriate academic training and long experience with real cases of conscience enabled a casuist to be a competent practical moralist, it was impertinent to elevate women, who possessed none of these prerequisites, above a good casuist, just because a woman excelled in virtue, common sense, and moral beauty. The underlying threat was well perceived: polite society, and with it women, would soon eclipse scholastic moral expertocracy, but it took a few more centuries until women were allowed to become moral experts with the same training as men.⁷⁴

5. Conclusion

Sets of criteria for the selection of opinions and beliefworthy authors summarized the respective considerations in scholastic moral theology before, as well as after, the rise of probabilism. Some of these sets took the form of a sequential filtering procedure in which further steps were only taken if an earlier step had not delivered a solution. For the time before probabilism, a juridical background of several procedures was conspicuous. In the strongly juridical selection procedures of Martín de Azpilcueta and Juan Azor, received opinion had precedence. This is a sign of an enduring conservative attitude in the court of conscience in the sixteenth century. It is important, however, to not extrapolate older selection procedures for beliefworthy sources and their opinions into the seventeenth century, because the rise of probabilism significantly changed the conditions under which sources and opinions were selected. Many probabilist handbooks of confessors did not resort to any sequential selection procedure for opinions or their sources, demanding only that the opinions should be backed by strong reasons and weighty authority. A more complex, criteria-based approach can be found in

⁷⁴On modern attitudes to moral expertise, see McGrath (2008); MacNiven (1990).

the work of the probabilist Martin Bresser, and it is interesting that he placed no emphasis on received opinions. On the contrary, in the only point that might relate to this issue, namely majority opinion, he warned against blindly following majorities. For the rest, Bresser's considerations aimed at an issue that became highly controversial at the time of his writing: the assumption that the voice of a single expert was probable, even in opposition to a vast majority of equally qualified others. Bresser's criteria of source quality tried to preclude that reliance on a single expert led to an unacceptable loss of quality with respect to the choice of opinions. Anti-probabilists sought to reach this aim by foreclosing the possibility of legitimately following a single author in controversial matters. They did so, among other things, by insisting on assumed greater probability as a precondition of eligibility for an opinion rather than recommending the choice of a received opinion. Prospero Fagnani further downgraded the significance of customary acceptance by warning that authority should not be dissociated from reasons for truth.

Altogether, the diverging criteria lists of Catholic moral theologians show that even in this respect, a plurality of approaches was accepted in early modern Catholic moral theology. This again indicates that it would be a grave mistake to operate with the assumption of a homogeneous or monolithic Counter-Reformation spirit. Seventeenth-century Catholic moral theology condoned diversity in order to uphold unity, or at least to prevent disunity from becoming disruptive. In line with this consideration, probabilism fostered the normative deflation of common opinions. Hence, common opinion did not occupy the place of received opinion after the latter's relative loss of importance. Common opinion became largely synonymous with a mere group opinion in the late seventeenth century, however small the group.

Finally, the distinction between well-trained and competent evaluators of opinions, and incompetent ones (*litterati* and *illitterati*) had always been subject to different regulations in the 'court of conscience'. A true choice between probable opinions was only open to presumably competent evaluators, which in the field of morality mainly meant moral theologians, casuists, or canon lawyers. The confident application of the principles of probabilism was also restricted to these groups. The scholastic expertocratic model of moral and epistemic guidance thus remained unassailed by the changes that the rise of probabilism brought about. It is true that Jansenism challenged expertocracy in moral theology by appreciating the moral judgment of devout Christians, including pious women, at the expense of

downgrading the competence of casuists. This attitude of a powerful movement in early modern Catholicism contributed significantly to the demise of scholastic expertocracy in the eighteenth century. However, I take the great Jansenists to be at best a borderline case of allegiance with scholasticism, and several of them, such as Blaise Pascal, were outright anti-scholastics.⁷⁵

Catholic scholastic moral theology largely upheld the view that non-experts should follow the guidance of experts, because the intricacies of practical ethics required expert judgment. (Chapter 11 will show, however, that moral guidance was meant to be informed by a pluralism of opinions, respecting a ‘space of the reasonable’ in which alternatives should remain eligible). In practice, however, the judgment of expert moralists might be unattainable and simple Christians were therefore instructed to follow the lead of their parish priests, who were often hardly less ignorant than their flock as regards practical ethics, including its pluralism of options. Much Enlightenment critique centered on this problem, but it should not be forgotten that the apparent practical difficulties of implementing the complex system of moral guidance and legitimate plurality, which High Casuistry represented, do not prove that its underlying moral and epistemological assumptions were unsound.

⁷⁵For the claim of an antagonism between Jansenism and scholastic theology, see, for instance, Goudin (1674: 19), Vol. 1, praefatio, art. 2.

Chapter 6: Stand-Alone Authority and Majorities as Guide to Truth

In cases of disagreement among experts, how many experts support one side in a debate and how many lean towards the other seems to be of considerable relevance. Today, this issue is usually approached through the relative sizes of expert communities. We are told, for instance, that 97 to 98 percent of climate scientists believe that global warming is manmade, and this message is intended to assure us of the—indeed highly—probable truth of the underlying claim.⁴⁵⁴ Early modern scholastics had a different perspective on the head count of authorities, which supported each side of a disputed question. They usually discussed absolute numbers of authorities, not relative shares of a community of experts. The rationale for this perspective can be traced to the specific scholastic understanding of a pluralism of opinions, and it provokes the question whether high percentage values of approval really tell us much about the truth of an opinion.

This question cannot, of course, be addressed without broaching the issue of epistemic majoritarianism, the view that a majority of competent judges on a matter of fact is *prima facie* more likely right than an opposing minority. The Marquis de Condorcet was the first to prove the correctness of epistemic majoritarianism in the eighteenth century using a statistical model (see below). Condorcet's *Jury Theorem*, as it is called, is celebrated as one of the major achievements of the Enlightenment era, ultimately placing us on the road towards modern theories of social choice and the development of a new field called 'epistemic democracy'. It is worth mentioning that apart from its mathematical ramifications, the claim that a majority of competent judges is *prima facie* more likely to unearth the truth than a minority had already been widely accepted by medieval and early modern scholastics. Yet for them, this claim only had scant significance for the choice of opinions under realistic conditions – a point on which the rival schools of scholastic thought were in surprisingly strong agreement. Scholastics usually agreed that disagreeing authorities differed in quality, relied on different arguments, or weighed

⁴⁵⁴See Wikipedia on 'Scientific opinion on climate change', section 'surveys of scientists' for these and similar numbers (retrieved 23 December 2016).

evidence differently. Under these premises, a simple head count of judges and judgments, as mathematized by Condorcet, appears misleading. This could also be gleaned from the medieval concept of the ‘larger and sounder part’ (*major et sanior pars*) of a body of experts or deciders, in which the number of experts or deciders was tempered by their quality. Based on superior quality, a minority could, in fact, count as the ‘larger and sounder part’.

Whether this minority could be as small as a single expert (*unius doctor*) was a hotly debated topic in seventeenth-century Catholic moral theology. Most theologians believed that under certain conditions, a single expert voice could be authoritative enough to be considered probable by others (that is, extrinsically probable). Daring probabilists went even further by claiming that the opinion of a single doctor could be probable, even if it was opposed by a large majority of equally competent others – a countervailing ‘torrent of doctors’ (*torrens doctorum*) as it was sometimes called.⁴⁵⁵ Anti-probabilists typically denied this radical claim.

It is conspicuous that the controversial scholastic debate on the authority of a single doctor ran parallel to similar claims of the early modern philosophical avant-garde. The cases of Copernicus and Galilei seemed to verify that a single outstanding scholar could be more right than all opposing ‘experts’ together. This became a foundational conviction of modern science, but it was (except for the theories of Copernicus and Galilei) in no way out of tune with contemporary scholastic doctrines. The claim that the opinion of a single authority could be as good an indicator of truth as the combined opinions of an opposed large majority of authorities was a trademark of seventeenth-century scholastic probabilism.

The present chapter discusses these issues from a largely scholastic perspective. It begins with the medieval paradigm case for a single doctor’s authority: Aquinas’ case of students who followed the opinions of their professor. The chapter then turns to the dispute of probabilists and anti-probabilists on the stand-alone authority of single doctors. Accounting for the mentioned parallels, we will also look at similar attitudes of the early modern avant-garde of philosophy (that is, Descartes, Hobbes, et al.) and finally come to the issue of epistemic majoritarianism, the view that majorities of competent judges are more likely to find the truth than opposing minorities.

⁴⁵⁵See, e.g., Bresser (1638), lib. 3, cap. 3, n. 30.

1. Aquinas on following one's teacher

Early modern scholastics often traced their questions and theses back to the teachings of great medieval scholastics. With respect to the claim that the authority of a single doctor suffices to render his opinion probable (henceforth: stand-alone authority), they harked back to a few sentences with which Aquinas allowed students and graduates to follow the opinions of their professor (see Chapter 1). In the third of his miscellaneous (i.e., quodlibetal) questions, Aquinas discussed the view that the hearers of diverse professors, who hold diverse opinions, are excused from error if they follow the opinion of their professor.⁴⁵⁶ Aquinas responded: In cases that did not impinge on faith or morality, hearers were, indeed, permitted to follow the opinions of a professor of theology. On issues pertaining to faith and morality, however, nobody who followed the erroneous opinion of a professor was excused. That is, in such cases, ignorance could not be excused.⁴⁵⁷

As shown in Chapter 1, Antonino of Florence (1389-1459) interpreted Aquinas' scope restriction, which excluded contexts pertaining to faith and morality from an entitlement to follow one's professor, as only intending to exclude issues in which precepts of faith and morality were clearly being violated. That is, instead of postulating a scope restriction for an entire area of inquiry, Aquinas is understood by Antonino as formulating a certainty restriction. Nobody is excused for following his professor in matters conflicting with tenets of faith and morality that are regarded as certainly true by the Church. With respect to legitimately disputable issues of faith and morality, however, students may follow their professor or any other competent scholar. We need not presently worry, whether this is a good interpretation of Aquinas' words or intention. What matters is that the Dominican Saint Antonino and many other scholastics after him, avowed Thomists included, understood Aquinas in this way. Aquinas thus became a

⁴⁵⁶Aquin (1956), ql. 3, q. 3, a. 10.

⁴⁵⁷Aquin (1956: 47), ql. 3, q. 4, a. 2 [10]: "Videtur quod auditores diversorum magistrorum tenentium diversas opiniones excusentur a peccato erroris: si opiniones magistrorum suorum sequantur. Respondeo. Dicendum, quod diversae opiniones doctorum sacrae Scripturae, si quidem non pertineant ad fidem et bonos mores, absque periculo auditores utramque opinionem sequi possunt: tunc enim habet locum quod Apostolus dicit ad Rom., XIV, 5: 'Unusquisque in suo sensu abundet'. In his vero quae pertinent ad fidem et bonos mores, nullus excusatur, si sequatur erroneam opinionem alicuius magistri: in talibus enim ignorantia non excusat".

warrantor of quite a liberal epistemology of trust, and was, in fact, quoted by proponents of stand-alone authority, because the professor case seemed to legitimize following the opinion of a single competent author, even against wide opposition. This is not to say that Antonino's interpretation of Aquinas' solution of the professor case was unanimously accepted. Some commentators ascribed a more restrictive view to Aquinas with respect to particular fields of conduct or specific areas of theology. A difference was presumed, for instance, between human and divine law. Interpreting Aquinas' professor case, Adrian of Utrecht and Antonio de Cordoba claimed in the early sixteenth century that an erroneous adoption of one's professor's opinions was excusable with respect to human, but not to divine law. They thus harmonized the more permissive doctrines of eminent fifteenth century lawyers, such as Panormitanus or Alexander of Imola, with Aquinas' apparently stricter teachings.⁴⁵⁸ Dividing the spoils, lawyers were assumed to prevail on their home turf, that is, human law, whereas Aquinas' expertise was in faith and morality, the domain of theologians. In the end, however, this distinction did not survive the rise of probabilism. The renowned probabilist Tomás Sanchez, for instance, explicitly rejected a limitation of the permission to follow a teacher (or competent speaker) to human law.⁴⁵⁹ In another respect, some Baroque moral theologians thought that in disputed matters concerning the dispensation of Sacraments, a trusted single author's opinion could not be followed without becoming liable for his errors.⁴⁶⁰ Apart from such exceptions, however, faith and morality were not generally considered domains in which an agent followed the opinions of others strictly at her own risk, and Aquinas was not interpreted as saying so, despite the apparent contrary wording of his main comment on the issue. This way of treating Aquinas appears to be typical of medieval and early modern scholasticism. Antonino of Florence held the words of Aquinas in esteem, but he interpreted them so that they complied with what he considered a reasonable view of the problem Aquinas had dealt with. Esteem meant making the best of a master's statement, even if this required a bit of stretching and bending. Aquinas could thus remain an attractive source in a debate that had moved a considerable distance since the master's death.

⁴⁵⁸See Hadrianus Florentius (1515), quodl. 4, a. 1, lit. F, fol. 36; Cordoba (1569), lib. 2, q. 3, p. 18, also for the reference to the lawyers.

⁴⁵⁹Sanchez (1614), lib. 1, cap. 9, n. 7-9.

⁴⁶⁰For various exceptions granted by probabilists from the stand-alone authority of a renowned theological source, see Cardenas (1670), tom. 1, disp. 11, cap. 3, art 3-8.

2. Stand-alone authority in probabilism

Many probabilists used Aquinas' permission to adopt the opinion of one's own professor, in the mitigated and generalized form it had assumed in the hands of late medieval authors, to generally argue for the probability of the opinion of even a single doctor. At the end of the sixteenth century, the probability in question was called extrinsic and was presumed to arise from the authority of doctors in their art or science. Only gradually did the critical case, in which a single doctor stood against a vast majority of equals, become an actual point of controversy. When we speak of 'stand-alone authority' in the following, the authority of a single competent judge is assumed even in such a case. But let us patiently follow the unfolding of the scholastic debate.

Manuel de Sá (1530–1596), the author of a well-known handbook for confessors, tersely claimed that a person may do what she considers permissible because of a probable reason or authority, for which the opinion of any notable doctor (*doctor gravis*) or the example of a good person suffices.⁴⁶¹ Juan Azor, Gabriel Vazquez, and Tomás Sanchez, all much more notable doctors than Sá, formulated their respective claims in more circumspect ways. Sanchez harked back to Aquinas' discussion of students who follow their professor, but then offered a wholly general justification for the probability of even a single doctor's opinion. Any opinion whose foundations were better than tenuous (*non levis*) was probable, and the authority of a learned and pious man was not a merely tenuous foundation. Moreover, we tend to believe a single witness who tells us about what has happened in Rome. Hence, the authority of a single learned and pious man rendered an opinion probable.⁴⁶²

The sufficiency of a single doctor's authority had already, of course, been accepted without much ado in the Middle Ages with reference to uninstructed and uneducated persons (see Chapter 5). The crux of stand-alone authority in combination with probabilism was its much wider scope. Sá,

⁴⁶¹Sá (1608), verbum 'dubium', n. 3: "Potest quis facere, quod probabili ratione vel auctoritate putat licere, etiamsi oppositum tutior sit: sufficit autem opinio alicuius gravis doctoris, aut bonorum exemplum".

⁴⁶²Sanchez (1614), lib. 1, cap. 9, n. 7: "Sed dubitabis, an auctoritas unius doctoris probi & docti reddat opinionem probabilem. Respondetur reddere ... Et probatur, quia opinio probabilis est, quae non levi innititur fundamento. At auctoritas viri docti & pii non est leve fundamentum".

Azor, Vazquez, and Sanchez argued that competent as well as non-competent agents might follow the authority of a single doctor, even if the doctor opposed common opinion. While the latter three imposed restrictions for this case, Sá failed to qualify his general permission. Sanchez accepted two restrictions.⁴⁶³ The first originated from Azor and requires that one should not deviate from common opinions too often and in passing. However, a deviation was justifiable on the basis of firm reasons. The second restriction was taken from Vazquez, who called for strong reasons (i.e. intrinsic reasons) and not mere acceptance of a doctor's extrinsic authority as grounds for following him against common opinion. Neither Azor, nor Vazquez or Sanchez thus supported the indiscriminate adoption of a doctor's position against common opinion. However, if a deviant author's reasons convinced a competent agent, he might follow the opinion in question against common opinion, or against a counter-opinion held by a large number of other authorities.

In principle, this permission echoes an already established medieval view (see the section on common opinion in Chapter 5), but the promoters of stand-alone authority added important extensions. These extensions, usually perceived as deregulatory or as a lowering of standards, were a main target of critics. Hardly anybody denied that the authority of a single doctor could render an opinion probable under exceptional conditions as, for instance, the exceptional ingenuity of an outstanding scholar. The aficionados of great scholastic thinkers, of course, considered the opinions of their star authors as probable, even though great opponents had held opposite views. Aquinas' opinions were a case in point, defended as being probable on his authority even by orthodox Thomists, who otherwise rejected the probabilists' treatment of stand-alone authority. Critics therefore focused on the problem that probabilists claimed stand-alone authority for far too many scholars, and easily found examples to worry about. Summists and compilers, that is, the authors of (mere) handbooks of casuistry, often simplified their claims, so as not to confuse their readers with intricate distinctions and disclaimers. The lengthy scholastic discussion of pros and cons, buttressed with dozens of distinctions, was an academic affair, whereas casuists mainly wrote for practitioners who expected quick guidance. For this reason, the view that good Christians were generally permitted to follow the opinion of any learned

⁴⁶³Sanchez (1614), lib. 1, cap. 9, n. 9.

advisor, unless the opinion was expressly prohibited by the Catholic Church, gained ground and became part of the public image of probabilism.

Simplification was one problem, and the inflationary rise of the numbers of acceptable authorities was another. From 1140 to roughly 1560, Roberto Bellarmino only listed twelve ‘classical’ summists of morality, whereas Juan Azor counted twenty-four (see Chapter 5). Despite allowing for further notable doctors of moral theology in this period, the head count of doctors whose authority sufficed for single-handedly bestowing probability on their opinions was thus apparently rather limited. This state of affairs changed rapidly in the sixteenth century. The Council of Trent encouraged better education of the clergy, not least in solving cases of conscience. Cathedral chapters met the challenge and held weekly discussions of moral cases, often with subsequent written documentation. The Jesuits began teaching cases of conscience at their colleges under the guidance of professors who specialized in the subject.⁴⁶⁴ Most of these professors wrote or published texts on practical morality, either as part of general treatises on moral theology or as manuals for confessors. The outcome was an enormous proliferation of texts on casuistry and moral theology, beginning in the second half of the sixteenth century and reaching its full momentum in the first half of the seventeenth. The flood of texts on Catholic moral theology ended only with the combined impact of the abolition of the Jesuits and the French Revolution in the late eighteenth century (and then only temporarily). In the seventeenth century alone, the number of authors publishing on Catholic moral theology rose to several hundred or even over a thousand.⁴⁶⁵ Each of these authors could with some right claim to be a notable and decent (*gravis et probus*) doctor. Of course, not many became as renowned as Azor’s classical summists, such as Antonino of Florence or Sylvester de Prierio. But seventeenth-century moral theologians could claim expert knowledge in their discipline (often displayed in awesome breadth in their books) and hands-on experience with the guidance of conscience, including intricate cases.⁴⁶⁶ It is not so clear by which objective standard they were *not* to count as notable and decent experts. Considering them as such, however, led to severe problems of moral guidance. Among the hundreds of eligible doctors, it was often easy to find at

⁴⁶⁴Garcia-Villoslada (1954: 71); Theiner (1970: pp. 117).

⁴⁶⁵See the list of sources in Turrini (1991) or the sources at the end of the present book.

⁴⁶⁶According to Tutino (2018: 275), the probabilist Alberto de Albertis claimed that it was easier for a theologian to make up new opinions than for a potter to produce a statue of Mercury out of clay.

least one supporter for any action plan that was not manifestly morally wrong. Practical morality thus ran the risk of becoming too permissive – precisely what critics of Baroque casuistry attacked under the name of ‘laxism’.

A further problem was that many probabilists considered it legitimate to follow the opinion of even a single doctor against one’s own considered opinion. Gabriel Vazquez (1549–1604) was rather isolated in arguing that an agent was not allowed to follow a single author’s opinion against his own opinion.⁴⁶⁷ For Vazquez, further extrinsic probability (that is, expert opinion) was required to legitimize acting against one’s own contrary opinion. In principle, he considered it licit to act against the sentence of one’s own conscience as long as this sentence was not one’s consciences final moral word. That is, if the final sentence of conscience entailed the consideration that external opinion provided better moral guidance here and now than one’s own opinion, following external opinions against one’s so far standing own opinion was legitimate. Yet Vazquez seemed to also assume (he does not explain himself in detail) that a well-trained agent’s opinion enjoyed a *pro domo* privilege in comparison with an opinion of an apparently equally competent other person. In consequence, to overrule the opinion of a competent moral agent *ceteris paribus*, reference to the opposite opinion of a single doctor did not suffice. Further concurring external opinions were required or further good reasons on the side of the countervailing opinion.

Rodrigo de Arriaga (1592–1667), one of the most famous theologians of the first half of the seventeenth century, took issue with Vazquez’s claims and replied that if a single doctor’s opinion could be considered probable even though it ran counter to the opinions of all other doctors, it should also be considered strong enough to outweigh the countervailing opinion of an agent’s own moral opinion.⁴⁶⁸ Arriaga’s objection seems cogent, and although he was not reckoned among the more extreme probabilists, the license to follow a single doctor’s opinion against all others, including one’s own opinion, certainly constitutes a further deregulation with respect to choice of opinions.

A similar development towards deregulation occurred with respect to the truth-claim that was involved in stand-alone authority. Although the issue was initially not discussed, it seems clear that until the rise of probabilism,

⁴⁶⁷Vazquez (1606), disp. 62, cap. 4, n. 17: “ut censeatur sufficienter probabilis ad hoc, ut eam contra propriam sequamur, debet esse non unius tantum doctoris et singularis”.

⁴⁶⁸Arriaga (1644), disp. 24, sec. 3, n. 10.

and even for the first probabilists, a doctor's probable opinion had to be a proposition which he held true. It might, for instance, be the opinion that drinking coffee is morally licit. (Coffee was a new drink around 1600 and its moral status was not immediately clear). But what about the probability of a single doctor's probability statements? Was it by virtue of a doctor's authority true that drinking coffee was probably licit, if the doctor claimed that it was probably licit? Considerations of this sort preoccupied probabilists from the 1630s onward. Martin Bresser (1584–1635) claimed that only a single doctor's definite truth claim about a proposition p created probability, whereas a single doctor's claim that p is probable did not suffice to render another person's assent to p probable.⁴⁶⁹ In the latter case, Bresser demanded two or more supporting external opinions, akin to the legal rule that the testimony of two witnesses suffices as evidence. Other probabilists later abandoned this constraint. The Jesuit Francesco Bardi (1583–1661), for instance, ascribed probability to a single doctor's opinion p even if he treated it as merely probable but not as true.⁴⁷⁰ The issue of the probability of an expert's probability statements corresponds to concepts of nested probability, such as merely probable probability (*probabilitas probabilis*), which were hotly debated in the second half of the seventeenth century (see Chapter 9).

The daring claims of some authors offered an open flank for critics of probabilism, and it would be a mistake to assume that the discussed deregulatory developments concerning the adoption of a single doctor's controversial opinion were shared by all Catholic moral theologians, or even all probabilists. Starting with Azor, Vazquez, and Sanchez, most theologians who wrote detailed analyses of stand-alone authority insisted on limitations and restrictions. The most common restrictions aimed at the quality of a stand-alone expert and the diligence of his judgment. Most theologians agreed that it did not suffice for probability if a well-trained and experienced ordinary counselor of conscience had formed an opinion in passing and without thorough inspection of the issue in light of all extant arguments. The expert ought to be reliable and not known for a track record of rash, premature, sloppy or emotional judgments. A further important distinction that allowed for a mitigation of stand-alone authority concerned the novelty of the doctor's claims. Fernando Castropalao (1581–1633) wrote that the opinion of a single doctor typically was probable if it pertained to an issue which had not yet been

⁴⁶⁹Bresser (1638), lib 3, cap 3, n. 28.

⁴⁷⁰Bardi (1650), disc. 4, cap. 4, n. 7.

extensively discussed before.⁴⁷¹ Hence, if a notable doctor formulated a novel thesis or initiated a debate on a given issue, his opinion should count as probable as long as contrary statements of equally qualified opponents were few and the entire matter had not yet been comprehensively discussed. However, a single doctor's opinion was also to be considered probable in amply discussed matters, if the doctor introduced a new argument, or one which others had not sufficiently analyzed or appreciated. Castropalao added that this was rarely the case, and that the doctor should rather assume to be wrong than believe he understood an already discussed argument better than all others. In some cases, finally, a well reflected opinion of a single doctor might be probable even though it conflicted with a common opinion of scholars. Castropalao quoted Azor, Vazquez, and Tomás Sanchez in support of this claim, but as we have seen, these authors did not ascribe a *prima facie* probability to the opinion of any competent stand-alone opponent of common opinions, but required further reasons for this step.

Juan Martínez de Prado's (died 1668) survey of the debate on stand-alone authority distinguished between extreme and moderate positions. Tomás Sanchez and a handful of followers had adopted an extreme understanding of stand-alone authority, according to Martínez de Prado.⁴⁷² They wrongly believed to be following precursors such as Aquinas, Silvester Mazzolini, or Martín de Azpilcueta (Navarrus). On the other hand, Martínez de Prado only listed very few extreme opponents of stand-alone authority, such as the comparatively marginal authors Gregor Martínez and Jean Ildephonse Baptista. This could partly be explained by the fact that Martínez de Prado's book appeared before a tsunami of anti-probabilist writings hit the Catholic scholarly world in the second half of the seventeenth century. Most theologians had adopted a moderate approach prior to this rupture, accepting stand-alone authority but imposing a rich set of limitations. Martínez de Prado acknowledged that the authority of a single doctor in not yet sufficiently disputed questions was probable. He also maintained that Aquinas' exclusion of matters of faith and morality from the authority of a single doctor only concerned cases whose solution everybody needed to know (*quae omnes*

⁴⁷¹Castropalao (1700), tom. 1, tract. 1, disp. 2, punct. 1, n. 3.

⁴⁷²See Martínez de Prado (1654), cap. 1, q. 2. As indicated, Tomás Sanchez seems to not have been a radical proponent of stand-alone authority. Martínez de Prado only states that the extremists, such as Filliucci, Merolla, Diana, or Juan Sanchez hark back to Tomás Sanchez, not that he was as radical as them. In my opinion, however, neither of these authors is really extreme in holding the single doctor claim, because they insist on limitations. Yet they may well be relatively more radical than the mainstream.

tenentur scire) – while in other cases, probable argumentation in faith and morality remained permissible. Yet this did not preclude that further conditions could apply, which rendered it illicit to follow the opinion of a single doctor against a common one. This was true if the good of many people hinged upon a controversial opinion, or if great harm threatened to befall those near us (*proximi*).⁴⁷³ In any case, the mere authority of a single doctor did not suffice to render his opinions probable, unless he adduced strong reasons for it.

Juan Cardenas (1613–1684) reserved an entire disputation of his *Crisis theologica* for the issue of extrinsic probability, discussing stand-alone authority in detail. He convincingly shows that all major authors who had written on the subject imposed limitations on stand-alone authority. This even included authors who had been listed among the extremists by Martinez de Prado. In a final resort, Cardenas established four limitations for stand-alone authority:

- (a) certainty of the opposite opinion,
- (b) weakness or absence of reasons for the opinion in question,
- (c) the author has held views before, which are without controversy improbable,
- (d) the author affirms his opinion without diligently examining the reasons and grounds of both sides.

Condition (a) does not require much discussion. A single doctor's opinion could not be probable if the counter-opinion was certainly true. Condition (b) refers to the requirement of providing strong reasons for one's opinion. It does not suffice to rely on one's authority or reputation to render an opinion probable, if many or even a great majority of competent others disagree. Condition (c) restricts the presumption of probability to individuals with a decent track record of probable judgment. Doctors known to disseminate flashy but unsound theses had *prima facie* no title to be taken seriously in opposition to established doctrines. Finally, condition (d) excludes all those doctors who simply state an opinion without thorough investigation. This is an important restriction, because Cardenas explicitly included mere summists, compilers, and transcribers in this category. Emmanuel Sá, Paul Laymann, or Hermann Busenbaum would be mere summists in the eyes of

⁴⁷³I take *proximi* here to include all human beings, or at least all Catholics.

Cardenas, because they were quintessential authors of casuistic manuals rather than of sophisticated treatises of moral theology. Antonino Diana and Antonio Escobar were typical compilers (*compilatores*) of casuistic solutions. These authors were generally suspected by Cardenas to judge at least some cases without sufficient reflection (Diana compiled roughly 20.000 cases). Hence, their opinions should *prima facie* not count as probable unless buttressed by those of scholars who usually engaged in deeper reflection. Generally, all theologians who only held professorships for cases of conscience might fall under this verdict. Professors of scholastic theology, by contrast, were *prima facie* presumed to be more thorough, following a widespread intellectual ‘heavy weight’ vs ‘light weight’ cliché against mere casuists.

The works of Martinez de Prado and Cardenas also discussed new doctrinal regulations of the Catholic Church, which had not yet existed in the earlier stages of the debate on a single doctor’s authority. In 1665/66, Pope Alexander VII condemned several lax moral sentences which had apparently been gleaned from probabilist writings. This was the first of a sequel of papal condemnations that spelled trouble for probabilism. Innocent XI continued the campaign against lax sentences in 1679, and Alexander VIII followed suit in 1690. None of these popes, however, inveighed against probabilism as such or any of its basic principles. The immediate target were singular excesses of moral and theological judgment, but probabilists knew that the wind from the top had turned, and that they could no longer expect friendly papal support as under Urban VIII. The twenty-seventh of the sentences condemned by Alexander VII claimed:⁴⁷⁴

“If a book is by a recent and modern author, his opinion is to be judged probable, unless it has been expressly rejected by the Holy See as improbable.”

As usual for a condemnation of a lax moral sentence, the sentence’s author is not named, thus officially keeping the issue at an anonymous level. But for our purposes, the message is clear enough. It was not permitted to claim that all opinions of single competent authors were *prima facie* probable, unless a

⁴⁷⁴Denzinger (1854: 256): “Si liber sit alicujus junioris et moderni, debet opinio censeri probabilis, dum non constet, rejectam esse a Sede Apostolica tamquam improbabilem”. See also Terill (1669), ass 10, n. 25.

pope had condemned them as being improbable. The issue of modernity will be dealt with in Chapter 7, and it is not necessary to introduce it here beyond the conclusion that there can be no general assumption of probability for the opinions of competent authors if this assumption is denied for modern competent authors.

It should, however, be noted that the incriminated sentence includes a further subtle claim. The sentence requires a papal judgment of improbability for a denial of probability of an opinion, not considering it sufficient that the Pope declared an opinion as false. In fact, in the eyes of at least some moral theologians, a mere papal condemnation of a sentence did not render it improbable, if its improbability was not also explicitly asserted. This assumption was quite problematic. Certainly, an ordinary person's holding of a proposition for false did not imply its improbability. A person could assent to a proposition and thus consider any counter-proposition to be false without denying the counter-propositions' probability, as was commonly accepted. However, a papal condemnation seemed to have different implications. After such condemnation, good Catholics should—due to papal infallibility—*know* for sure that the condemned proposition was false. Hence, they must also know that the reasons for the truth of the proposition, as strong as they might have appeared before, were spurious. There could be no strong remaining reasons for assent to the proposition, which therefore was improbable. A papal condemnation of a proposition as false in consequence implied its improbability, so that no additional statement of improbability was required.

Some moral theologians, however, assumed that condemnation of an opinion as false did not automatically debunk the intrinsic reasons that spoke for its truth; it only authoritatively summarized the process of weighing all reasons.⁴⁷⁵ Observers who only knew (a) the reasons an author had offered for an opinion, and (b) the condemnation of that opinion, but not (c) the counter-reasons that had convinced the Pope, could still legitimately regard the opinion as intrinsically probable, given the reasons available to them. They had to, of course, consider the opinion as extrinsically improbable because of the Pope's supreme authority (remember authority-based probability is extrinsic). But did that imply that the opinion was improbable on the whole? It could be argued that an opinion was only improbable *tout court* if it was intrinsically and extrinsically improbable, and this was not the case if the Pope issued a condemnation without providing convincing reasons for it. This was

⁴⁷⁵See Lacroix (1707), lib. 1, q. 31, §2 on this issue.

surely not a mainstream view, but apparently, no pope ever condemned it *ex cathedra*, neither as false nor as improbable.⁴⁷⁶

In any case, Martinez de Prado duly distanced himself from the claim that the opinion of a modern doctor was *prima facie* probable unless it had been condemned. He mentioned it under the extreme probabilist positions, and rejected it as ill-considered, indicating a widening split between moderate and extreme probabilists.⁴⁷⁷ After 1650, many moderates distanced themselves from claims they regarded as extreme, sometimes even branding other probabilists as ‘extremists’. Cardenas’ *Crisis theologiae* of 1670⁴⁷⁸ was a prime example of this approach, launching a sustained attack on Juan Caramuel y Lobkowitz’s peculiar brand of probabilism. The flamboyant Baroque intellectual Caramuel (1606–1682), ironically a former good friend of Alexander VII, drew fire from many directions. He was the *bête noire* of anti-probabilists, including the Jansenists around Blaise Pascal, but even many moderate probabilists sought to distance themselves from him. Notable Jesuits, such as Cardenas, did so to protect their order from Caramuel’s harmful affection. Caramuel had always sought the friendship and protection of the Jesuits, but once the war on probabilism had fully broken out in the 1650s, he became a liability, not only for his erstwhile mentor Fabio Chigi, who was now Alexander VII, but also for the Jesuit Order.⁴⁷⁹

Presently, we are only concerned with Caramuel’s version of stand-alone authority and Cardenas’ critique of it. Cardenas relied, among other things, on the above discussed papal condemnation of the claim that a modern author’s opinion is to be considered probable unless it is condemned as improbable by the Pope. This claim had been condemned by a pope as improbable. Yet the claim had also been made by at least four notable authors. Hence, not all claims made by four notable authors were probable.⁴⁸⁰ The target of this attack was a notorious reflexive argument by Caramuel, who attempted to prove the inconsistency of the claim that more than one author is required to render an opinion probable. Some moral theologians assumed numerical thresholds for extrinsic probability, such as support by four, five,

⁴⁷⁶See the discussions in Casnedi (1711), tract. 1, diss 1, sec. 3, n. 31; Lacroix (1707), lib. 1, q. 31 and 32; and Colombo (2006), Chap. 7.

⁴⁷⁷Martinez de Prado (1654), cap. 1, §1, n. 2 and §4, n. 20.

⁴⁷⁸Post-1670 editions, such as Cardenas (1687), of the *Crisis* differ significantly in content from the 1670 edition and should be treated as different works.

⁴⁷⁹See also Antonius Terill’s (1669), q. 2, stand-off from Caramuel, in his discussion of definitions of probability.

⁴⁸⁰Cardenas (1670: 132), disp. 11, n. 13.

sixteen, or even twenty competent authors.⁴⁸¹ In any case, the claim that one doctor sufficed to generate extrinsic probability was defended by sixteen or even twenty authors. Hence, the claim was probable even according to the standards of its opponents, and it could therefore, with good conscience, be upheld by probabilists. The argument would even be valid, if sixteen authors called for a threshold of at least four votes, and four authors considered a single doctor's authority as sufficient ground for extrinsic probability. Caramuel's opponents realized that nearly everything could be justified if this 'bootstrapping' of stand-alone authority was accepted. Yet, how to defeat it? Cardenas argued that the authors who opposed stand-alone authority implicitly excluded that it could be established on the basis of a head count of authoritative statements.⁴⁸² Moreover, probabilism itself could as a matter of principle not be vindicated by meta-considerations of probability, or so its opponents claimed. From a modern perspective, Cardenas' response to Caramuel's challenge does not really appear satisfactory. Whatever the intentions of opponents, Cardenas failed to offer a convincing reason why Caramuel's meta-argumentation was pointless. Given that numerical thresholds of extrinsic probability were postulated without much theoretical grounding—as was often the case—it is unclear why they should not be applied self-reflexively.

In any case, Cardenas and most other commentators on stand-alone authority did not deny that the authority of one good doctor *could* suffice to render an opinion probable. Cardenas only inveighed against the claim that this is ordinarily or *prima facie* so. For him, the authority of a single doctor only sufficed to *prima facie* establish probability, if his above mentioned four caveats were satisfied.

3. *Anti-probabilism: Opponents of stand-alone authority*

Anti-probabilists invariably objected to the more daring forms of stand-alone authority. A critique of its most indulgent versions can already be found in Andrea Bianchi's *De opinionum praxi* (1645), a harbinger of the huge wave of attacks on probabilism in the second half of the seventeenth century.⁴⁸³ Anti-

⁴⁸¹See Caramuel (1640), disp. 4, art. 1, n. 53; Caramuel (1652), fund. 11, n. 265.

⁴⁸²Cardenas (1670: 132), disp. 11, n. 9.

⁴⁸³Bianchi (1645: 99), q. 8.

probabilists, however, did not claim that a single author's opinion invariably failed to be probable. Aquinas' opinions were certainly probable. But such a special status had to be won by rare excellence and could not be attributed to all decent and learned theologians, let alone casuists and compilers. In cases in which a single ordinary theologian stood against a significant number of equally (or more) qualified opponents, anti-probabilists regularly rejected the probability of the single author's deviant opinion.

Prospero Fagnani (1588–1678), for instance, one of the lead authors of the anti-probabilist campaign in the second half of the seventeenth century, severely limited the scope of stand-alone authority. He quoted a barrage of top authorities against the claim, starting with Aristotle and the topical definition of probability. According to Aristotle, as quoted by Fagnani, *probabilia* appear true to all, or many, or the wise, or the most notable wise persons. Fagnani assumed that in all these cases, Aristotle referred to a plurality of persons. Hence, propositions that only appeared true to a single wise person were not yet probable.⁴⁸⁴ But it was a matter of interpretation whether Aristotle's definition of the *endoxon* permitted a single person to be 'the wisest'. Fagnani's argument thus had very limited force. Nevertheless, the many single doctors for whom probabilists claimed stand-alone authority hardly belonged to the category of authors who excelled head and shoulders above all others. Therefore, an incompatibility did indeed exist between endoxical probability and stand-alone authority as conceived by the more radical probabilists.

Fagnani was not the only author to notice that a single doctor's claim to authority was hardly compatible with the traditional endoxical notion of probability. The anti-probabilist Tirso Gonzalez remarked that many authors attributed probability to common opinions only, because the *endoxon* refers to propositions held true by all or many.⁴⁸⁵ Probabilists could only counter such attempts to enlist Aristotle against them with difficulty. We have already discussed the strategy of acknowledging a departure from Aristotle, but another road was taken by the probabilist Claude Lacroix. The Latin translation of Aristotle's main passage on the *endoxon* referred to *probabilia* in the plural. Lacroix argued that it was therefore appropriate to speak of a plurality of judges with respect to several probable sentences (*probabilia*),

⁴⁸⁴Fagnani (1765), n. 406: "Probatur primo auctoritate Aristotelis 1. Topic. Cap. 1 ubi ait: Probabilia autem sunt, quae videntur omnibus, aut pluribus, aut sapientibus & his maxime notis. ... Ergo quae videntur uni tantum sapienti, non sunt probabilia".

⁴⁸⁵Gonzalez (1694), diss. 1, n. 37.

whereas one author sufficed to render a single opinion probable.⁴⁸⁶ However, this act of creative reading seems not to have attracted many followers.

Fagnani adduced not only Aristotle, but also Christian authorities for his campaign against stand-alone authority, venturing from Augustine to Aquinas, and adding the common opinion of medieval jurists. His only argument that did not derive from authority criticized that even the most exorbitant moral views became tenable on the basis of stand-alone authority, because there was always at least one doctor who endorsed even the most exotic positions. Nevertheless, Fagnani admitted that the authority of a single notable (*gravis*) doctor could render an opinion probable, if it was not rejected by equally notable opponents. This was usually only the case with new claims, which had not yet sparked controversy or were supported by convincing arguments. In other words, Fagnani concurred with moderate probabilists with respect to the main cases in which a single doctor's opinions were *prima facie* probable.

Giulio Mercori (deceased 1669), another leading anti-probabilist, limited his discussion of the 'one against many' setting to cases in which a single author introduced new claims and arguments. He conceded that under certain conditions, the opinion of a single doctor might remain probable even if opposed by the authority of many others. As usual, for most probabilists and all anti-probabilists, the doctor in question had to satisfy a list of requirements designed to assure his competence and the quality of his teachings. His doctrine had to be perspicuous (*doctrina clarus*), as was usually the case for the doctrines of scholars who, with public acclaim, taught at excellent universities and whose writings or decisions were commonly appreciated by prudent persons. Moreover, the doctor in question had to be living a decent life and enjoy a good reputation. A new opinion of such a doctor had to be supported by palpable and firm reasons, which had not yet been considered or debunked by other doctors. On the contrary, the reasons for the (prevailing) common opinion had to be evidently debunked by the doctor who introduced the new teaching.

Mercori's conditions for the introduction of a new probable opinion by a single innovator against an incumbent common opinion are quite restrictive. Outside the domain of mathematics, the evidence requirement for the reasons supporting the new opinion was difficult to satisfy. In the eyes of Mercori, a Dominican and inquisitor, Aquinas' 'one against many' position in the

⁴⁸⁶Lacroix (1707: 70), tom. 1, q. 25, §5, n. 159.

thirteenth century may have been probable from the beginning, because—to his pupils—he evidently had the better arguments and the right answers to the reservations of his opponents. It is also tempting to draw a parallel to Descartes' extraordinary claims of evident truth for his philosophy. For Mercori, such claims were a prerequisite for a *bona fide* legitimate attack on a dominant academic orthodoxy. If you dared challenge what all others considered to be true, you had to claim that palpable arguments were on your side.

One of the most interesting anti-probabilist challenges to stand-alone authority was raised by Miguel de Elizalde (1617–1678), who based his argument not on the authority of great dead scholars, but mainly on what today is called an error analysis. Elizalde's concept of (epistemic) authority differed significantly from most older scholastic approaches. He did not deny the authority of learned and decent scholars (*homo doctus et probus*) but considered this criterion as a mere proxy for another more proper one. For Elizalde, probability-conferring authority in a final resort depended on the propensity of a person to assert truths. Probability-conferring authority could therefore only be ascribed to a person who regularly or at least in most cases (*ut frequenter*) arrived at true judgments in a field of expertise. However, Elizalde did not ascribe probability-conferring authority to a person who was merely more often right than not. The person clearly had to be able to find the truth in an overwhelming percentage of cases to be an authority in a field of inquiry (although Elizalde did not mention a specific numerical percentage). Theologians were hence not authorities in astrology, and astrologers not in theology, as Elizalde explained, quoting the old adage that an expert is to be believed only in his own art. Was this a veiled criticism of theologians' condemnation of Copernicanism? Elizalde's example (published 1670) must have rung a bell with Catholic scientists in particular, many of whom still struggled with the condemnation of Galilei.

Given Elizalde's focus on the propensity of a scholar to find the truth (or conversely, to err), it is not surprising that he conceived epistemic authority along the norms of testimony and witness authority. In scholastic jurisprudence, one witness conferred prudent acceptability on a claim, and two rendered the truth of the claim practically certain. Probabilists used these norms as a basis for conferring probability to the opinion of a single doctor, because for them, probability corresponded to prudent acceptability.⁴⁸⁷

⁴⁸⁷See Bresser (1638), lib. 3, cap. 3, n. 26.

Elizalde, on the other hand, pointed out that a witness' statement did not retain its value if countered by the statement of another witness. *Prima facie*, if nothing was known about the quality of the witnesses, two such statements cancelled each other out. For this reason, the Possessor Principle ('In doubt, the position of the possessor is better'), on which probabilists relied, played a different role in law and probable reasoning. In cases of disputed ownership, the possessor of a good might be entitled to retain the good, but not due to the probability of a favorable witness statement, but because of the prerogative of a possessor in doubt, a doubt that was caused by conflicting witness accounts about the ownership of the good. In moral theology, in contrast, the Possessor Principle was to safeguard the possession of probable opinions, erroneously assuming that both-sided probability was possible despite a clash of equally strong reasons.

Moreover, if a stand-off of witness statements led to a nullification of their claims, this was a *fortiori* true, as Elizalde argued, for the single doctor in the 'one against many' cases of scholarly disagreement. Generally, it should be assumed that *ceteris paribus* the view of a greater multitude was more often true, because it is more difficult (*difficilius*) for many to err than for a few, if all judges have similar competence. Hence, in the case of one claimant against many, we have *ceteris paribus* reason to assume "one voice, no voice" (*dictum unius, dictum nullius*), under the condition that the 'one voice' is not pre-eminent enough to equal or even outweigh the countervailing multitude of voices. The latter was a common caveat of anti-probabilists, but as Mercori made clear, the pre-eminence of an author was not simply to be presumed, but must arise from convincing and undisputed reasons.⁴⁸⁸ Elizalde's error analysis, which claimed that single authors should be expected to err more often than multitudes of authors, hence dealt a significant blow to stand-alone authority as conceived by probabilists.

The importance of error analysis in the most sophisticated phase of the probabilism debate around 1670 is indicated by the fact that probabilists also used this instrument for their purposes. Anthony Terill (1621–1676), one of the subtlest theorists of probabilism, focused not on the comparative likelihood of error in a 'one against many' setting, but on the assumption that a growing number of independent, concurring judgements reduced the likelihood of their being wrong. The precondition of independent reasoning was important, as scholastic authors had long recognized, because majorities

⁴⁸⁸Mercori (1658), pars. 3, art. 30.

or multitudes did not increase the probability of an opinion if doctors followed each other like sheep or flying birds.⁴⁸⁹ Hence, the insistence on the quality of a doctor and that he form his position through a solid process of reasoning. Accordingly, Terill claimed that three or four independently reasoning experts, whose opinions converged, could hardly be in the wrong if they ascribed weighty reasons to their judgment.⁴⁹⁰ This was particularly true if Elizalde's assumption is accepted that a person needs to almost always be right in a subject area to count as an expert in this area. Terill did not use modern probability theory in his considerations, but given a probability of at least 0.95 for an expert to find the truth, the probability that four independently consenting experts err is smaller than $0.05^4/(0.05^4+0.95^4) = 7.67 \cdot 10^{-6} = 0.00000767$.⁴⁹¹ For a threshold of 0.99 for being right, the respective probability of error for all four is smaller than $1.04 \cdot 10^{-8}$. Hence, Terill was right in assuming that the likelihood of a fourfold error was negligible. In general, Terill assumed for a 'one against many' setting that is was more likely that a single doctor had overlooked a mistake in his reasoning than that all the others were wrong. He was therefore no exponent of stand-alone authority in its most daring version. However, as shown, it is *prima facie* very unlikely that three or four competent and diligent scholars, who reason independently, commit the same mistake. Hence, a small number of independent supporters suffices to render an opinion probable. But what about the multitude of opponents? Should Terill not have taken them into account, as Elizalde and Condorcet after him did (see Section 6, this chapter)? The problem is that in a controversy, the antagonists usually weigh arguments differently. We should therefore expect reasonable disagreement concerning the weight of arguments on both sides. In a 'few against many' scenario of expert disagreement, it is unlikely that the few commit a simple reasoning error, and it is likely that the disagreement in question involves different

⁴⁸⁹See Azpilcueta (1593), cap. 27, n. 289: "Quantum, quod non videtur una opinio appellanda communis, ad effectum praeiudicandam alteri eo solo, quod plures eam sequantur tanquam oves aliae alias, quae praecedunt sine iudicio sequentes, velut aves, quae unam volantem aliae omnes sequuntur". See also Bresser (1638), lib. 3, cap. 3, n. 32. Moya (1670), tract. 1, q. 1, n. 5; Gualdo (1707), cap. 18, n. 21, and in a similar vein, Vazquez (1606), disp. 62, cap. 2, n. 5.

⁴⁹⁰Terill (1669), q. 6, ass. 7, demonstratur 3.

⁴⁹¹According to Bayes-Theorem, $P(\text{error} | \text{consensus}) = P(\text{error} \cap \text{consensus})/P(\text{consensus})$. The assumed thresholds of 0.95 and 0.99 are arbitrary and chosen for the sake of argument. However, they are inspired by modern thresholds of significance for statistical hypotheses. Jakob Bernoulli assumed the value of 0.999 for moral certainty (Bernoulli 2006, bk. 4, cap. 1). If the judgment of the four consenting experts only needs to be morally certain, their individual error proneness should not exceed 15%. This is not a very restrictive condition.

theoretical perspectives or different valuations of the reasons for both sides. In disputes about matters of fact, one side will nevertheless be wrong, but it is unclear whether the experts' opinions can be aggregated regardless of the chasm of reasonable disagreement about the right perspective or the weight of reasons. This problem requires further discussion, and we will return to it after the modern Condorcetan view on expert votes has been introduced below. For the moment, it may suffice to note that at the most sophisticated stage of the probabilism debate, both sides relied on error arguments. Neither Elizalde nor Terill framed their error arguments in terms of modern numerical probability. However, Terill could have done so in a rudimentary way. He quantified chances and used urn models in defense of probabilism. That is, the step from the probabilism debate to modern notions of probability became quite small in the second half of the seventeenth century. (Chapter 12 will discuss how the scholastic probability discourse in this period helped frame modern probability).

4. Numerical thresholds of extrinsic probability

Many anti-probabilists shared Terill's view that a certain number of ordinary, decent, and learned supporters were required to render an opinion *prima facie* probable. The idea of such a quorum of n supporters is interesting from a modern perspective, not least because it is formulated in absolute numbers and not, as is often the case today in expert disagreement, with reference to a percentage of the body of experts.

Different authors assumed different numerical thresholds for extrinsic probability, and apparently, no concerted effort was made to establish a universally accepted quorum. Terill, as stated, assumed that three or four doctors rendered an opinion externally probable. He argued with the avoidance of error, but actually, it is unclear why his threshold and not some other (e.g. two or five doctors) should be chosen. Without statistical assumptions and maximal likelihoods of errors, that is, mathematical techniques that were still beyond the horizon of Terill's contemporaries, his threshold is merely arbitrary and it is hardly surprising that alternatives existed. The anti-probabilist Tirso Gonzalez suggested a quorum of four to

six authors for conferring probability.⁴⁹² Jean-Baptiste Gonet, another anti-probabilist, set a high quorum with ten to fifteen concurring doctors for the external probability of an opinion.⁴⁹³

Numbers of authors were also used as an indicator for common opinions. The quorum for a common opinion established a benchmark for the number of consenting authorities that rendered an opinion probable, because common opinions were by definition presumed to be probable. The anti-probabilist Louis de Schildere assumed that six, seven, or eight classical authors sufficed to render an opinion common, but more supporters were required in the case of non-classics.⁴⁹⁴ This is an echo of Martín de Azpilcueta's view, who called for the votes of six or seven classical authors, who *ex professo* dealt with an issue, to form a common opinion, or otherwise eight or ten notable and judicious defenders, who need not be classics.⁴⁹⁵

Usually, no justification was offered or requested for the mentioned numbers of authors for rendering an opinion probable or common. This is unusual because the antagonists in scholastic debates had a habit of questioning their opponents' assumptions. It seems as if the participants in the debate accepted that specific thresholds could not be justified with cogent arguments and were thus a matter of an experienced theologian's inexplicable judgment. For some thresholds, analogies to established regulations may have played a role. The Pope, for instance, was requested to not make intricate theological decisions without asking competent advisors for their opinion. According to some canon lawyers, the Pope was entitled to proceed after asking counsel from four to five cardinals in matters that could without great difficulty be solved by reading the Holy Scripture.⁴⁹⁶ Unfortunately, proponents of thresholds for extrinsic probability did not openly link their assumptions to such possible precedent. Martin Bresser used the familiar legal rule that two witnesses sufficed for proof to solve the problem of the probability of probability statements. However, a two expert threshold seems to not have played any conspicuous role in the larger debate on extrinsic probability.

Against this background, it seems understandable that some authors did not assume a specific threshold of external authority and apparently handled

⁴⁹²Gonzalez (1694), diss. 3, n. 48.

⁴⁹³Gonet (1700), tom. 3, diss. de conscientia probabili, art. 4, n. 71.

⁴⁹⁴Schildere (1664), tract. 2, cap. 1, n. 13.

⁴⁹⁵Azpilcueta (1594), cap. 27, n. 289.

⁴⁹⁶See Horst (1978: 74).

it as a matter of circumstantial judgment. Some authors even explicitly denied that setting a specific threshold made sense. For various n , Juan Cardenas offered a long list of counter-examples to the probability of opinions with n authoritative supporters. Claude Lacroix used this list of apparently improbable opinions to argue that a quorum of 5, 6, 7, 8, 9, 10, 12, 13, 16, 25, 28, or 40 authors did not suffice to render an opinion probable. He concluded that, in general, no specific threshold can be justified.⁴⁹⁷ Such views help explain the low normative import of numerical thresholds of extrinsic authority. The Catholic Church apparently never authoritatively fixed the number of competent scholars that were necessary to render an opinion *prima facie* extrinsically probable. Moral theologians could therefore operate with the threshold they favored, without having to fear official sanctions. The most significant fact about numerical thresholds of authority is thus perhaps that absolute numbers were preferred over relative percentages of an expert body. For some not explicated reason, the discussion on extrinsic probability focused on absolute thresholds almost without exception and without question. Tradition may have played a role, but why did the scholastic tradition remain so uniform on this issue and not on others? We might speculate about reasons of practicability. An absolute numerical threshold could more easily be applied in premodern theological practice, given that it was next to impossible to survey the opinions of all moral theologians, and nobody at the time had an idea yet of the concept of a statistically representative sample. It was also not clear, as the various positions in the probabilism debate document, who should belong to the community of authorities. These problems of inclusion or exclusion also, of course, afflicted absolute thresholds, but could be handled *ad hominem* for a handful of authors, which was not the case for anonymous percentage values. On the whole, absolute thresholds may have been advantageous for implicit pragmatic reasons, but the main question of interest for us is, of course, whether they made epistemological sense, and we will now approach this question with a discussion of the views that emerged outside the scholastic tradition.

⁴⁹⁷Cardenas (1670: 133), disp. 11, cap. 2, art. 7 and passim; Lacroix (1707: 64), tom. 1, q. 23, n. 136.

5. *The early modern philosophical avant-garde on stand-alone authority*

Modern views on the epistemic superiority of majorities over minorities developed in very different directions. In the eighteenth century, the Marquis de Condorcet mathematically modelled how truth can be approached through the aggregation of opinions. He thus justified epistemic majoritarianism, the view that majorities of competent judges are more likely right than the countervailing minorities. In the seventeenth century, however, more than a few avant-garde philosophers propagated the view that boldly theorizing individuals, such as Copernicus, were often more right than the vast majorities of their (dull) opponents. This was, of course, part of a campaign to break the fetters of authority and turn the reasoning power of individuals into a lodestar of intellectual progress. Take, for instance, Hobbes who quipped that an intelligent person might as well throw a coin instead of trusting the opinions of others or even a majority of them.⁴⁹⁸ In the *Logic of Port Royal*, Arnauld and Nicole also denied that the opinion of the largest number of philosophers is the truest.⁴⁹⁹ Leibniz claimed that Copernicus' opinion, although held by him alone, was immensely more probable than the contrary opinion of the rest of humankind.⁵⁰⁰ Malebranche viewed previous authors only as 'prompters', that is, they ought at best to inspire us or give us occasion to develop our own thoughts and arguments, but they are not true authorities on whose judgement we may legitimately rely.⁵⁰¹ Descartes, of course, became famous for his method of first erasing all (fake) knowledge that we inherited on grounds of authority, and then erecting the edifice of reason anew on the basis of knowledge that was clearly and distinctly perceived by the reasoner himself. Oddly, however, in practical matters, to which Descartes' 'provisional' morality catered, he retained many guidelines of the scholastic past. In one of his letters, for instance, he commented on the

⁴⁹⁸Hobbes (1994: 482), Chap. 47: "[I]t is unreasonable [...] to require of a man endued with reason of his own, to follow the reason of any other man, or of the most voices of many other men (which is little better than to venture his salvation at cross and pile)". *Cross and pile* are the possible outcomes of the throw of a coin.

⁴⁹⁹Arnauld and Nicole (1996: 221), part 3, Chap. 20.

⁵⁰⁰Leibniz (1996), book 4, Chap. 2, §14: "At the time when Copernicus was almost alone in his opinion—that the earth travels around the sun—it was still incomparably more likely than the opinion of the rest of the human race".

⁵⁰¹Malebranche (1997: xli): "We consider previous authors as but prompters. We would be very unjust and vain, then, to wish to be listened to like doctors and masters".

forming of opinions on grounds of testimony. One warrantor sufficed, as he assumed, in matters of morality, but not in physics.⁵⁰²

Descartes consciously or inadvertently came close with this remark to the stand-alone claim of scholastic probabilists. As we have seen, it was their position that the voice of a single competent scholar had authority even against a ‘torrent of scholarly opponents’. Leibniz’s view that the opinion of a single great scholar, such as Copernicus, could be more probable than the counter-opinion of the rest of all mankind, would therefore not appear out of the ordinary for many seventeenth-century scholastics, except that they would not have applied it to Copernicus but to Augustine, Aquinas, or one of the great scholastics of their own age. Individual reasoning was also buttressed by the development of scholastic doctrines on the choice of opinions. Intrinsic probability, which largely relied on the reasons an agent could marshal himself, had become one of the pillars of scholastic probability in the late sixteenth century. Nonetheless, scholastic authors did not elevate self-reliant reasoning above authority with as much pathos as Descartes or Hobbes. Authority, which indirectly depended on competence and the strength of reasons that other persons can marshal, possesses a valid role in social epistemology in scholastic eyes. Apart from this point, however, the anti-majoritarian epistemological positions of the modern avant-garde in the seventeenth century did not differ too starkly from those of many scholastic contemporaries. An unbridgeable rift occurs only in comparisons with the most conservative currents in early modern scholastic thought. We have, however, seen that probabilism was a scholastic mainstream doctrine in the first half of the seventeenth century. As such, it had already prepared the ground for the above quoted statements of the anti-scholastic avant-garde.

Yet, what about the accusation of ‘wrong grounds of assent’, which Locke used to good effect against scholastic opponents? For Locke, probability had to rely on experience, that is, either on one’s own or on other persons’ testimony of their experiences.⁵⁰³ In contrast, the scholastic reliance on ‘learned and decent’ persons (*homo doctus et probus*) as warrantors of probability was indicative of a wrong understanding of probability according to Locke. In the scholastic tradition, a good warrantor or expert was characterized primarily by sufficient training in an art or science, identified by a track record of excellence (in the academic world, usually publications or a

⁵⁰²Descartes (1991: 233), Letter to Mesland, 2 May 1644.

⁵⁰³Locke (1990), book 4, Chap. 15, §4.

professorship), and a lifestyle that rendered him trustworthy. That is, expertise was largely ascribed on the basis of institutional criteria, whereas observational or ‘hands on’ experience did not suffice at the most general level of consideration.⁵⁰⁴ It could, however, become important in specific fields, such as confessional practice. As we have seen in Section 2, when moral theologians spelled out the criteria for a good expert in the field of practical morality, experience in dealing with real cases of conscience mattered. Nevertheless, if Locke’s insistence on experience is narrowly understood as referring to observation reports, practical morality is no longer a field in which true probability judgments might be formed. Such an interpretation reflects the modern view that no experts can exist in matters of morality.

Generally, however, the scholastic institutional approach is not obviously wrong. Academic training and excellence may be a valid indicator that a person’s judgment is probably correct in her field of excellence, just as the scholastics claimed, if the respective academic discourse is sufficiently veridical. Locke’s polemic against scholastic grounds of probability is therefore overblown, as already recognized by Leibniz, who suggested a more differentiated account.⁵⁰⁵ In the end, the scholastic view of probability did not suffer from allegedly ‘wrong grounds of assent’, but I dare to conjecture that its career in modernity outside the confines of scholasticism was rather forestalled by problems of quantification. The both-sided probability of the scholastics allowed for persistent reasonable disagreement on judged matters and could not easily be represented mathematically with the new calculus of probability.⁵⁰⁶ The future of probability and its applications was

⁵⁰⁴It is nevertheless important to realize that the expertise of non-academics was not utterly disregarded in the scholastic tradition. For the determination of just prices, for instance, experienced merchants were usually asked for an assessment (see Bukala 2014 with many references to the judgment of *virii boni* in economic matters). Observational statements of witnesses (*testes*) could also produce probability of opinions (see Rosoni 1995). Locke’s kind of testimony was therefore not ignored by scholastics, but there was no clear separation between general epistemic authority and testimony. Both could generate extrinsic probability (*probabilitas extrinseca*). *Testimonium* was often equated with authority or depended on it (see, e.g., Fonseca 1567, lib. 7, cap. 35; Izquierdo 1659, lib. 1, disp. 6, p. 147). The relation between the concepts *testimonium* and *auctoritas* in the scholastic tradition is complex and certainly less ill-guided as Locke wants to make his readers believe. It deserves a much fuller investigation than can be offered here.

⁵⁰⁵Leibniz (1996), book 4, Chap. 15, §6.

⁵⁰⁶Standard probability theory assumes that the probability q of truth for a proposition p and its negation $\text{non-}p$ add up to one (i.e., the probability of $\text{non-}p$ is $1-q$). If we follow the standard epistemological assumption that only propositions with probability $> .5$ can be assented as true, disagreement in which both p and $\text{non-}p$ can be assented by (different) reasonable persons cannot be represented in an unitary account because the reasons for p and for $\text{non-}p$ would ground justified probability ascriptions $> .5$ (and thus do not add to one). Today, this case can be

mathematical, and it was shaped by authors such as the Marquis de Condorcet, to whom we will now turn.

6. *Epistemic majoritarianism: scholastic and modern*

The claim that a majority of evaluators is more likely right than an opposing minority is today inextricably linked to the name of Marie Jean Antoine Nicolas de Caritat, Marquis de Condorcet (1743–1794). Condorcet was the first to prove this claim on the basis of a mathematical model. His proof, called the *Condorcet Jury Theorem*, relies on premises such as the propensity of evaluators to assert the truth more likely than falsehood. Some political scientists consider the Condorcet Jury Theorem to be a vindication of democracy, showing that a majority of voters is not only the best ultimate basis for political decision making, but also a guide to political truth (a dangerously elusive concept).⁵⁰⁷ In any case, Condorcet can be regarded as one of the prophets of modern democracy and modern values. Being an exponent of the late French Enlightenment, he argued for equality, rights, and universal suffrage, where older representatives of the Enlightenment had favored the *ancien regime*.

Condorcet's views on majorities in juries and elections are most fully expounded in his *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* (1785). In this mathematically demanding work, various questions on the probability of correct group decisions are discussed. Interestingly, most of them are epistemic questions, such as whether a majority or minority of competent jurors is more likely right regarding an issue requiring a certain amount of expertise. He also asked how large a majority must be for its decisions to reach a given level of confidence of truth. Condorcet, showing himself in this respect to also be an ancestor of modern theories of social choice, investigated these questions on the basis of some heroic simplifications. He assumed that all members of a jury or electorate

represented by non-standard theories of probability or formal models of plausibility (see, e.g., Friedman and Halpern 1995; Halpern 2003; Huber and Schmidt-Petri 2009; Shafer 1976). To the best of my knowledge, mathematical models of representing reasonable disagreement were not available before the twentieth century. Shafer (1978) discusses how Jacob Bernoulli struggled with the idea of non-additive probabilities.

⁵⁰⁷On epistemic democracy, see Estlund (2008); List and Goodin (2001); List and Pettit (2002); McMahan (2009).

had the same probability of attaining the truth with their votes, that all members had equal weight, and that the votes were cast independently of each other, that is, no voter followed the vote or the opinion of others.⁵⁰⁸ A further underlying assumption was, of course, that the issue on which a vote was cast allowed for truth and error. The prime example are jury decisions on guilt in criminal cases. Whether political decisions are of this kind is, as indicated, a disputable matter. Yet this question is presently not of primary concern for us, although we will broach it below. For simplicity's sake, we will only deal with jury or electoral decisions that allow for truth and error.

Under the stated assumptions, the probability of a correct majority vote can be straightforwardly approached with a mathematical model. Condorcet's own approach is not as simple as it could have been, and I hence resort to a reconstructed representation. Let $n = 2k+1$ be the (for simplicity's sake uneven) number of voters or members of a jury, and $p > 0.5$ the probability of each juror to be right. Then the probability of $x > k$ jurors to be right can be calculated using a binomial distribution.⁵⁰⁹ A comparison with the probability of a correct judgement of $x < k+1$ jurors shows that the former is always larger. In other words, a majority will always be more likely right under the assumed conditions than a minority.

Condorcet realized that this result (and related results) did not really tell him much about elections and jury decisions in practice. In part four of the *Essai*, he therefore relaxed his premises to some degree to achieve better applicability. He for instance softened the assumption of equal competence (i.e. equal probability) of experts, and the assumption that the votes were cast without mutual influence. Both modifications have been further investigated in recent research on the Jury Theorem, but they need not distract us presently.⁵¹⁰ Most significant in the present context is what Condorcet has to say about the origins of the view that a majority is more likely right than the opposing minority in matters of truth.

In the introductory *Discours preliminaire*, which prepares and summarizes the mathematical parts of the *Essai*, Condorcet reminds his readers that decisions by ballot had been customary since antiquity. The ancients had already used this form of decision making for expressing the will, interests, or passions of a collective. They did not envisage it as a means of

⁵⁰⁸Condorcet (1785: pp. xxi).

⁵⁰⁹That is, the probability $P(n)$ of the majority of n jurors being right is $P(n) = \sum_{i=k+1}^n (n!/(n-i)!i!) p^i(1-p)^{n-i}$.

⁵¹⁰For a present-day investigation along these lines, see, e.g., Estlund (1994).

approaching truth. A truth-revealing role of ballots was first conceived in “modern nations” under the influence of scholasticism, which introduced “a spirit of reasoning and subtlety”.⁵¹¹ Hence, Condorcet was fully aware that the question of a majority’s epistemic status had been broached by scholastics. Admitting this fact is a sign of intellectual honesty on Condorcet’s part, because he ardently detested all things scholastic and ecclesiastical. No Enlightenment philosopher was more Manichean than Condorcet in contrasting his epoch’s dawning era of light with the dark and benighted Middle Ages and its habits of thought. His *Esquisse d’un tableau historique des progrès de l’esprit humaine* (1794) is one of the most propagandistic and undifferentiated panegyrics on the eighteenth century as an age of reason ever written. Appreciating the analytical subtlety of scholasticism against the background of his own worldview is a sign that Condorcet attempted to be fair, his unbridled enthusiasm for all things enlightened notwithstanding.

Condorcet was, of course, right in tracing the question of an epistemic value of juries and elections to scholasticism. Discussions on voting procedures had already occupied medieval theologians and canon lawyers. For varying contexts, they disputed whether unanimity, a majority, or the vote of a ‘larger and sounder part’ (*major et sanior pars*) of a collective, that is, a weighted majority, was the appropriate quorum for a decision.⁵¹² Since ancient times, unanimity had been the aspired outcome of decision making and deliberation in the Church. But unanimity was not always attainable. Roman law, which authorized majority decisions, created a precedence for considering the vote of a majority as representative of the decision of the entire collective. In many cases, however, ancient and early medieval regulations accepted the vote of the *sanior pars*, the sounder part of a collective, as being decisive. The sounder part was ideally conceived as the part with greater authority or better reasoning, it did not have to be superior in numbers. The epistemic quality of deciders was, of course, a matter of interpretation in practice, which allowed popes and kings, who often were the final arbiters in these matters, to favor the side that suited them best. This option was an obvious reason why adherence to ‘the sounder part’ became so prominent.

⁵¹¹Condorcet (1785: iii): “Dans les Nations modernes, où la Scolastique introduisit un esprit de raisonnement & de subtilité, qui peu-à-peu s’étendit sur tous les objets, on aperçoit, même au milieu des siècles de ignorance, quelques traces del idée de donner aux Tribunaux un forme qui rende probable la vérité de leurs décisions”.

⁵¹²The following remarks on ecclesiastical decision procedures are mainly based on Ganzer (2000).

The tradition of medieval jurisprudence, which grew into a mighty edifice after the twelfth century, limited the interpretation of soundness to some degree. No privileged arbiter of soundness existed in papal elections, and disputes about soundness could therefore continue indefinitely, for which reason a majority criterion was established in this context. A two-thirds majority of cardinals became the quorum for the election of a pope. But even more generally, soundness alone often no longer sufficed as a decision criterion in the eyes of scholastic lawyers and was combined with majority. Thus, the famous claim arose that the ‘larger and sounder part’ (*major et sanior pars*) should prevail. The claim indicated that numbers and soundness both counted, so that achieving a weighted majority became the aim, with majoritarian considerations functioning as a brake on too free-wheeling interpretations of soundness. In practice, this implied that a very small minority was unlikely to be declared as so exceptional that it could outweigh a very large countervailing majority in ecclesiastical elections. In fact, it became established practice in canon law to consider a two-thirds majority as sufficient to exclude the presumption that the other side might be sounder.⁵¹³ The most important finding for the present context, however, is that the interpretation of ecclesiastical decisions was often overtly epistemic. Questions of faith and morality are questions of truth in the Christian tradition. Insofar, majorities or the ‘larger and sounder part’ in ecclesiastical decision making had always functioned as guides to truth. Condorcet was absolutely right in this respect – epistemic majoritarianism was no new phenomenon.

Despite their existence in canon law, voting thresholds seem to have played no role for scholastic approaches to the choice of probable opinions. For instance, there seems to have been no attempt to prescribe that opinions which were held by more than two thirds of an expert community had to be considered as more probable than their negation. In the court of conscience, the rules for ecclesiastical elections were not valid. Nevertheless, we find early allusions to epistemic majoritarianism in works on the governance of consciences. Konrad Summenhart touched upon majoritarian issues in his list of rules for the choice of opinions. Rule five states that one should *ceteris paribus* adopt an opinion which is supported by a larger number of competent evaluators, because “*ceteris paribus a majority is more to be adhered*”.⁵¹⁴ In a

⁵¹³See Ganzer (2000: 12) with reference to adoption of this rule at the council of Lyon in 1274.

⁵¹⁴Summenhart (1580: 562), q. 100: “*Nam ceteris paribus magis adherendum est pluralitati*”.

similar vein, Summenhart's contemporary John Major advised that it is better to follow a common opinion of the wise than the opinion of only a few.⁵¹⁵ Neither Summenhart nor Major explicitly claimed that the majority view is *ceteris paribus* better because it is more likely true. This epistemic dimension needs to be assumed for the respective statements because it was generally present in the respective scholastic discourses. Insofar, we are still a step away from fully self-conscious epistemic majoritarianism.

It should also be noted that Summenhart and Major, two key authorities for the subsequent development of scholastic doctrines for the choice of opinions, introduced the superiority of majority opinions cursorily as a rather obvious *ceteris paribus* assumption. Its *ceteris paribus* status implies that it was only valid if no further information was available on the quality or weight of the experts in question, or collusion among the experts, or some other relevant impediment. The practical bent of scholastic doctrines of choosing opinions ensured that a wealth of interfering conditions could limit the precedence of majorities. However, if relevant impediments were absent, a presumption in favor of majority opinions was characteristic of scholastic thought.

Echoes of Summenhart's or Major's *ceteris paribus* preference for majorities can be found throughout the sixteenth century, for instance, in the work of Antonio de Cordoba, who explicitly linked a preference for the view of 'the multitude' to Aristotle's topical definition of probability.⁵¹⁶ Pedro da Fonseca also connected the views of a multitude to probability 'in virtue of others' (that is, extrinsic probability) in his treatise on dialectic.⁵¹⁷ But these examples should not distract from the fact that agents were often told to not prefer the opinion of a majority without further considerations, because the minority often had better reasons and a sounder title to be right. Melchor Cano warned that numerical superiority was an insufficient ground for enforcing a view wherever a competent minority had reasons for dissent.⁵¹⁸ If there was a presumption for the majority, it was tenuous at best. In any case, the nexus between multitude and probability in Cordoba and Fonseca

⁵¹⁵Major (1516), prologus, q. 2, concl. 5, fol. 3: "Prudens debet sequi communem opinionem sapientium, tam in materia fidei quam morum, potius quam paucorum".

⁵¹⁶Cordoba (1604), lib. 2, q. 3, causa 5.

⁵¹⁷Fonseca (1567: 332), lib. 7, cap. 6.

⁵¹⁸Cano (1574), lib. 8, cap. 4: "Videlicet in scholastica disputatione plurium auctoritas obruere theologum non debet, sed si paucos viros modo graves secum habeat, poterit sane adversum plurimos stare. Non enim numero haec iudicantur, sed pondere".

document that a preference for a majority opinion was regarded as an epistemic question by these authors.

If we move closer in time to the debate on probabilism in the seventeenth century, different developments can be observed. Martin Bresser pointed out that trust in the authority of numbers and majorities was often unwarranted.⁵¹⁹ Numbers of authors did not count much if they followed each other like sheep. This was the traditional caveat, already formulated by Dr. Navarrus (Azpilcueta) and Gabriel Vazquez, as Bresser himself noted. Moreover, additional supporters did not increase the probability of an opinion much, which already had a handful of supporters. Unfortunately, Bresser offered no arguments for this important claim. In the end, however, he assured his readers that a multitude of supporters rendered an opinion *prima facie* probable. Francesco Bardi devoted an entire chapter of his treatise on moral theology to the question how much the number of supporters boosts the probability of opinions.⁵²⁰ He recognized the problem that authors tended to follow each other like sheep, and warned against accepting a plurality of supporters at face value, a mistake he linked to the Aristotelian endoxical concept of probability. Nevertheless, for him too, a multitude of doctors in support of an opinion created at least a presumption of probability.

Juan Sanchez d'Avila (active around 1620) approached the relationship between a multitude and probability more innovatively by comparing two kinds of cases. In the first case, three doctors disputed an issue, with two defending an opinion against the third. In the second case, thirty doctors dealt with the same issue, sixteen being of an opinion and fourteen holding the opposite.⁵²¹ Sanchez argued that the absolute numbers say nothing about the differences of probability which the majorities in both cases engender. The opinion of the two authors in the first case is *ceteris paribus* to be considered more probable than the opinion of the sixteen in the second case. This looks like a first attempt at assessing the effect of relative support, or majority by percentage, on the probability of propositions. Sanchez rightly assumed that the effect of a given numerical majority becomes smaller as the number of involved doctors rises. Yet he did not support his conclusion with an explicit argument, nor could he solve the problem mathematically – given that the

⁵¹⁹Bresser (1638: 260), lib. 3, n. 32.

⁵²⁰Bardi (1650), disc. 4, cap. 2: “Quantum authorum pluralitas opinionum probabilitati faveat”.

⁵²¹Sanchez (1643: 322), disp. 44, n. 67.

first steps of modern probability theory still lay some years in the future when Sanchez's book was published.

The analysis of epistemic majorities received a boost when scholastics began to develop a frequentist notion of probability. Pietro Sforza Pallavicino, an influential Jesuit cardinal whom we have variously encountered in this book, set the trend. He combined the notions of probability and physical or moral necessity, assuming that although free agents might act against natural inclinations, the tendency represented by such inclinations never failed to show up in the frequency of a large number of actions.⁵²² Pallavicino claimed that probability can therefore be gleaned from a prevalence of occurrences (*ex majoritate numeri*). For example, if an item (*individuum*) is to be selected from a collection, that is, a class of items, and the collection is divided into two subclasses of unequal size, it is morally necessary that the item is more often realized in the larger subclass.⁵²³ This was a first step to a modern frequentist understanding of probability and to a correct understanding of the relationship between majority and truth. Further steps in this direction were soon taken by Miguel de Elizalde. As discussed in Section 3, Elizalde explicitly based the authority of experts on their propensity to find the truth, and ascribed authority to a scholar who found the truth in a field of inquiry in an overwhelming number of cases. This represented a significant paradigm change relative to the traditional scholastic approach to expertise. Traditionally, expertise was ascribed on the basis of a track record of education, scholarly success, and decent conduct. A relation to the frequent truth of the expert's judgment was at best implicit in this framework. Elizalde, in contrast, turned it into the sole criterion of expertise. He therefore introduced a concept that was later used by Condorcet for his mathematical analysis. Elizalde did not quantify his claim that an expert had to be 'almost always' right in professional judgments, whereas Condorcet lowered the percentage of correct judgment to more than fifty percent and could thus operate with a specific threshold in the derivation of the Jury Theorem.

It deserves to be noted that Condorcet did not limit his analysis to expert judgment when formulating the Jury Theorem. His remarks about the required enlightened status of the public, from which the jury is selected (or which has the vote in elections), show that his requirement of a more than

⁵²²For a detailed treatment of this nexus and Sforza Pallavicino's role in establishing it, see Knebel (2000).

⁵²³Sforza Pallavicino (1649: 471), lib. 2, cap. 6, n. 117.

fifty-fifty chance to attain the truth was designed to include ordinary people. The required probability of finding the truth was, in Condorcet's view, only to be expected of them in societies that were sufficiently enlightened.⁵²⁴ Hence, Condorcet assumed that democracy did not suit unenlightened societies, and that it was important to further enlighten France to make it fit for democracy. In contrast, Elizalde only dealt with the foundations of expertocracy. Hence, his more demanding requirement that the assumed evaluators need to be right *ut frequenter*, that is, in by far most cases.

On this basis, Elizalde explicitly claimed that it was *ceteris paribus* more often true what the greater number says.⁵²⁵ Using correct qualitative reasoning, he therefore arrived at the insight that was later proven with the Jury Theorem, for which Elizalde lacked the mathematical means. Note that Elizalde's reasoning, especially concerning the underlying epistemic issues, went far beyond the plain older view that *ceteris paribus* the majority view should prevail, or that the majority *ceteris paribus* possesses greater authority. Elizalde explicitly maintained that it is 'more difficult' for many to err than for a few of similar constitution. The terminology of 'greater ease' (*facilius*) or greater difficulty (*difficilius*) in obtaining a result, which Elizalde here used, is also characteristic of the first mathematical writings on probability. It occurs, for instance, in Huygens' and Bernoulli's works.⁵²⁶ At least a notable part of the conceptual preconditions for epistemic majoritarianism and for Condorcet's Jury Theorem, if not the mathematics, was therefore developed in the scholastic tradition. Scholastic authors of the Baroque era like Elizalde held a recognizably modern form of epistemic majoritarianism, based on individual likelihoods of error, or conversely of attaining truth. What is lacking is merely the math, that is, the ability to formulate and prove epistemic majoritarianism with a mathematical model and probability theory. This significant further step was the achievement of Condorcet. However, the step hardly marks a discontinuous quantum leap, but represents, as Condorcet himself indicated (without referring to any scholastic author in person), a gradual transition from older to new positions by quantifying a pre-existing doctrine.

⁵²⁴Condorcet (1785: xxv): "on voit qu'il peut être dangereux de donner une constitution démocratique à un peuple sans lumières".

⁵²⁵Elizalde (1670), pars 1, lib. 2, q. 19, §1: "similiter plerumque verum est coeteris omnibus paribus, quod plures dicunt; difficilium est multos falli, quam paucos similes".

⁵²⁶See Sylla in Bernoulli (2006: 24) on an example of his use of *aeque facile*; and Freudenthal (1980: 116) for Huygens.

6.1 Digression: Epistemic democracy

The continuity between the qualitative, prima-facie majoritarianism of seventeenth-century scholastics and Condorcet's Jury Theorem should not veil significant differences concerning their practical relevance – or at least intended application. Condorcet considered his mathematical analysis of voter decisions as a vindication of the advantages of democracy for an enlightened body of citizens. The epistemic aspects of his argument were not immediately appreciated, largely because of the limitations of Condorcet's model which hardly allowed for an application to practical politics. The rise of mathematical economics and social choice theories in the twentieth century has changed this outlook. Advocates of 'epistemic democracy' now look back to Condorcet as a founding father of their theories. Epistemic democrats view majority decisions and democratic political procedures not only as ways to aggregate the will and interests of a population, but also as roads to truth.⁵²⁷ They contend that political decisions are often factually right or wrong. Economic policies, for instance, support or impede economic growth, although it might be difficult to verify their respective effects. Some political theorists go further and consider even the justness of policies to be a matter of truth or error. In all these cases, Condorcet's Jury Theorem and its modern cognates indicate that democratic majoritarian choices are more likely linked to truth than falsehood.

The epistemic approach to democracy also has its fair share of critics, who deny that in practice democratic procedures track truth in even modestly reliable ways. The counterfactual nature of most of the Jury Theorem's premises offers sufficient grounds for such criticisms. In particular, it is usually not possible to ascertain that real voters possess a better than equal probability to form true political opinions, because there is no independent standard for assessing the factual correctness of a decision. With respect to the success of economic policies, for instance, the opinions of economists are often as divided as the opinions of the voters, so that there is no neutral, universally accepted standard for assessing the truth of a majority opinion. That said, we

⁵²⁷On epistemic democracy, see Estlund (2008); List and Goodin (2001); List and Pettit (2002); McMahan (2009).

do not need to venture deeper here into the debate on epistemic aspects of democratic decision making, because we are mainly interested in parallels to scholastic doubts concerning epistemic majoritarianism. As shown, scholastics shared the epistemic perspective on majority decisions and majority opinions with modern epistemic democrats. But from a scholastic point of view, majorities only justified a weak epistemic presumption, which did not count for much in practice. One of the main reasons for this cautious view was the acceptance of what today is called a pluralism of opinions and reasonable disagreement. That is, minorities of competent evaluators were reasonably entitled to retain their opinions despite realizing that the majority favored a counter-opinion. Seventeenth-century moral theologians found it difficult to harmonize this assumption with a pronounced epistemic majoritarianism. They generally stuck to their brand of pluralism and toned down the epistemic aspirations of majorities.

Modern defenders of the possibility of reasonable disagreement in politics have similar qualms with the claims of epistemic democracy. They argue that citizens need not believe to be wrong simply because they happen to be in the minority concerning some political issue.⁵²⁸ If this premise is sound, something must be wrong with epistemic majoritarianism, which would imply that a minority is *ceteris paribus* more likely wrong than right in a factual issue. Let us assume that the minority knows about this result. Hence, each member of the minority would also know that she is more likely wrong than right in virtue of being in the minority. The person in question could then not consistently uphold her opinion as true, because she would recognize it to be more likely false than true. Conversely, if we consider it rationally acceptable to retain minority opinions, the premises of epistemic majoritarianism must be wrong. That is, epistemic majoritarianism must be wrong at least under practically relevant circumstances if a minority may reasonably stick to her opinion.

7. Conclusion

The more radical versions of stand-alone authority in seventeenth-century probabilism document how tenuous the authority of common opinions or ‘the

⁵²⁸See Berg (1996); Ingham (2013).

larger and sounder side' had become by that time. The opinion even of a single competent scholar was to be *prima facie* considered probable due to the scholar's competence-based authority. This assumption was valid even if a 'torrent' of scholars, as it was sometimes called, opposed the single doctor's opinion. Moderate probabilists and anti-probabilists alike rejected such extreme forms of stand-alone authority. They attributed authority to a single scholar only if his opinions were virtually unopposed or insisted on checks for the quality of the single doctor in question, so that only outstanding scholars could attain stand-alone authority against a multitude of qualified others. This was still more lenient than to accept stand-alone authority against massed opposition only for giants like Aquinas.

It is conspicuous how well these developments dovetailed with claims of the seventeenth-century (non-scholastic) avant-garde in science and philosophy. Descartes, Leibniz, and others insisted that intellectual minorities or single outstanding innovators like Copernicus could be right against the received and approved opinions of the schools (that is, scholasticism). Rhetorically, the avant-garde broke with an authority-prone tradition in daring to favor the modern few against a majority of stubborn defenders of outdated views. They thus opposed conservative theologians and orthodox Aristotelians, who tried to block the innovations on which the scientific and philosophical avant-garde relied. However, the history of probabilism calls for a differentiation of this familiar narrative of modernization. Probabilism, which formed the mainstream of Catholic moral theology in the first half of the seventeenth century, already had licensed the stand-alone authority of scholars. In this respect, the non-scholastic avant-garde kicked in open doors at least concerning a considerable fraction of moral theologians.

Received or approved opinions in the sense of long held, ingrained, and established opinions had already lost their normative power over scholastic social epistemology before Descartes, Locke, or Leibniz attacked them. Insofar, a preference for the opinion of a few contemporaries against a 'torrent' of old-guard opponents was nothing out of the ordinary for early seventeenth-century scholastics (see also Chapter 7). This is not to say that such opinions inevitably gained the upper hand in scholastic controversies. A general epistemological permission to prefer minority views, and even novel ones, did not guarantee that these views were in fact generally accepted. In scholastic debates, as well as through papal intervention, the defenders of old opinions could (and did) often prevail. But we should not confuse the

outcomes of power struggles between different agents and networks in the Catholic Church with a methodological primacy of received opinions. Scholastic theologians had already steeply reduced the normative import of received opinions at the outset of the seventeenth century.

It is ironic that the idea of a small dynamic avant-garde that upsets the views of an inert majority has become an emblem of modernity, while, on the other hand, modernity in epistemology is often enough linked to a Condorcetan epistemic majoritarianism. According to Condorcet's Jury Theorem, a majority is, under certain conditions, more likely to find the truth than the opposite minority. Hence, how can the opinion of a single doctor or even of a small group of experts remain probable if a vast majority of equally qualified opponents holds a counter-opinion? Epistemic majoritarianism seems to disqualify the deviant opinion of a few scholars as not reasonably defensible (and thus as 'not probable' in scholastic terminology) if the scholars oppose a vast, equally qualified majority. Note that such considerations would have vindicated the disqualification of Copernicanism by the Catholic Church at a time when it was still a small minority opinion (as it presumably was in 1616, the time of its first condemnation). But how to get around the majoritarian conclusion?

An answer to this question can start from the simplifications which render the application of Condorcet's Theorem difficult in practice. Scholastic epistemic majoritarianism, which preceded Condorcet's, shares these simplifications (such as homogeneity of the jury members) but remains constantly aware that they do not fit real-life contexts. Above all, most scholastic theorists of the use of opinions accepted the view that an increase in probability of an opinion did not necessarily effectively diminish the probability of a counter-opinion. In many controversial issues, they thus accepted the legitimacy of disagreement between scholastic authors, who were all considered reasonable and well-informed contributors to a debate (that is, they were epistemic peers⁵²⁹ in modern terminology). Under the premises of reasonable disagreement, epistemic majoritarianism is not straightforwardly appropriate. After all, Condorcet's assumption that all who cast a vote find truth with a greater than fifty percent probability cannot be correct under such conditions. Only one of the underlying positions can be

⁵²⁹For the modern concept of epistemic peer, see, e.g., Douven (2009); Feldman and Warfield (2010), Introduction.

right, and voters who endorse the opposite approach cannot, therefore, find truth with a probability of more than one half.

Given that experts can endorse rival approaches to truth, of which one at best can be true, Condorcet's views on a general propensity to find truth appear ill-guided. They are only helpful from an ex-post or God's eye perspective, in which truth is known, but fail to tell us much about the reasonable ascription of expertise under realistic conditions of pluralistic dissent. Scholastic moral theologians were therefore probably right not to abandon their insights into a pluralism of opinions, and to retain both-sided probability (the possibility that two logically incompatible propositions could both be reasonably adoptable by epistemic peers, but not by the same person). The early theorists of modern probability, on the other hand, never showed how their approaches could account for reasonable disagreement concerning opinions. Without this step, the new calculus of probability was hardly qualified to supersede the old scholastic approach in areas of theology, jurisprudence, and philosophy where the recognition of a pluralism of opinions mattered.⁵³⁰ This problem was never convincingly resolved, but merely sidelined when the collapse of scholasticism in the eighteenth century cleared the road for modern probability. The problem therefore reappears in modern approaches to plausibility and judgment aggregation, where the standard view of modern probability theory is confronted with a host of non-standard alternatives, some of which accept both-sided plausibility.⁵³¹

Under conditions of reasonable disagreement, the position of a small group of independently reasoning experts seems as defensible as the position of a huge majority of experts. This may not be true if the small group comprises just a single person, but a handful of experts might suffice, as Anthony Terill showed. His argument against the stand-alone authority of scholars or experts focuses on the likelihood of a single expert's error. The likelihood of such an error *ceteris paribus* decreases rapidly with every added independent vote of another concurring expert. Terill does not take the voices of opponents into account, that is, he implicitly assesses expertise from the perspective of the supporters of an approach. Dissenting voices from adherents to rival approaches fail to undermine these supportive views if reasonable disagreement concerning the approaches remains possible. Under

⁵³⁰The influence of both approaches can still be detected in Kant's understanding of probability and opinion, see Chignell (2007); Pasternack (2014).

⁵³¹See Friedman and Halpern (1995); Halpern (2003).

these premises, three or four independent experts who arrive at the same result suffice to show that a mere reasoning error is exceedingly unlikely. The same logic guides modern practices of scientific review, where two or three diligent reviewers are deemed sufficient to limit the risk of reasoning errors in publications. (Review processes with three to four reviewers (*revisores*) were well-known to Terill because academic publications by Jesuits usually underwent such processes.)⁵³²

On the whole, Terill seems right. The opinion of a single scholar should not straightforwardly be considered reasonably adoptable if it conflicts with the considered judgment of a vast majority of others. In this case, the risk of a reasoning error of the deviant scholar is too high. But if three or four competent others check the single scholar's reasoning and find it faultless, or are independently convinced by the same reasons, the position in question may become reasonably adoptable, regardless of the number of opponents. Massive opposition then only signals that an alternative reasonable position very likely exists, but it is so far not clear whether the number of adherents has any implications for the correctness of the alternative positions. This is an inconvenient result for epistemic majoritarianism. It depends, of course, on the assumption of a pluralism of reasonable positions and the acceptance of reasonable disagreement.

For similar reasons we should be skeptical that approval rates in a scientific community tell us much about the likely truth of alternative perspectives or theories in an ongoing controversy. The friends of minority views can adduce many scientific or academic success stories in which the positions of a few or only a single author finally became ruling paradigms. Modern scientists usually mention Copernicanism in this respect, whereas scholastics liked to refer to Aquinas' road to success from a condemned author in 1277 to a lodestar of Catholic theology. However, many diverse cases need to be accounted for. For instance, numbers of adherents might matter for the choice between long established approaches. If all the main arguments for and against alternative approaches have been thoroughly discussed, should not the one with significantly more adherents be deemed more likely true? The problem with such a suggestion is that long discussions in a community makes it practically impossible to control for the weight of social influences which do not track truth (e.g., personal sympathies, social bonds, etc.). Moreover, it

⁵³²See Findlen (2004); Fletcher (2011) and Siebert (2004) with special reference to the Jesuits and Athanasius Kircher, and ARSI Fondo Gesuitico 652–675 for several *censurae librorum*.

might also be considered a quality signal if a minority position withstands the argumentative effort of an opposing majority for a long time. The most critical case probably constitutes a minority position which was initially held by a fairly large minority, but shrank over time to a position of very few persons (the word *sect* may already be pejorative enough to prejudge the case). Yet such reflections lead us to a casuistry of epistemic ‘few against many’ stances and thus too far beyond the present inquiry.⁵³³ In sum, we may observe that the strong support in scholastic social epistemology for the views of often only a handful of experts, standing in opposition to a ‘torrent of scholars’, seems to be *prima facie* defensible, even if reconsidered from a modern point of view.

⁵³³See the related considerations of Pettit (2006).

Chapter 7: Ancient and Modern Opinions – Which to Prefer?

The seventeenth century was rich in debates on the status of ancient and modern authors. The most famous debate was, of course, the French *querelle des anciens et des modernes*, which had important repercussions in eighteenth-century Britain and Germany. The French *querelle* of the 1680s was a general debate about the relative rank of ancient and (near) contemporary writers, artists, scholars, and scientists, but with a clear emphasis on literary criticism. It has so far been neglected that Catholic moral theology in the seventeenth century was also marked by a quarrel between ancients and moderns, or rather between *antiqui* and *moderni*.¹ The moderns in this debate, also called the ‘recent’ or the ‘younger ones’ (*recentiores, iuniores*), were usually the authors from the last hundred years before an assumed ‘now’.² The *antiqui* (or ‘old ones’, *veteres*) had written their works more than a century in the past, and were thus not necessarily authors from antiquity or from the first centuries of scholasticism, that is, the twelfth and thirteenth centuries.

The quarrel between ancients and moderns in moral theology was a sub-debate of the larger controversy on probabilism. As an eighteenth-century observer summarized: probabilists tended to favor moderns, probabiliorists (and anti-probabilists in general) preferred the *antiqui* (whom I will, for simplicity’s sake, call ancients here – ancients are thus all deceased authors who are not moderns).³ The clash did not pertain to literary quality, but to the relative authority of modern and ancient theologians, and often boiled down to the question whether modern moral theologians held more authority in moral matters or the Fathers of the Church and the great medieval scholastics. In more than a few instances, however, authority in science and philosophy

¹There is some discussion in Colombo (2006: pp. 144); Neveu (1993: pp. 365); Quantin (1999: pp. 111); but I am not aware of any extended treatment of the issue. Tutino (2018) repeatedly characterizes probabilism as a modernizing doctrine and refers to a probabilist predilection for modern opinions.

²*Modernus* could be linked to a period from twenty (see Bordoni 1668, fund. 1, n. 14) to two hundred years (see Gualdo 1707, cap. 17, n. 1) before ‘now’. I choose a period of one century as a compromise in line with, e.g., Fabri (1670: 5): “recentiores (hoc nomine illos, qui a centum circiter annis scripserunt complectimur)”.

³Gualdo (1707), cap. 17, n. 1: “Probabilioristae moderni pro antiquis, probabilistae vero pro modernis pugnant”.

became part of the quarrel, because scholastic theologians, of course, wrote on these matters.

Many probabilists and casuists sought to propagate the most modern and advanced form of Christian morality, a morality that had only insufficiently be fleshed out by the ancients.⁴ Underlying this attitude was an idea of progress and the conviction that scholastic inquiry was a century-spanning, progressive intellectual enterprise whose later stages approached truth more closely than its beginnings. In this sense, notable probabilists maintained that truth was the daughter of time (*veritas filia temporis*) – truth was revealed by time and careful collaborative investigation.⁵ Note that this is not proof of a truly historically changing morality, and thus moral relativism. It only claimed that the moderns had a better grasp of an unchanging, God-given morality. However, authoritative moral opinions were replaced in this process by alternative probable opinions, and in so far moral change was actually brought about. In fact, the opponents of probabilism and of permissive currents of casuistry felt that too much change had already occurred, and in particular, too much deregulation. They ardently defended the superior authority of the Fathers of the Church and of the great medieval scholastics, who stood for a stricter morality, still untainted by a permissive Baroque spirit. In the end, no side could win a decisive victory in the scholastic row between ancients and moderns. In the first half of the seventeenth century, the advocates of the moderns advanced nearly unchecked, but in the second half, the defenders of the ancients recovered lost ground.

The story of this quarrel should interest us for at least two reasons. First, it documents that many probabilists were self-conscious modernizers, endorsing a scholastic version of the idea of intellectual progress.⁶ They did not only perceive scholasticism as a cumulative endeavor with an advancing research front, but explicitly postulated the superiority of modern authors over their predecessors. If necessary, practical moralists could therefore operate with modern manuals for confessors and neglect consultation of great medieval works (like modern natural scientists who need not quote the original publications of Newton or Einstein). The scholastics who developed

⁴This was realized by Burgio (1998: 9): Probabilism offered a “quadro generale della tendenza alla modernizzazione del cattolicesimo barocco: tendenza che il probabilismo interpreta nei modi dell’aggiornamento casuistico”.

⁵Gualdo (1707), cap. 17, n. 50; Lacroix (1707), lib. 1, q. 60, n. 468.

⁶This point is also emphasized by Tutino (2018).

this view should, accordingly, play a role in the emerging intellectual history of modernity in the seventeenth century. It is therefore not surprising that most leading probabilists after 1650 had a—albeit moderate—love affair with new trends and views in natural science and mathematics.⁷

Second, it should be noted that the quarrel regarding the greater authority of modern or ancient theologians belongs to the context of the *querelles des anciens et des modernes* of the seventeenth century (and not only the famous French one). Its influence on other *querelles* is an open question, but Catholic theology was, in any case, not so backward as not to have its own *querelle*. Our main focus here will, of course, rest on the scholastic quarrel between *antiqui* and *moderni* in the probabilism controversy of the seventeenth century. Yet after extended discussion of this issue, some parallels with the famous French *querelle* will be outlined.

1. Antiqui and moderni in scholastic thought

Medieval scholasticism had already been aware of a rivalry of sorts between ancients and moderns.⁸ The famous metaphor of dwarves on the shoulders of giants, so often quoted to describe modern science's progress, is of medieval origin. In the twelfth century, Bernard of Chartres and John of Salisbury used it to acknowledge the stature of the great ancient classics while explaining the greater farsightedness of their modern successors. 'Modern' was a relative term in this respect. It stood for those living close to the time of writing. In this sense, the use of 'modern' (*modernus*) in the Middle Ages could be proudly self-conscious or pejorative, depending on the user's perspective and context.⁹ Roger Bacon (1214–c. 1292) has become famous for his insistence on self-reliance and observation in natural philosophy, and against mere dependence on the opinions of ancient philosophers. At the same time, however, he criticized the making of a modern classic. Bacon informs us that a contemporary author, in all likelihood Albert of Cologne, was widely revered in ways he deemed inappropriate for a living author.

⁷See Chapter 3.3.

⁸The question of how deeply modernity is rooted in the Middle Ages will not be discussed here. For this issue, see, e.g., Davis (1996), Honnefelder (2008).

⁹See, e.g., Engelbrecht (2015).

There was obviously room for ambivalence with respect to antiquity in scholastic thought. Scholastics used ancient texts to mine for ideas and arguments, but they did so with their own intellectual problems in view. These were the problems of medieval Christianity and its societies, as reflected by three leading intellectual disciplines: theology, law, and medicine. I will not say anything about medicine here, but the theoretical and practical exigencies of scholastic theology and jurisprudence caused some tension with respect to antiquity. Scholastic theology was not content to continue in the footsteps of the Fathers of the Church, and medieval jurisprudence did not simply warm up Roman law. Both disciplines tried to consciously resolve contemporary, ‘modern’ problems, and consequently, questions of an optimal hermeneutical understanding of the ancients (or even of contemporaries) were less relevant than adapting ancient patterns of thought to new uses. In particular, the problems and suggested solutions of ancient non-Christian authors were more important than the authors themselves or their texts. With its mainly problem-centered perspective, scholasticism resembles modern analytic philosophy.¹⁰ This deserves to be mentioned, because the ‘analytic’ style of scholastic reasoning (e.g. answering a short and ahistorical question at the beginning of an analysis *pro* and *con*) already marks a difference in style from ancient thought.

Moreover, scholastic debates often extended over centuries and were in an important respect progressive. Each new generation of scholastics added something to an ongoing debate, usually by differentiation and rendering assumptions explicit. Newcomers had to link up to a ‘research front’ to contribute something of value.¹¹ In the course of this endeavor, they often carefully expounded the trajectory of a debate. Paying insufficient attention to important older contributions in one’s analysis was poor academic practice and probably a career-breaker in medieval universities. This needs to be

¹⁰Strong similarities between scholasticism and analytic philosophy have been widely recognized, see, for instance, García and Noone (2003: 10): “Although medieval philosophy is significantly different from contemporary philosophy insofar as it is primarily concerned with the integration of revelation and secular learning, nonetheless it has much in common with it. For example, it shares with analytic philosophy an emphasis on linguistic precision, the use of technical language, an argumentative spirit, and the view that philosophical problems can be solved by drawing distinctions. And it shares with continental philosophy a concern with being and the existential issues that affect humans.”

¹¹Oberman (1981: 36) also alludes to the idea of a scholastic research front: “*moderna* means first of all ‘increment’ or ‘expansion’, the addition of the newly discovered to scholarship’s existing stock”. See also below Section 4 for the probabilist Gualdo’s description of incremental scholastic inquiry.

understood when speaking of a scholastic abhorrence of novelties. Such an attitude was widespread (see below), but it mainly referred to contributions that did not relate to an established academic debate. In contrast, new and elucidating contributions to established debates were expected of an up-and-coming scholar. They were not considered novelties in a pejorative sense, because they were grounded by a diligent examination and appreciation of already existing arguments. New arguments were thereby engendered by old ones.

Next, we need to be a bit more specific with respect to the various meanings of words such as *antiquus* or *modernus* in the scholastic tradition. As indicated, *modernus* could be used to signal affiliation with an extended present. It then comprised ‘possible contemporaries’, that is, those living within the span of a long human life, or roughly one hundred years before the present. Since *antiquus* was an antonym to *modernus*, it did not necessarily refer to the Greeks and Romans of ancient times. Insofar, the late fourteenth century practice of calling the great theologians of the thirteenth century *antiqui* makes perfect sense. Yet the term stuck and was later often used to denote an ensemble of theologians up to and including John Duns Scotus (1265–1308), who represented the *via antiqua*, the old way of doing theology (and philosophy). The *via moderna*, by contrast, was the way of the theologians and philosophers of the fourteenth century, and, in particular, the way of nominalism with its exponents Ockham, Buridan, Marsilius of Inghen, and others.¹² It would, however, be wrong to assume that the term *modernus* in the fifteenth century always referred to the *via moderna*. As mentioned, it mainly distinguished recent authors from less recent ones. The Latin terms *recentiores* (the more recent ones) and *iuniores* (the younger ones) did roughly the same. It should be clear that these tags did not necessarily imply any ‘modernist’ views in the sense of new or avant-garde opinions. Yet given the cumulative nature of scholastic academic discourse and the existence of a scholastic research front, the probability was quite high that modern authors held different and newer views (if in nuances) than those of an older century.

This observation naturally brings us closer to our subject, namely scholastic regulations concerning the choice of opinions. If modern authors represented a scholastic research front, the question arises how their authority compared to that of great dead scholars. To the best of my knowledge, this

¹²On the distinction and quarrel between the *via antiqua* and *via moderna* (including nominalism) in the Middle Ages, see, e.g., Aertsen and Pickavé (2004); Kaluza (1988); Zimmermann (1974).

question was not systematically discussed by medieval approaches to choosing from a variety of opinions. There was, in other words, no *querelle* of ancients and moderns (that is, of *antiqui* and *moderni*) in medieval scholastic social epistemology. Ancients and moderns were mentioned in a much-quoted source about the choice of opinions, the preface of Monaldus de Capodistria's (1210–1285) *Summa* of confessors. Monaldus assured his readers that he followed the opinions of ancient doctors (*antiquorum doctorum*) but also of some modern ones (*aliqui modernorum*), although there apparently was some variety among them.¹³ Note that the ancients here can hardly have been the great scholastics of Aquinas' generation because Monaldus was their contemporary. That is, Aquinas would have counted as a *modernus* for Monaldus. A certain emphasis on the *antiqui* in the preface—they were mentioned several times—might be interpreted as a sign of their prevalence as authorities. But Monaldus explicitly encouraged his readers to pick those opinions from the mentioned variety, which they deem more appealing to reason (*quae ipsis videtur esse magis consona rationis*).¹⁴ This explicitly individualized license to judge by one's own lights if the experts disagreed among themselves, and to choose whichever expert opinion one considered best, was often adduced by later authors and is also characteristic of the almost contemporary Henry of Ghent (see Chapter 1). It shows that for many scholastics, the reasons a person had for selecting one from a set of eligible opinions apparently mattered most; authority was only a second-best option wherever a plurality of opinions was considered legitimate. Moreover, Monaldus did not recommend preferring the opinions of *antiqui* over those of *moderni*, or vice versa. He only advised readers to prefer the opinion they regarded as the most reasonable opinion.

Johannes Nider, a fifteenth-century author on the choice of opinions in cases of disagreement among 'the doctors', quoted Monaldus approvingly. He backed his own recommendations, dealing with the authority of ancient scholars, modern scholars, and self-reliant reasons in neatly separated chapters.¹⁵ For Nider, Aquinas and his contemporaries were already *antiqui*, yet the *moderni* were not the famous nominalists of the fourteenth century, but Henry of Ghent, Godfrey of Fontaines, or Pierre de la Palud, that is, the next generation of writers after Aquinas on the issues that concerned Nider. Again,

¹³Monaldus (1516), praefatio, p. 1: "Opiniones itaque antiquorum doctorum et etiam aliquorum modernorum humiliter prosecutus quamvis plura inter se varietatem ostendere videantur".

¹⁴Monaldus (1516: 1), praefatio.

¹⁵Nider (1532), pars 3, cap. 11-13.

Nider's discussion contains no clear indication that ancient authorities are to be preferred because they are ancient, or moderns because they are moderns. The Dominican Nider showed particular predilection for Aquinas, but even this in an open-minded way, which allowed for deviation or pluralism where opponents of Aquinas offered good arguments. He was thus an exponent of the open Thomism that was characteristic for many medieval Thomists and for Iberian scholasticism in the sixteenth century.

In fact, the close link between practical theology, jurisprudence, and the choice of opinions rendered it well-nigh impossible for medieval scholastics or the Church as a whole to be wholly on the side of the *antiqui*. Many new decrees and regulations of the Church were introduced during the Middle Ages, adapting older practices to at the time 'modern' demands and conditions. A good number of the new decrees rendered older common opinion in normative matters obsolete. Hence, the Church itself had no interest in petrifying allegiance to old authorities, but had every reason to support the modernizing of interpretations at least in a constrained form. Rational deliberation concerning new norms would have been foreclosed to the detriment of the Church (and its power) if no weight could have been assigned to new views of scholastic theologians. In fact, modern opinions had to be able to outweigh ancient ones to convey rationality to a new norm that was being newly established through the consensus of the 'larger and sounder part' (*major et sanior pars*) of a community.

On the whole, this helps to explain why the relative weighing of ancient and modern opinions was handled in a flexible, not authoritatively fixed way in medieval social epistemology. This remains true if we look at the transition to early modern scholasticism. Konrad Summenhart's rich treatment of choice of opinions contained no trace of a quarrel between the ancients and the moderns. The question whether the authority of the *antiqui* among the doctors was greater than that of the *moderni* was simply not addressed by Summenhart. John Major's analysis of the correct choice from a plurality of opinions was also silent about the relative value of ancient and modern authorities. The whole issue seems to not have been on the minds of the leading scholars on choice of opinion at the outset of the sixteenth century. Silvester Mazzolini de Prierio is an exception, who in his *Summa summarum* documented a *ceteris paribus* preference for the *antiqui*. He stated:¹⁶

¹⁶Mazzolini (1569: 248), verbum 'opinio': "Et si doctores contraria opinantes sunt antiqui & moderni, praeponuntur antiqui: quia temporis diuturnitas videtur aliquam auctoritatem attulisse,

“And if the scholars who hold contrary opinions are ancient and modern ones, the ancients are to be preferred. For the run of time seems to confer some authority, unless from new reasons and causes it looks otherwise, because sometimes the intellect of the younger is more perspicacious.”

Note, however, that ancient scholars only had primacy over modern ones, according to Mazzolini, if a host of other criteria made no difference, and it was restricted by the possibility that the *moderni* might be able to adduce new reasons for their opinions. The remark that the *moderni*'s intellect is sometimes clearer derives from the Roman jurist Gallus and is also found elsewhere in scholastic considerations on the relative authority of ancient and modern scholars. The renowned Spanish theologian Antonio de Cordoba (1485–1578) repeated Mazzolini's statement almost verbatim.¹⁷ Mazzolini's low-level and hedged, but *ceteris paribus* definite prioritization of ancient over modern scholars seems to represent a conservative attitude of a certain currency in his time.¹⁸

Mazzolini was also one of the first notable scholastics who dealt with Martin Luther and the uproar he caused in the Catholic Church.¹⁹ Luther and other reformers were soon depreciatingly referred to as *novatores* (novelty-seekers) by their Catholic opponents. They were accused of introducing horrendous errors (or updated old errors) into the sound edifice of Catholic theology. The spread of the Reformation in sixteenth-century Europe further blackened the connotation of the term *novator*, which already had had a bad image in the Middle Ages. At the end of the century, the Jesuit *Ratio Studiorum* stated succinctly: “The novelty of opinions is to be avoided”.²⁰ Against this background, it needs to be emphasized that *moderni* or *recentiores* need not inevitably be *novatores*. Scholastic probabilists of the seventeenth century, who undoubtedly were *moderni*, undertook considerable efforts to demonstrate that

nisi ex novis rationibus & causis aliud sentiatur: quia aliquando intellectus iunioris est perspicacior”.

¹⁷Cordoba (1604: 15), lib. 2, q. 3, causa 5.

¹⁸Mazzolini's uncommonly conservative Thomism needs to be accounted for when assessing his position. He refers to his contemporary, the great Thomist commentator Thomas de Vio Cajetan, as *quidam Thomista modernus* and prefers a narrower and more old-fashioned Thomism (see Tavuzzi 1997: 96). Hence, his prioritization of the *antiqui* may be less open-minded than the attitude of contemporaries, such as Cajetan, or Summenhart and Major.

¹⁹See Tavuzzi (1997: pp. 104).

²⁰Lukács (1986: 380), *Ratio Studiorum*, pars 4, reg. 6.: “Novitas opinionum fugienda”.

their teachings were anything but new. They anchored probabilism in the writings of Aquinas, Scotus, and—just to be on the safe side—dozens of other great medieval scholastics, lawyers, popes, and cardinals. Juan Caramuel, extravagant as ever, was not content with literally tracing probabilism back to only Adam and Eve, he also claimed that angels were probabilists. (God, of course, knew everything and had no need for probable reasoning.) However inappropriate such backdating may have been, it shows that the question of the relative authority of ancients and moderns and the question of novelty (or innovation) should not be confused.

It should also be clarified that Counter-Reformation Catholicism was less hostile towards novelty than its darkened public image suggests. The Jesuits, for instance, who had to officially shun novel opinions, excelled in introducing some important new ones. Their abandonment of the old Ptolemaic world view in favor of the Tychonic view is well-known, the latter being a new doctrine. In the eyes of many contemporaries, it was newer than Copernicanism, which they considered to be a revamped ancient view.²¹ Scholastic probabilism was another innovation, very eagerly adopted by Jesuits precisely at the time when the *Ratio Studiorum* and its prohibition of novel opinions were issued. As indicated, probabilism could also be sold as old or at least as an extension of prior scholastic thought. The latter point is important, because *novatores* were understood as breaking with past knowledge and launching new discourses instead of contributing to an ongoing endeavor. Scholars who consciously styled their innovations as contributions to an existing debate, thereby adding to the debate without disregarding prior insights, could effectively avoid the odium of a *novator*.

Finally, even openly declared novelty was not automatically subject to censorship or condemnation. The French Jesuit Theophile Raynaud (1583–1663) wrote a book on censorship entitled *Erotemata*.²² He might have been considered an expert on these issues because he had been censored, condemned, and imprisoned himself. Yet Raynaud was also one of the most prominent French Jesuits of the first half of the seventeenth century, and one of their most prolific writers. *Erotemata* was published with the approbation of his superiors. In *Erotema* no. 20, Raynaud dealt with the question whether the novelty of a doctrine or of some form of content was in itself already a sufficient reason to ban a book. He considered this true in matters of the Holy

²¹See Westman (2011).

²²Raynaud (1653). On Raynaud's life and writings, see Bordes (1984).

Scripture and its immediate interpretation, but already scholastic theology was subject to a more lenient stricture. Moreover, novelty could be tolerated in morals, literature, and philosophy. Hence, novelty demanded a differentiated treatment, and a Jesuit could say so (and act accordingly) despite the apparently countervailing rule of the *Ratio Studiorum*.²³

Having concluded our digression on novelty, we will now return to the issue of ancients and moderns. Melchor Cano's monumental *De locis theologicis* was a work of vastly greater weight than Raynaud's reflections on censorship. The importance of Cano's work as a sum total of epistemological aspects of theological practice, right at the outset of the Counter-Reformation, has already been addressed (see Chapter 2). Presently, only his remarks concerning ancient and modern authorities are relevant. Cano did not attribute unqualified superiority to either side. In the preface of *De locis*, he carefully acknowledged their respective virtues. The authors of old (*veteres*) had introduced a huge amount of issues, thus creating the subject matter of theology. They acted as path-breakers, whereas the newer authors (*recentiores* or *iuniores*) excelled in systematizing and structuring the inherited wealth of material, elucidating the often less than clear meaning of old doctrines and arguments. In this picture, medieval scholasticism emerges as an analytic endeavor (as indicated above, in many ways similar to modern analytic philosophy), whose exponents excel as acute and precise reasoners, even if they lack the breadth and creative power of the old guard of theologians and philosophers. No side is superior in general and in all important respects.

Such a balanced view suited Cano's anti-Protestantism, of course, given that anti-Catholic reformers relied on the Holy Scripture and the Church Fathers while bashing scholastic theology. Against this background, it was not prudent for a Counter-Reformation theorist to overemphasize the superiority of the ancients, or even of more remote medieval scholastics, over and against the ongoing tradition of scholastic reasoning on which the Catholic Church relied. Nevertheless, within the limits of this restriction, Cano did favor ancient authorities. For him, the consensus of the ancient saints was binding with respect to the rules of faith, if not in all legal matters.

²³Raynaud's track record as a dazzling intellectual is another case revealing that Jesuits were in reality far less obedient, in particular concerning intellectual obedience, than the letter of the Jesuit Constitution might make one think. Jesuits, who without hesitation would have sacrificed their lives if requested to do so by their superiors, did not sacrifice their intellects. For another defense of novelty, this time from a member of the Theatine Order, see Pasqualigo (1641), dec. 184, n. 23.

A bit further in the text he rhetorically asked, “and what is to say about the more recent scholastic theologians, whom the old ones outclass by far concerning meritorious life, familiarity with Scripture, and weight of authority”.²⁴ He furthermore wrote: “Maximal is the power and authority of age (*vetustas*), and where it competes with novelty, it ought without doubt to be preferred.”²⁵ This then, was one of the rare references to *novitas* in Cano, and it was here meant to emphasize the authority of the ancients.

Hence, Cano, as much as Mazzolini, prioritized the authority of the *antiqui*. In both cases, this prioritization was not blind, but hedged and tempered by a *ceteris-paribus* clause. By contrast, less conservative contemporaries of Cano and Mazzolini (both were known as conservatives during their time)²⁶ might have lacked an overall attitude with respect to the authority of *antiqui* and *moderni*. That is, in final consideration, a bias for the *antiqui* is less pronounced than the common image of scholasticism alleges, but recognizably present among more conservative scholastics. We will now see how probabilism changed this state of affairs.

2. Probabilism as vector of modernization

Probabilism as such is neutral with respect to the question of ancients and moderns. Its permission to follow less probable opinions says nothing about the period to which the respective opinions or their authors belong. Insofar, probabilism might be readily combined with a preference for the opinions of long dead scholars. Many probabilists were neutral between old or new authors, but a significant share of probabilists, and a highly visible one in the seventeenth century, embraced the case of the moderns. Hence, probabilism apparently became the first school of scholastic thought that was known for a pronounced pro-modern attitude.²⁷ This attitude was fostered by a belief in the cumulative and progressive nature of scholastic investigations, but also by

²⁴Cano (1574), lib. 8, cap. 5: “ecquid de recentioribus scholae theologis dicere oportet, quos veteres illi longe et vitae merito et scripturarum usu et auctoritatis pondere superarunt?”

²⁵Cano (1574), lib. 7, cap. 3: “Maxima enim est vis et auctoritas vetustatis: et ubi cum novitate certet, est illa sine dubio praeferenda”.

²⁶On the conservatism of Mazzolini, see Tavuzzi (1997); for Cano, see Körner (1994), Lang (1974).

²⁷As indicated, the *via moderna* was modern in its time, but did not favor modern opinions in general.

the fact that many probabilists considered some long held moral views as obsolete. For them, Christian morality needed to be propagated in its most modern interpretation. Unsurprisingly, there was some opposition to this. Anti-probabilists inveighed against a prerogative of modern opinions and modern authors, trying to re-establish what in their eyes had been the good old reverence for *antiqui*. We will now take a closer look at this quarrel between ancients and moderns within Catholic moral theology.

The founder of probabilism, Bartolomé de Medina, apparently did not address the issue of ancients and moderns, but soon after him, Juan Azor indirectly addressed it with his list of classical authorities. Azor's list has been discussed in Chapter 5 and need not be reproduced here beyond the reminder that he considered opinions, which were supported by the testimony of classical authors, as probable.²⁸ At first glance, this appears anti-modern, but a closer look reveals the opposite. Azor found classics in all of his four periods of scholasticism (1140–1300, 1300–1400, 1400–1500, 1500–his time). He emphasized that all periods are equal with respect to the status of their classics.²⁹ Hence, the opinions of classics from the period 1140–1300 did not have more weight due to age or a possible superiority of the *via antiqua*. In fact, Azor virtually created the category of 'modern classics' (without calling them thus) by including authors from 1500 up to his time. The *Institutiones morales* were apparently written from the 1580s onward. The last authors on the list(s) flourished around 1560, and are nevertheless deemed classics. They are Melchor Cano, Domingo de Soto, and Antonio de Cordoba among the theologians, and Martín de Azpilcueta (Dr. Navarrus) among the casuists. None of these authors was a Jesuit, and the Jesuit Azor did not include any Jesuit theologians or casuists in his list of classics, maybe because they did not yet satisfy his respective criteria.

In fact, Azor's criterion for being a classic has nothing to do with an assumption that the past is more eminent than the present just because it is past or because the ancients allegedly had greater intellectual capacities than the moderns. Being a classic depended on verifiable academic criteria according to Azor: being widely read and interpreted, as well as frequency of quotation (conditions Jesuit authors were only just beginning to satisfy in his

²⁸Azor (1602: 82), cap. 14: "Quoniam in deligendis opinionibus ea habetur sententiae probabilis, quae classici scriptoris, auctorisve testimonio comprobatur: ideo in hoc capite visum est mihi auctores classicos recensere".

²⁹Azor (1602: 82), tom. 1, lib. 2, cap. 14: "Classes ipsas distinguimus pro varietate temporum, in quibus auctores vixerunt, non pro ipsorum scriptorium auctoritate & dignitate".

time). Textbooks on the history of philosophy and theology still abide by these criteria today. In any case, amply prominent and quoted recent authors could be classics ('modern classics') no less than long dead authors. In fact, for theologians, Azor counted an equal number of modern classics (1500–1560) and classics from 'Aquinas' time', the great formative period of scholastic theology (1140–1300).

Whatever the merits of an approach via classical authors, it was not to become a backbone of probabilism. Gabriel Vazquez and Tomás Sanchez, two of the most notable probabilists among Azor's contemporaries, did not focus on the role of classics. They addressed the question of ancients and moderns only in passing, but nevertheless undermined a prevalence of the ancients. Both discussed the case that *antiqui* had formed an opinion about a problem which subsequently was regulated by a new law or decree. In this case, it was reasonable to follow the opinions of moderns who were aware of the new regulations, unless these moderns endorsed old opinions with new arguments.³⁰ The relative authority of ancients and moderns is thus only assessed from a peculiar angle, but both authors confirmed that new information and knowledge could call for a preference for moderns.

During the heyday of probabilism in the 1630s, the case of the moderns began to progress further. This is not to say that a non-committal attitude towards dealing with the relative authority of ancients or moderns was universally abandoned. One such example is Martin Bresser. In *De conscientia* (1638), Bresser discussed a set of conditions for the probability of a doctor's opinion, and he assumed that being a classic helped. But Bresser immediately balanced his account with the remark that a good live performance of a scholar in presentation or debate should be more esteemed on occasion than a well-received publication. Bresser argued that published opinions were usually more carefully thought through, but a doctor who is alive (*vivus doctor* – scholastic textbooks were often published posthumously) often introduced new circumstances, reasons, authoritative statements, canonical regulations, or laws that modified the solution of a case or its probability.³¹ Note that

³⁰See Vazquez (1606), disp. 62, cap. 4, n. 18; Sanchez (1614), tom, 1, lib. 1, cap. 9, n. 11.

³¹Bresser (1638: 274), n. 34: "Alias nullius, quantumvis docti, auctoritas sufficeret, nisi jam editis libris clarus in scholis citari soleret: quod nec est rationabile, cum libri vel professio publica non augeant, sed supponant doctrinam; nec conforme menti doctorum, qui supponunt passim resolutiones casuum probabiles reddi vivae vocis oraculo, seu responso unius viri docti, etiam respectu doctorum. Imo aliqui praeferunt vivae vocis oracula responsionibus impressis. Quae duo tamen habent se tamquam excedens & excessum: nam ex una parte responsio impressa supponitur profecta a majori studio ac praemeditatione: ex altera parte, vivus doctor jam deregere

relative to Vazquez and Sanchez, Bresser stated the case for a contemporary doctor much more broadly by adding circumstances, reasons, and authoritative statements to the legal amendments the former two had mentioned. In general, however, neither successful academic publications nor excellent oral performances, according to Bresser, were straightforwardly better than the other. In some important respects, the former was preferable, and in others, the other (*habent se tamquam excedens & excessum*). That is, there was no generally best methodology for determining the relative rank of a moral theologian or casuist, and this was also true for establishing a prerogative of deceased or living authors.

Around the same time as Bresser, Zaccaria Pasqualigo also assessed the probability of published opinions. He asked whether one could with good conscience follow an opinion found in some book. Pasqualigo sided with those who favored a differentiated approach. It did not seem licit to him to straightforwardly follow an opinion found in a book of one of the *antiqui*, because it was possible that the opinion had subsequently been examined and proven wrong.³² The case was different if an ancient opinion had been endorsed by recent authors and treated as probable and worthy of acceptance.³³ Pasqualigo's discussion thus developed a definite bias for the authority of moderns. The books and opinions of the *antiqui* had to be assessed under a caveat of obsolescence, at least with respect to issues of moral theology, the relevant subject area for Pasqualigo's analysis. Sound opinion formation required substantiation by up-to-date analyses or recent statements. The moderns were therefore gate-keepers of ancient opinions.

Pasqualigo was one of the probabilists active in Urban VIII's Rome. He adhered to the 'benevolent way' (*via benigna*) of moral theology, which was often denounced by critics as being too permissive. Another notable exponent of this Italian group of authors, who mainly came from the Theatine Order, was Antonino Diana. Diana and his colleagues represented modernist attitudes by treating the opinions of recent casuists on a par with those of the

potest novam circumstantiam, rationem, auctoritatem, canonem vel legem, quae latuerit mortuum, vel scriptorem dum scripsit; qua tamen mutetur talis casus, ejusque probabilitas".

³²Pasqualigo (1641: 25), dec. 29, n. 2: "Nimirum non posse quempiam sequi opinionem, quam in libris unius vel alterius doctoris repererit, si isti doctores ex antiquioribus sint; quia tunc fieri potest, quod talis opinio a subsequentibus examinata, sit habita pro falsa".

³³Pasqualigo (1641: 25), dec. 29, n. 3: "Oppositum autem tenendum est cum iisdem auctoribus, quando aliqua opinio apud unum aut alterum ex recentioribus reperitur, si eam tradant tamquam probabilem & recipiendam; quia tunc non supponitur declarata pro falsa, sed suam habere probabilitatem".

great scholastic moralists of the past. Diana's *Resolutiones morales* (1636), in particular, a gigantic collection of moral cases and probable solutions, was a repertory of modern and often daring opinions on every conceivable issue of practical morality. One of the 'modernist' positions reported by Diana, which subsequently became notorious because it was condemned by Pope Alexander VII, concerned the *prima facie* probability of modern opinions. To the question whether an opinion was to be considered probable if it had already made its way into an academic book, Diana remarked:³⁴

"If the book is by some newer and more recent author, the opinion is to be judged probable, as long as it is not clearly rejected by the Holy See as improbable. The reason is that if taught by a directly asked notable scholar, this doctrine is probable. Hence, if written down and printed, it is to be taken for probable ...

Yet if the book is by an ancient scholar, his opinion is no longer to be taken for probable. For it can already be outdated, and reprobated by the Holy See, and more recent authors may know some reason, law, or decree with maximal force against this opinion, clearly showing that it is wrong. Under these premises, the ancient opinion, which was somehow probable as long as these were not given, is rendered improbable in our time."

It is likely that it was Diana who rendered this position prominent, although he did not endorse it, as he explicitly stated. He took the quoted sentences verbatim from a work of José Rocafull, an otherwise hardly known Spanish theologian and professor at the University of Valencia. Rocafull had made these claims in his massive *Totius moralis theologiae praxis* (1640).³⁵ The apparent message of Rocafull's position, which Diana reported in the 1645 edition of his *Resolutiones*, thereby accepting at least its probability, was a quite

³⁴Diana (1645: 246), pars 9, tract. 7, resol. 60: "[S]i liber sit alicujus junioris et moderni, debet opinioni censeri probabilis, dum non constet, rejectam esse a Sede Apostolica tamquam improbabilem: et ratio est, quia si oretenus consultus doctor gravis id doceret, doctrina illa esset probabilis: ergo scriptis tradita et typis mandata erit pro probabili habenda; ... Quod si liber sit alicujus doctoris antiqui, non protinus illius opinio probabilis habenda est: nam potest esse antiquata iam, et a Sede Apostolica reprobata, et potest a iunioribus aliqua ratio, lex, vel decretum maximam vim habens contra illam opinionem, et plane convincens esse falsam, animadversa esse, quibus stantibus antiqua illa opinio quamvis, dum haec non constatabant, esset probabilis; nostro tempore improbabilis est facta".

³⁵Rocafull (1640: 348), tom. 1, pars 3, tract. De conscientia, lib. 3, cap. 2, n. 20. Note that Diana refers to the wrong volume and a wrong place in Rocafull's book.

incisive prerogative of modern authors. Published opinions of modern authors, which had not been condemned by the Apostolic See, and by virtue of being published had passed the censors of the Church, were to be considered probable – full stop. Nothing here of the careful hedging and considerations to be found in other analyses. Rocafull’s reasoning was straightforward. If the opinion of a competent doctor was to be considered probable, it was also to be considered probable in its published form. The modernist impetus of this position comes into full view with Rocafull’s remarks on *antiqui*. Ancients did not profit from a *prima facie* assumption of probability, because their opinions stood at risk of being outdated and were, in fact, to be presumed outdated, unless countervailing reasons existed. Great medieval theologians, such as Aquinas, Scotus, or Ockham, were, of course, not subject to this stricture, because their opinions were still preserved in ‘modern’ scholastic discussions in the seventeenth century. Yet this shows that continued relevance grounded the authority of great scholastics, not venerable antiquity.

Rocafull’s hardly hedged pro-modern statement and its wide dispersal by Diana sparked trouble with the Apostolic See. In 1665, when the intellectual climate had already become rough not only for probabilists, but for scholastic modernizers in general, Alexander VII condemned Rocafull’s statement.³⁶ The condemnation does not mention the sources of the opinion, an often used strategy to mitigate personal recriminations and infighting among scholastics. However, Diana was prominent enough to be easily identified as the source by his colleagues.³⁷ The anti-probabilists, who were advancing at the time, took the condemnation as vindication of their anti-modernist stance and as a blow to Diana’s laxism (see Chapter 3 on laxism). Alexander VII probably did not, however, have such far-reaching intentions. The condemnation did not prohibit a preference for modern opinions, but only an automatism of considering any printed modern opinion as probable.

Probabilists could live with that. Anthony Terill, one of the greatest theorists of probabilism ever, emphatically endorsed Alexander VII’s decision. He admitted that many modern authors promoted cases and solutions that were apparently absurd in moral terms, and not only repugnant

³⁶The condemned sentence is “Si liber sit alicujus junioris et moderni, debet opinio censi probabilis, dum non constet, rejectam esse a Sede Apostolica tamquam improbabilem”, see Denzinger (1854: 256).

³⁷See, for instance, Bordoni (1668), fund. 6, n. 40.

to common sense, but also to the common opinion of all other scholars.³⁸ Moreover, modern authors often treated issues superficially and without sufficient argumentation. It would therefore be absolutely foolish (*stultissima*) to accept each and every modern opinion as probable as long as the Apostolic See did not condemn it. Terill, however, did not argue for a *ceteris paribus* greater authority of the *antiqui*.

Terill's qualifications came too late to restrain the flood of anti-probabilist writings. With Pasqualigo, Diana, Rocafull, and many other casuists who traded in easily understandable, simplified positions, the public image of probabilism had moved towards a pro-modern bias in the 1630s and 1640s. At this point, something should be said about the content of 'modern' opinions in the seventeenth century. Early modern moral theologians discussed a great variety of moral opinions and issues. Almost all problems discussed by practical ethicists today were already addressed by early modern casuists. The legitimacy of wars, soldierly disobedience, medical experimentation, making money with bad medicines, withholding information from customers, trading in futures, and so on – you mention it, early modern casuists discussed it. Most of these discussions had roots in the Middle Ages, but a trend towards more lenient and benign solutions became pronounced over time. We tend to accept such developments as being modernizing if the opinions that became newly acceptable converge with our own. However, the possibility of unsuccessful or abortive modernization should be taken seriously. In fact, many tenets of Baroque practical morality, which for us is alien territory, were actually modernizations, simply because the Baroque was modern in the seventeenth century. Insofar, High Casuistry tended to adapt Christian morality to the exigencies of the period in which it flourished. But it is important to recognize that the adaptability of Christian practiced morality was not a new feature in the seventeenth century. Christian morality as regulated in the confessional had always reacted to the needs of practical viability. Economic morality had already been adapted in the Middle Ages to an increasing monetarization of the economy and the growth of competitive markets. Restrictions on money lending for interest (that is, on

³⁸Terill (1669: 85), q. 6, ass. 10, n. 25: "Nonnulla reperiuntur apud modernos auctores, quae primo aspectu sunt absona in moribus, & repugnant non solum sensui communi hominum, sed communi aliorum omnium doctorum sententiae. Praeterea moderni illi, praeterquam quod saepe leviter & per transennam rem tractent, minimis & parvi momenti rationibus saepe ducuntur; ... At stultissimum plane est pro regula probabilitatis eo recurrere, ut tamdiu propositio moderni auctoris censeatur probabilis, donec a Sede Apostolica rejiciatur ut improbabilis".

usury) had been loop-holed since the fourteenth century. This process continued under the sway of probabilism, but the fact of the adaptation of morality to new economic developments as such was not new.³⁹

A similar adaptive tendency can be observed in sexual ethics. There is still a lack of specialized studies, let alone a satisfactory overview, to evaluate the developments in Christian sexual morality in early modernity on a large scale. Recent studies allow for at least some glimpses, and some of the findings appear surprising.⁴⁰ The Counter-Reformation notwithstanding, an increasingly positive attitude towards sexual pleasures within the bounds of marriage unfolded during the sixteenth century. Tomás Sanchez's monumental work on marriage is the prime example of this trend. Sanchez openly discussed licit and illicit practices of sexual stimulation and was more lenient in this respect than most of his predecessors. Petting between married couples, for instance, had been considered sinful by many medieval theologians if not done in preparation for the sexual act, which in turn had to aim at procreation. Sanchez, by contrast, found it permissible to engage in mutual petting just for pleasure's sake, because it strengthened the marital bond.⁴¹

The new casuists also showed concern for the victims of sexual violence. In the seventeenth century, the question whether a rape victim was guilty of compliance if she did not fight the rapist as much as she could have physically, was increasingly answered by casuists in favor of the victim. If she did not fight out of fear, it did not automatically render her compliant in the eyes of many of the 'modern' moral theologians. According to Zaccaria Pasqualigo, it was still the common opinion in his time that a girl who did not defend herself violently shared guilt in her defilement (*stuprum*).⁴² Pasqualigo, by contrast, favored the view that a girl did not have to shout for help and violently fight a rapist to avoid complicity (or even face the accusation of having seduced the man) if it was clear that she did not consent and if she otherwise risked being hurt. "I think" (*existimo*), wrote Pasqualigo, that in this

³⁹On probabilism and early modern scholastic positions on usury, see Tutino (2018: pp. 110). Further aspects of economic ethics, e.g., with respect to taxation and information are discussed in Decock (2009); Lavenia (2004); Lavenia (2009); Schwartz (2019), part 1.

⁴⁰See, e.g., Alfieri (2010); Haliczler (1996); Knebel (2014); Storey (2008). Kochuthara (2007) contains an overview of the Catholic attitude towards sexual pleasure in the early modern era, albeit a brief one.

⁴¹Sanchez (1693), lib. 9, disp. 44, n. 11.

⁴²Pasqualigo (1641: 407), decisio 457. See also the discussion of this case in Chapter 2.

case the girl need not outwardly resist and that it suffices to show as much resistance as she safely (*commode*) can.

Judgments like those of Sanchez on petting and Pasqualigo on fighting a rapist appear as modernizations of Christian morality because they concur with a historical trend that finally produced the modern views on the respective issues. Hence, Catholic moral theology, at least in part, became modern in this respect in the seventeenth century. Yet this point, although it should duly be noted, is presently only of secondary interest. As indicated, adaptive modernization in some fields of morality had already occurred throughout the Middle Ages. It was also not new to regard scholastic inquiry as a cumulative and collaborative endeavor, together with an awareness that it mattered to be on the research front.

However, these views had hardly been expressed as explicitly before the seventeenth century as they were being propagated by important probabilists in this century. In particular, as the cases of Pasqualigo, Diana, and Rocafull have shown, moral theologians in the first half of the seventeenth century explicitly assumed that modern analyses superseded those of the ancients, above all in practical matters, and that consulting one of the comprehensive discussions of their time sufficed for moral orientation.

3. *Caramuel and the moderns*

No scholastic probabilist had a more pronounced appreciation of modern trends of thought than Juan Caramuel y Lobkowitz. He entertained a vision of progress for science and mathematics in his age, and he saw himself on its frontier. His very positive attitude towards modern theological authors complemented these attitudes. In one of his earliest works, *In Benedicti regulam* (1640), Caramuel touched upon the issue of ancients and moderns. In his usual bold fashion, he claimed that one famous (*fama maxima*) author sufficed to render an opinion (extrinsically) probable, even if all authors of former times (*antiquiores*) favored the opposite opinion. This view follows as a conclusion from the general claim that the opinion of one competent author is probable, even if this author stands alone against a front of equally competent opponents. However, the familiar one-against-many theme of Baroque probabilism receives a pro-modern twist here. The author who

stands against the united *antiqui* is modern. At first sight, Caramuel's pro-modern statement is of a kind with those of Pasqualigo and Rocafull, which we already discussed. At closer inspection, however, Caramuel makes a bolder claim. He not only assumed a prerogative in favor of the moderns, but defended single-handed opposition of a great modern against *all* ancient authorities, apparently regardless whether Aquinas, Duns Scotus, or some other theological giant was among the *antiqui*. A modern author could not, however, single-handedly oust the ancients if all other recent authors (*posteriores*) rejected his opinion. Caramuel's position thus implied that the near unanimous opposition of the ancients counted less than the near unanimous opposition of the moderns. He stated as justification that the new authors could be presumed to have found some profound or efficacious reason, which the older authors had failed to see.

Caramuel's modernism remained pronounced in later works. The *Theologia moralis fundamentalis* of 1652 contained a letter to scholastic doctors whom Caramuel professed to regard as teachers and intellectual peers. He praised the excellence of these scholars in comparison to the doctors of antiquity. His own era was to be congratulated, Caramuel wrote, because it did not at all have to envy the golden era of antiquity. Having read the histories of old, he observed that no previous century was a match for his, because his era possessed as many learned men as all earlier ones together. With respect to intellectual eminence, he did not believe that in the world of letters (*in orbe litterario*), theologians had ever existed who were equal or greater than the contemporaries he praised.⁴³ This was certainly stark Baroque adulation, but it nicely documents Caramuel's pro-modern views. He continued adverting to the once small number of eminent scholars and the wealth of learned men in his age, thus indirectly acknowledging the success of the educational reforms of the sixteenth century. New academies had sprung up, which fostered subtle and sublime scholarship. Truly, in his days many great men existed, of which those he addressed were the most outstanding.

Later in his work, Caramuel returned to the question of contemporary opinions and claimed that in moral matters, the opinions of recent or living

⁴³Caramuel (1652: 27): "nostro aevo congratulor, quod non habeat cur aurea antiquitati invidiat. Interlego prisca aetatis historias & admirandus observo nullum saeculum debere conferri cum nostro; nam sie ingenorum numerum considerem, tot habet viros doctos haec aetas quod omnes praeterita simul: &, si ingeniorum eminentiam perpendam, fuisse olim in orbe litterario theologos vobis suppres vel majores, crediturus non sum".

authors (*iuniores*) carried more weight than those of doctors of the past (*veteres*).⁴⁴ Some people believed that the doctors of old had more powerful intellects, because nature had lost its fertility over time. Caramuel, however, thought that nature, like God, was at all times equally wise, powerful, and good. Hence, intellects and scholars were so distributed that no century had to envy another. Yet there are two reasons why he favored recent authors. Although the ancients had more powerful and robust bodies, the moderns possessed subtler intellects. For this reason, Aquinas, Duns Scotus, Molina, Suárez, and Vazquez were more astute and perspicacious (*acutiores et oculatiores*) than Socrates, Plato, and Aristotle.⁴⁵

In fact, praise for the subtlety and perspicuity of great scholastic authors in comparison to Plato and Aristotle was not a novelty introduced by Caramuel. Benedetto Accolti (1415–1464) had already in the fifteenth century, in one of the earliest extended pleas for the superiority of the moderns, elevated modern philosophers above the ancients. He contended that Albert the Great and Aquinas were at least as good as Plato and Aristotle, because they had conducted their investigations so subtly and brilliantly that we might believe nothing escaped them which human ingenuity could reveal.⁴⁶ The ascription of superior subtlety and perspicuity to scholastic authors was apparently owed to their (in modern terms) analytical method of reasoning, which, in the eyes of their admirers, helped them develop clearer, more differentiated, and more explicit arguments than the two greatest ancient philosophers. A self-conscious pride of scholastic authors concerning the quality of their reasoning (again akin to modern analytic philosophers), to which Accolti harked back, becomes apparent in this judgment.

Only caution hindered Caramuel to rank his contemporaries above all predecessors. Even if it were acknowledged that the ancients had at least as exceptional intellects as his contemporaries, Caramuel maintained, it would not follow that they had as good insights (*fuisse aequales aut maiores doctrina*). Moderns knew all the insights of the ancients to which they added some of

⁴⁴Caramuel (1652: 95), fund. 8, n. 194: “In materia morum maioris faciendae sunt iuniorum opiniones quam veterum”. Fundamentum 8 deals with: “De Iuniorum, etiam viventium, opinionibus”.

⁴⁵Caramuel (1652: 95), fund. 8, n. 194: “dicturi sumus necessario iuniores subtilioribus ingeniis praeditos, & Socratibus, Platonibus, Aristotelibus fuisse acutiores & oculatiores Thomas, Scotos, Molinas, Suarios, Vasquios”.

⁴⁶See Accolti (1692), quoted after Buck (1973: 12): “adeo subtiliter et copiose cuncta investigarunt, ut nihil eos latuisse existimetur, quod ingenium humanum assequi potuerit”. Accolti’s *Dialogus* was published in 1460 and is discussed in Black (2002), Chap. 8.

their own. Caramuel explicitly defended innovation by pointing out that an opinion need not be wrong just because it was new.⁴⁷ Many formerly new opinions were received and taken for certain in his times. Previously, it was considered improbable that antipodes existed, and under the Catholic kings Ferdinand and Isabella, this opinion was new but nevertheless true. Today, it was old and certain according to Caramuel. Judged without envy and prejudice, moral theology as a whole was new, and who would deny that Diana knew hundreds of probable opinions, which were unknown to Augustine and the ancient Fathers of the Church?⁴⁸ These considerations show why Caramuel believed so firmly in the superiority of the moderns in the moral sphere. Moral theology was new, having emerged as a subdiscipline of theology only in the sixteenth century. This is not to say that ancient or medieval authors had an unsatisfactory grasp of theology's moral foundations. Reference to Diana, the ultimate casuist, indicates that Caramuel was mainly concerned with practical morality. In this respect, the moral theologians of the seventeenth century tilled a larger field and went into more detail than theologians had ever before. He also thought that their analyses had gained in astuteness, which probably meant that they were more explicit and more amply backed by rational argument.

In *Apologema pro probabilitate* (1663), Caramuel again criticized the general rejection of novelty. The acceptance of novelties (*novitates*) had always been best practice in scholasticism. Yet Caramuel also referred to new discoveries that had uprooted ancient world views. He mentioned Columbus and the discovery of the Americas, as well as the antipodes (again). People lived below the Equator, and it was neither too hot for them there nor did they fall off the globe as some ancients had believed. All old doctrines had at their time been new. Their rise to classical and canonical status was proof that new doctrines can succeed and even become pillars of Catholic orthodoxy. Caramuel here used the example of Aquinas to great effect. In Aquinas' own time, as Thomists well knew, many of his teachings had been considered contentious and as novelties – in fact, some had even been temporarily prohibited. In consequence, the followers of Aquinas should acknowledge

⁴⁷Caramuel (1652), fund. 60, n. 1268.

⁴⁸Caramuel (1652), fund. 60, n. 1268: “Multae enim opiniones heri fuerunt novae, quae hodie sunt certae. Olim dari Antipodes improbable fuit: sub Ferdinando & Isabella Catholicis Hispaniae Regibus, novum, verum tamen; quod ipsum jam hodie est antiquum & certum. ... Nam si absit indivia & praejudicium, tota Moralis Theologia nova est, quis enim negare audebit esse hodie in Diana centenas opiniones probabiles, quae Augustino & antiquis Patribus Ecclesiae ignotae”.

that forming new and bold doctrines, albeit with roots in tradition, was good Thomistic practice. Caramuel quoted Antonino of Florence—Saint Antonino to be precise from a Catholic perspective—as a source for his discussion of Aquinas’ erstwhile novelty, a clever move because the defenders of the *antiqui* were thus confronted with the voice of an honored classic, whose rank among the great theologians of the past was beyond doubt. (Antonino was, for instance, listed as a classic by Azor.)

Yet Caramuel also lowered Aquinas’ authority a peg by pointedly asserting that Aquinas did not fully share God’s omniscience, nor was the treasure of divine light so plentiful in him that no ray remained by which new authors (*iuniores*) could be illuminated.⁴⁹ In other words, not all true doctrine was to be found in the writings of Aquinas. Not only had Scotus, Ockham, and Molina argued very effectively against Aquinas, but Durandus of Saint Pourçain had deviated from Aquinas, although he was a fellow Dominican, and Cajetan had also done so, although he was Aquinas’ commentator. Both followed truth in an appropriately open-minded way, as Caramuel implied. The message was clear: Thomists should not make an idol of Aquinas but use his teachings as a basis for an open-minded search for truth. This was, of course, exactly what many early modern Thomists aspired to. It was thus possible to portray the history of scholasticism as a chain of inquiries, proceeding through the collaborative work of many generations to an increasingly better understanding of the underlying problems and likely (i.e. probable) solutions. After the Church Fathers, this chain had led to Aquinas; and after Aquinas to Duns Scotus, Ockham, Cajetan, and others; and after them to Suárez, Vazquez, Thomas Sanchez, and, last but not least in his own estimation, to Caramuel himself.⁵⁰

Given Caramuel’s appreciation of contemporaneity, one might think that he would have praised probabilism as the latest accretion in a cumulative process of knowledge acquisition. Yet Caramuel, like other probabilists, made considerable efforts to link probabilism to the teachings of the *antiqui*. In probabilist historiography, most of the great medieval scholastics, including Aquinas, were considered probabilists before the letter. Caramuel did not stop

⁴⁹Caramuel (1663: 97), ep. 4, n. 165: “Non esse in D. Thoma exhaustam Dei omnipotentiam, nec luminis thesauros ita effusos, ut nullus radius manserit, quo Iuniores possint illuminari ... Patet, quia non solum Scoti, Ochami, & Molinae probabilissimae scholae contra D. Thomam argumentatur; sed & Durandus licet Dominicanus, & Caietanus licet eius Commentator, ab illo liberrime recedunt, quaerentes veritatem, si aliunde alluceat”.

⁵⁰Caramuel (1663), ep. 4, n. 165.

there but traced the use of probable opinions literally back to Adam and Eve. But such extravaganzas notwithstanding, his quest for the antiquity of probabilism was nothing out of the ordinary. The question, of course, is what should be made of probabilists' attempts to root their doctrine in tradition. In seventeenth-century Catholicism, a full-scale abandonment of deep roots in the scholastic tradition would have pulled the rug out from under a doctrine, at least in the sense that it would have deprived the doctrine of many sympathetic supporters in the hierarchy of the Church or the political arena. Like any other doctrine, probabilism needed such supporters to be successful. However, the verve with which Caramuel and other probabilists argued for the antiquity of their doctrine indicates conviction. As scholastics, they cherished tradition, although they thought it should be open for new developments. Probabilists thus sought no break with the past, but insisted on belonging to a great scholastic tradition.⁵¹ However, this fact did not in their eyes forestall progress, on the contrary, it was a precondition for a patient, cumulative and collaborative approximation of truth in the long run.

4. Anti-probabilist backlash

A pro-modern attitude was, of course, not universally appreciated in Catholic moral theology. It may have been tolerated by theological opponents in the first half of the seventeenth century, but the climate of opinion in moral theology changed considerably in the second half of the century. As the allegedly all too lenient ('laxist') side of probabilism emerged in high profile, critics began to look for counter-measures. One of these measures was overt opposition to a predilection for recent authors. For many critics of probabilism, reverence for the great theologians of the past had to again be inculcated.

This was not only a question of respect for tradition, but also of caretaking of the present. The critics of probabilism feared the breakdown of any meaningful guidance of consciences due to a hyperinflation of authorities and extrinsic probability. In their eyes, it became practically impossible to

⁵¹To the best of my knowledge the mainstream view, expressed by Deman (1933), that probabilism, understood as a permission to follow a less probable and less safe opinion, was created by Bartolomé de Medina and cannot be ascribed to any earlier scholastic author is correct, see also Blic (1930).

defend the boundaries of faith and morality, and to safeguard the moral foundations of Catholicism, if the opinion of each and every modern theologian or casuist counted as authoritative. The numbers of such possible bearers of authority had greatly multiplied after the reform of clerical training by the Council of Trent. Thus, the very success of Trent's (and the Jesuits') educational program threatened to undermine the authoritative basis of moral and theological guidance. The devaluation of new casuistry in favor of the authority of a few great ancient and medieval theologians appeared as a suitable remedy.

This view was held by an astonishingly broad assortment of groups and factions in the Catholic Church, although it concurred with Protestant teachings as far as the ancient Fathers of the Church were concerned. One particularly pronounced such group were the Jansenists. Many Jansenists broke with Aristotelian science and, like another anti-probabilist group, the Oratorians, earned themselves a place in the master narrative of incipient modern science. Hence, neither Jansenists nor Oratorians should straightforwardly be regarded as anti-modern. Opposition to modern casuist opinions did not imply a general anti-modernism. The great Oratorian and Cartesian Nicolas Malebranche headed a circle of mathematicians who established the new infinitesimal calculus in France and inaugurated the great French tradition in this discipline.⁵² In his *The Search after Truth*, Malebranche praised innovative, self-reliant thinking in philosophy and the sciences, but at the same time, insisted on the opposite in theology:⁵³

“In matters of theology, we should love antiquity because we should love the truth and the truth is found in antiquity. ... But in matters of philosophy, on the contrary, we ought to love novelty for the same reason that we must always love truth, search after it, and have an incessant curiosity for it.”

The differences between Malebranche's approaches to theology and philosophy (or science) mirror an assumption of different epistemic conditions of reason and faith. Faith must rely on tradition, according to this view, whereas reason has no place for it. Since Christian morality depends on faith, it is also to be 'found in antiquity'. Hence, Malebranche had a domain-

⁵²See Nadler (2000: 25).

⁵³Malebranche (1997: 146).

restricted appreciation of modernity. Like most modernizers of the seventeenth century, he did not embrace modernity on all possible fronts. Some modernizers were progressive in science and conservative in morality, while others were conservative in science and open to moral change.

Blaise Pascal was the Jansenist spokesman with the greatest public appeal and the most lasting literary influence. For many, his satirical attack on probabilism and the morality of the Jesuits is their only window to the great seventeenth-century debate on probable opinions. In the fifth *Provincial Letter*, Pascal targeted, among other things, probabilism's appreciation of modern casuistry:⁵⁴

“‘I do not know how you manage when the Fathers of the Church are against one of your casuists.’

‘You do not understand much about it’, he said [the Jesuit interlocutor]. ‘The Fathers were good for the morality of their time; but they are too remote for the morality of ours. It is not they who lay down the rules anymore, it is the modern casuists. Listen to our Father Cellot ...; ‘In moral questions, the modern casuists are preferable to the old Fathers, although these were closer to the Apostles’. [...]

‘Look at Diana, who has written a tremendous lot; at the beginning of his books he lists the authors quoted. There are 296 of them, and the oldest goes back eighty years.’

‘So this has come into the world since your Society?’ I said.

‘More or less’, he replied.

‘In other words, Father, your arrival has meant the disappearance of St. Augustine, St. Chrysostom, St. Ambrose, St. Jerome and others as far as morality is concerned.’”

Pascal's *Provincial Letters* were a cleverly calculated attempt to sway public opinion, whose importance had at the time received an important boost

⁵⁴Pascal (1982: 85-86). See Ferreyrolles (1984); Le Guern (2009); Parish (1991) on Pascal and the *Provincial Letters*.

through the rising culture of literary salons. As far as probabilism was concerned, which Pascal depicted as a genuinely Jesuit doctrine, his critique was in step with the historical trend, at least in France. Probabilism's demise in France began around the time of Pascal's invective, and the power of the salons contributed more than a little to it. The *Provincial Letters* offer no sustained argument why it should be absurd to consider the practical morality of the Fathers of the Church as outdated. After all, their moral views were by then more than a millennium old and had been conceived for a very different kind of society. Of course, historical relativity was not to the taste of Catholic theologians. Yet the assumption that scholastic analyses fostered an increasingly precise and superior understanding of an unchanging morality allowed for some moral change. Moreover, new cases called for new interpretations of old rules. Nevertheless, despite such possibilities, the spell of the ancients was still very strong in classical French culture. Many of those who in their salons hardly modeled their lives on Augustine, paid lip service to the great moralists of antiquity, be it religious moralists as the Church Fathers or secular ones, such as Cicero or Seneca.

A denial of modernization in morality and theology can also be gleaned from the works of the Jansenist Pierre Nicole, who is reckoned among the new philosophical avant-garde due to his co-authorship with Antoine Arnauld of the *Logic of Port-Royal*. Nicole was an author whose arguments were taken seriously by scholastic opponents. Under the pseudonym Wendrock (literally meaning 'turncoat' in German), he published Pascal's *Provincial Letters* in 1658, together with a long analytical commentary. The commentary endowed Pascal's satire with a serious theological and argumentative underpinning. Nicole did not write much about the authority of ancients and moderns in his commentary, but his writings document a conservative bias for the ancients. It is ironic from this perspective that Nicole is considered more of a modernizer of thought in standard intellectual historiography than the friends of the *moderni* among the probabilists. In a relentless attack on the authority of contemporary casuists, Nicole accused them of superficiality. A farrago of volatile opinions does not render a person learned, he quipped. Learnedness is rather represented by the investigation of antiquity, the diligent interpretation of the Fathers of the Church, and the

devout and humble meditation of the Holy Scripture.⁵⁵ The Church had flourished for fifteen-hundred years, he rambled on, before the pest of casuistry began to spread. Up to 1550, Bellarmine counted only twelve casuists, and now it seemed there was nobody who did not comment on cases of conscience. Casuists had spread in Christendom like Egyptian locusts, leaving nothing in morality untouched. Clearly, the inflation of casuistical writings in the seventeenth century undermined the authority of modern casuists in Nicole's eyes. Like most Jansenists, he was particularly hostile towards modernizing casuists, whom he considered temerarious, whereas moralists who reverted to antiquity, patristic opinions, and Holy Scripture were to be praised.

Of course, Jansenist intellectuals were not the only ones who opposed the pro-modern attitude of probabilists. Right at the center of Catholicism in Rome, a growing number of influential clerics began to turn against probabilism in the 1650s. They were motivated and backed by Pope Alexander VII, who one decade later, as we have seen, condemned Rocaful's pro-modern opinion. (This Pope, however, like many others, either did not want to or did not feel secure enough to launch an all-out strike against probabilism). One of the most important opponents of probabilism, stirred into action by Alexander VII, was the canon lawyer Prospero Fagnani. The first volume of his commentary on canon law, published in 1661, contains a detailed critique of probabilism. Like Nicole and most other anti-probabilists, Fagnani touched upon the relation of ancient and modern authorities only in passing. He boldly claimed that one should be more deferential to ancient wisdom than to modern scholars following Job 12, 13 "In antiquity is wisdom, and prudence in long time".⁵⁶ Fagnani was aware that defenders of the moderns and their authority could refer to a papal decision by Clement V to endorse a modern opinion in a council. As a canon lawyer, Fagnani acknowledged this decision as authoritative, but he limited its implications. Clement's decision in one case did not justify a general assumption of equality between ancient and modern sources.⁵⁷

⁵⁵Nicole (1658: 101): "Doctum non facit volaticarum opinionum incondita farrago; sed antiquitas pervestigatio, sanctorum Patrum diligens evolutio, Scripturarum jugis & humilis meditatio. Ex his fontibus omnis moralis disciplina cognitio petenda est".

⁵⁶Fagnani (1765: 161), n. 349: "Negari autem non potest, quin auctores, qui hanc sententiam probarunt, sint ex antiquis sapientibus, quibus ... magis est deferendum quam doctoribus modernis, secundum illud Job 12.13. „In antiquis est sapientia, & in multo tempore prudentia". I quote an epitome of Fagnani (1661) on probable opinions.

⁵⁷Fagnani (1765: 162), n. 353.

Other anti-probabilists launched personal attacks against the most prominent and distinctive advocates of a pro-modern attitudes. The main target was Caramuel, whose extravagant style and claims elicited the ire of his opponents. Vincent Baron devoted an entire section of his *Theologia moralis adversus laxiores probabilistas* (1667) to the defense of the *antiqui* and to the critique of Caramuel.⁵⁸ The latter for Baron was the prime example of a novelty-seeker who neglected the ancients, and above all the Fathers of the Church, while on the other hand praising new opinions that formerly had been considered improbable. Baron directed a whole barrage of quotes from ancient and not so ancient sources against Caramuel. The quotes assert mainly one thing: that good Christians should follow established precedent, especially if set by the Fathers of the Church. Novelty is to be shunned, antiquity to be retained (*vitandam novitatem, tenendam antiquitatem*). The morality of the Fathers is the right morality. It is therefore prudent to abhor the words *novator* or *novitas*, and to burn novelties (and innovators?) with fiery passion.⁵⁹

Even before Baron, such dangerous accusations coming from a growing number of opponents had had their effect on Caramuel. In the expurgated 1657 edition of his *Theologia moralis fundamentalis*, he toned down (or had to tone down) his praise of the living doctors as compared to the Fathers of the Church. The initial letter to fellow-doctors and friends retained its exuberant style, and Caramuel still professed to know nobody who was on a par with the listed contemporaries.⁶⁰ However, he added a passage on the Fathers of the Church, whom he insists never to have wanted to denigrate. Nobody could compare to the Fathers, he wrote, but that is the farthest extent to which Caramuel was ready to dilute his pro-modern stance.

A few anti-probabilists, such as Giulio Mercori, adopted a more relaxed stance with respect to the quarrel between ancients and moderns (truly ancients, if the focus was on the Church Fathers). Mercori generally refrained from invectives against his opponents and instead relied on careful argumentation for effect. As a result, he was respected and esteemed even by his probabilist antagonists. True to his sober approach, Mercori stated that he

⁵⁸Baron (1667: 62), tom. 1, disp. 1, sec. 2: “Nimiae recentiorum laudes quae in contemptu antiquorum vergunt, refelluntur”. I focus here on Baron rather than on Sinnich (1665) on whom Baron’s discussion of this issue builds, because Sinnich’s discussion is dispersed throughout his book.

⁵⁹Baron (1667: 69), tom. 1, disp. 1, sec. 2: “Mirum est adeo abhorrere a nomine novatoris seu novitatis, et rei ipsius ardentissimo affectu flagrare”.

⁶⁰Caramuel (1657: 11), epistola ad doctores.

in no way intended to hurt the reputation of recent authors, many of whom he admired. He proceeded with a focus on recent authors of more than mediocre authority, and asked whether the old ones were to be preferred in moral matters.⁶¹ Mercori gave a differentiated answer. Recent authors could be more authoritative in matters that changed with time, which is sometimes the case in morality, and regularly in matters of human legislation. The *antiqui*, however, were more trustworthy with respect to the apostolic traditions and how God's mandates were to be observed, because they were closer to the sources of these traditions from which they therefore received clearer water.⁶²

Moreover, Mercori raised obstacles for the authority of recent authors. He claimed that for the introduction of a new moral standard (*nova regula morum*) against the common opinion of the *antiqui*, it did not suffice to have twenty or thirty years of approval, a criterion which some new opinions might actually satisfy. True approbation must be backed by a much longer period of acceptance, because moral views vary with the prevailing passions.⁶³ (It thus takes some time to identify stable changes). Finally, probabilists disagreed among themselves about the scope and limitations of their doctrines. The problem was therefore not so much a contest between the moderns and the ancients, but between fractions of the moderns and the consensus of the ancients.

The anti-probabilists discussed so far were all part of the first big wave of opposition to probabilism that swept through Catholic moral theology in the 1650s and 1660s. It would be wrong, however, to think that the defense of the *antiqui* and the ancient Fathers of the Church, in particular, was a priority only on the early anti-probabilist agenda. Attacks on pro-modern probabilists and defenses of the ancients in anti-probabilist writings continued deep into

⁶¹Mercori (1658: 178), pars 2, art. 27: "Protestor me occasione huius comparationis nolle aliquid diminuere de recentiorum doctorum estimatione, quorum scripta veneror ... Suppono ergo recentes scriptores esse plusquam mediocris auctoritatis; & solum quaero, an antiquiores sint in hac materia praeferendi".

⁶²Mercori (1658: 180), pars 2, art. 27: "In his tamen, quae concernunt traditiones apostolorum, communemque, & quotidianum, ac usitatum modum observandi Dei mandata, potius antiquioribus est quiescendum: cum enim ipsi fuerint viciniore fonti, a quo emanavit traditio haec, quomodo nimirum in controversia opinionum sit regulanda conscientia, praesumendam est aquam verae intelligentiae dictae traditionis ad ipsos puriorem derivatam esse".

⁶³Mercori (1658: 178), pars 2, art. 27: "ubi agitur de introducenda nova regula morum contra communem sensum doctorum antiquorum, non sufficit applausus viginti, aut triginta annorum, quo aliqua volumina de hac materia solent aliquando recipi; sed vera approbatio sincere doctrina longe diuturnius exigit tempus, quia sicuti variantur affectus, mutantur mores".

the eighteenth century.⁶⁴ The momentous assembly of the French clergy in 1700 demanded allegiance to ancient authority and the Fathers of the Church, as anti-probabilists subsequently pointed out with relish.⁶⁵ Bishop Bossuet, the mastermind behind the assembly, had forcefully promoted a pro-ancient stance.⁶⁶ In a letter to François Durois from 1682, he discussed a planned declaration of the French clergy in which, among other things, the ‘new morality’ (*nouvelle morale*) of both the probabilists and permissive casuists was condemned. Bossuet pointed out that all Christian morality had to be evaluated for conformity with Holy Scripture and the doctrine of the Fathers of the Church. The ‘new morality’ had to be debunked, because there was nothing more alien to sound Christian teaching than novelty and the unheard.⁶⁷ For this reason, Bossuet considered it absolutely essential to condemn six sentences, which had been listed as numbers 114–119 of the declaration. Three of them deserve to be highlighted here:⁶⁸

“114. The doctrine of faith is to be drawn more from the ancients, the doctrine of morality more from the moderns.

115. Everything is presumably today better examined, and therefore in all matters and above all in moral ones, I prefer to read and follow the moderns than the ancients.

118. The objection ‘the opinion seems to be new’ should not bother the learned. For the whole of moral theology is new. Who would dare to deny that in Diana [that is, his manual] there exist today hundreds of opinions which Augustine and the ancient fathers did not know?”

⁶⁴See, e.g., Habert (1747), tom. 3, cap. 4; Brocardus (1735), q. 2, a. 6, n. 185; Cotta (1728: 71); Lacroix (1707), lib. 1, q. 60.

⁶⁵See Habert (1747: 299), tom. 3, cap. 4.

⁶⁶Bossuet (1909: 324), Vol. 2, lettre 260.

⁶⁷Bossuet (1909: 324), Vol. 2, lettre 260: “le fondement le plus clair et le plus essentiel contre le nouvelle morale, c’est que elle est nouvelle, n’y ayant rien de plus contraire à la doctrine chrétienne que ce qui est nouvelle et inoui”.

⁶⁸Quoted from Bossuet (1909: 325), Vol. 2: “114. Doctrina fidei a veteribus, doctrina moris magis a iunioribus petenda. 115. Puta omnia esse hodie melius examinata, et hanc ob rem in omnia materia, et praecipue in morali, libentius iuniores quam antiquiores lego et sequior. 116. Non ergo opinio improbanda eo quod ab antiquioribus non fuerit tradita. 117. De sententia doctorum antiquorum verum sciri non poterit nisi ipse Thomas, aut Augustinus, aut alii excitentur a mortuis. Praestat igitur adire vivos quam recurrere ad mortuos, qui nequerunt mentem suam explicare. 118. Haec objectio, ‘opinio nova videtur’, doctum urgere nequit. Nam tota moralis theologia nova est. Quis enim negare audebit esse hodie in Diana centenas opiniones quae Augustino et antiquis patribus ignotae erant? 119. Licet ex solo rationis lumine dijudicare quando quis privatus possit pro tuenda vita vel bonis vel honore aliquam occidere”.

Bossuet's campaign against the 'new morality' shows how serious the split between the proponents of the moderns and those of the ancients in Catholic moral theology had become. In the eyes of their opponents, permissive casuists consciously or unconsciously supported moral change and moral deregulation. From the perspective of Bossuet, this tendency had to be curbed. Sentence 118 was not by chance taken from the works of Juan Caramuel.⁶⁹ For his many adversaries, Caramuel more than any other moral theologian represented the view that moral theology had to adapt to the spirit of the times.

The issues that preoccupied Bossuet were extensively and critically discussed (the most extensive discussion I am aware of) in Gabriele Gualdo's *Tractatus probabilitatis* (1707). Gualdo (1659–1743) devoted an entire chapter of his book to the question whether precedence in the treatment of moral problems should be given to the ancients or the moderns.⁷⁰ He summarized the debate succinctly: the modern probabiliorists promoted the ancients, the probabilists endorsed the moderns.⁷¹ Somewhat unusually, however, Gualdo counted authors as *antiqui* if they had written more than two hundred years before his time, that is, before the year 1500 AD in absolute terms. This is an indication that he already operated with the beginning of the sixteenth century as the date for the transition from medieval to early modern scholasticism. In fact, he sometimes explicitly referred to the later *antiqui* as medieval ancients (*antiqui medii temporis*) in contrast to the ancients of the first age (*antiqui primi temporis*). As for precedence, Gualdo opted for a distinction. The ancients excelled with respect to morality in scholastic academic discussion (*in scholis*). That is, they deserved precedence in what we would call theoretical ethics. However, they did not develop a practical ethics in detail, partly for the reason that there were only few confessors in their time and less demand for confession. In Gualdo's time, in contrast, it was the daily bread-and-butter business of moral theology to answer people's specific questions about problems of agency. The answers to these questions could not be found in Aquinas and other great scholastic theorists, nor in medieval handbooks of confessors. Both these sources went into insufficient detail in matters of practical morality, and their general views were open for controversial

⁶⁹Caramuel (1652), fund. 60, n. 1268.

⁷⁰Gualdo (1707), Chap. 17: "An sit magis deferendum antiquis, vel modernis in difficultatibus moralibus". Gabriele Gualdo was a pseudonym of the Italian moral theologian Niccolo Peguleti.

⁷¹Gualdo (1707), Chap. 17, n. 1: "Probabilioristae moderni pro antiquis, probabilistae vero pro modernis pugnant".

interpretations. Hence, ‘modern’ moral theologians had to revert to the works of great casuists, such as Castropalao, Diana, Bonacina, and Laymann, to help them solve cases of conscience competently.

Gualdo thus justified a preference for moderns in morality with the need to give counsel in particular cases. The requirement to do so in a controlled, discussable, and competent way rendered it well-nigh impossible to rely on medieval scholastics and ‘pray for divine inspiration’ in their interpretation, as Gualdo pointed out.⁷² Moreover, scholasticism was a cumulative endeavor. The great ancients, such as Augustine or Aquinas, had themselves rendered older doctrines more explicit by interpretation and added new questions to old ones. Modern moral theologians did the same. Since truth was to be found at the later stages rather than at the beginning of a cumulative intellectual endeavor, the more modern scholastics were likely to be closer to truth than their predecessors. This even included the fields in which the ancient scholastics had excelled. The moderns knew all the old arguments together with new objections, and had pondered the underlying issue in more detail. Gualdo, in other words, depicted the enterprise of scholastic theology as eminently progressive. Progress in this respect meant that more reasons were weighed as time went by, each of which received deeper consideration, while generations of scholars continuously differentiated this reasoning process into a tree with ever finer branches.

We have found this line of justification in earlier authors, as for instance, Caramuel. However, Gualdo unfolded it in a particularly circumspect and balanced way, also to the point of accounting for the objections of anti-probabilists, who had proliferated considerably by his time. Note the differences between Gualdo’s defense and the accusations of opponents, such as Pascal or Bossuet. Pascal wrote: “the Fathers were good for the morality of their day, but they are too remote for ours” (see above), insinuating that probabilists and lax casuists tried to replace the good old Christian morality with a new morality that reflected the spirit of the age. A similar undertone is present in Bossuet’s warning concerning a ‘new morality’. Probabilists and lenient casuists were thus styled by two highly influential opponents as modernizers in a characteristically modern sense of modernity, namely that of breaking with the past.

However, if we follow Gualdo, breaking with the past in morality was not an aim of scholastic moral theologians of whatever allegiance. Indeed, I

⁷²Gualdo (1707), Chap. 17, n. 7.

know of no probabilist who would have supported such a break, not even Juan Caramuel in his published works. Caramuel might have been more radical in his personal communications because he openly praised the greater freedom of private communication.⁷³ Yet this is a matter of speculation. Published probabilist opinion did not venture beyond the claim that the morality of the Church Fathers needed to be complemented with modern opinions, above all in matters on which the Fathers had been silent, and so on, but no open break was advocated. Progress was viewed as a product of a cumulative intellectual endeavor, which established an expanding research front, but a break with the past would have been most unhelpful for producing the esteemed gradual progress.

5. *The querelle des anciens et des modernes: Parallels and influence*

The *querelle des anciens et des modernes*, which rocked French intellectual life after the scandal around Charles Perrault's adulatory poem *The century of Louis XIV (Le siècle de Louis le Grand)* in 1687, was above all, a literary event.⁷⁴ The propagandists (the word is suitable for Perrault) of the moderns elevated them to a higher rank than great ancient writers, such as Homer, Virgil, Pindar, Horaz, or Ovid. More than a few academicians and visitors of literary salons were shocked at so much cheek. They pointed out that modern authors derived their rules and principles of writing from the great ancients. A significant part of the importance of the *querelle* results from the fact that the friends of the moderns helped undermine these principles right at the time when their demise in modernity slowly began to gain speed. Yet what do these literary issues have to do with the quarrel between the friends of the *antiqui* and the *moderni* in seventeenth-century Catholic moral theology? Actually, I will not argue here for a strong link. This, in any case, would require more space than presently available (and even more specific research). Nevertheless, there are interesting parallels between the two quarrels; parallels that are already recognizable against the background of what has been said about pro-modern probabilism in this chapter.

⁷³Caramuel (1657), fund. 8, n. 335.

⁷⁴There is a mountain of literature on the French *querelle*, see, e.g., Fumaroli (2001); Kortum (1966); Mayer (2012). Its ramifications in Britain are discussed in Levine (1994), and its Italian prelude in Buck (1973); Margiotta (1953).

Before elaborating on these parallels, a few introductory words on the *querelle des anciens et des modernes* seem in order. As indicated, the French *querelle* was mainly about the relative rank of ancient and (near) contemporary poets, but it extended to all branches of high culture, including architects, artists, scholars, and scientists, not to forget gardening and cooking. The friends of the moderns, led by Charles Perrault (1628–1703), claimed that in almost all fields of intellectual and artistic endeavor, modern authors outperformed their ancient Greek and Roman predecessors.⁷⁵ Perrault, who celebrated the age of Louis XIV as a new golden age, selected the moderns from French classical culture, that is, from a period beginning with Richelieu's reign and extending to Louis XIV's. For Perrault, it was beyond question that modern science, navigation, geography, and anatomy were far superior to their ancient predecessors. The question could only be whether the moderns outperformed the ancients in the fine arts, eloquence, and poetry as well. In these fields, Apelles (painting), Praxiteles (sculpture), and Vitruv (architecture); Demosthenes and Cicero (oratory); Homer and Virgil (epos); Pindar and Ovid (poetry), to name but a few, represented standards of excellence that were difficult to beat. Perrault, however, argued that the writers and artists of Louis XIV's era outranked the ancients even in these fields. Le Brun was better than Apelles and Raphael; Versailles beat every ancient ensemble of buildings; Bossuet and Bourdaloue (the cream of French preachers under Louis XIV) at least equaled Demosthenes and Cicero in oratory; one did no longer write verse eposes in serious, but the new genre of the novel was of no lower rank; Corneille and Molière need not fear comparison with Euripides and Aristophanes as playwrights. Perrault was not one hundred percent convinced that the moderns had the upper hand in eloquence and poetry, where he admitted that a draw might be acceptable. On the whole, however, French culture under the Sun King was superior to the cultures of Athens and Rome (even under Augustus).

The defenders of the ancients, who were only a bit less adulatory of Louis XIV than Perrault, insisted on the prevalence of the great ancient authors. The standards they had set were still valid, and moderns could do no better than to creatively cope with them. It was Nicolas Boileau (1636–1711) who triggered the *querelle* with his pro-ancient reaction to Perrault's poem.⁷⁶ Behind Boileau stood the tradition of Renaissance humanism, which accepted

⁷⁵Perrault (1971).

⁷⁶Boileau's anti-modernist position is formulated in Boileau (1998).

ancient precedent as a role model for intellectual best practice. Boileau and other friends of the ancients, however, did not try to defend antiquity in the natural sciences. Insofar, they differed from orthodox scholastic Aristotelians who defended the Aristotelian world view until the bitter end (which at the time of the *querelle* was already very near). Yet with respect to literature and morality, they claimed that the ancients beat all modern competition.

Perrault's plea for French classical culture has often been regarded as the starting shot of self-conscious modernity in European thought and its idea of cultural progress. Some even contend that the *querelle des anciens et des modernes* inaugurated the Enlightenment. In the ample literature on the issue, however, it has also been noted that the roots of Perrault's view reach further back in time. There were precursors in France (e.g. Desmarets de Saint-Sorlin), and in early seventeenth-century Italy (Boccalini, Tassoni). In the sixteenth century, the superiority of 'modern' times over antiquity had been praised with reference to great modern inventions, such as the compass, the printing press, and gunpowder weapons. The setting of the *querelle* was therefore not new. The significance of the French *querelle* is rather to be sought in its immediate relationship with Enlightenment culture and in its significance for French classical culture. With respect to the quarrel between the *antiqui* and *moderni* in the probabilism controversy, on the other hand, the larger context of the literary battle between the ancients and moderns seems more relevant. Against this background, it becomes clear that the probabilist plea for modern theologians and a more modern morality was part of the self-assertion of incipient modernity. But there are also specific parallels with the French *querelle*.

One of the significant features of the *querelle des anciens et des modernes* was that it not only questioned the rank of the ancients but, in part at least, also their authority in literary matters. On the authority of the ancients, for instance, the epic poem was the supreme epic genre, but the moderns believed that the novel was at least equal. Some moderns also questioned Aristotle's rules of drama, or accepted women as arbiters of good literary taste. This beginning dissociation from ancient rules and standards became much more characteristic of modern literature and art than the ranking of ancients and moderns itself. It is therefore conspicuous that the scholastic quarrel on the authority of ancient and modern doctors pointed in a similar direction. It loosened the ties of ancient authority in a culture that was (in France, Italy, and in parts also in Germany) still distinctly Catholic and religious. How

important this process was as an enabler of the literary and artistic relinquishing of ancient authority remains, of course, to be elucidated. Hans Kortum, one of the leading scholars on the *querelle*, at least saw a connection between the idea of progress in this debate and Jesuit attempts at moral theological innovation.⁷⁷ He did not, however, pursue this question further.

A second parallel exists with respect to the wider background of the quarrel between ancients and moderns. Arguments for the superiority of the moderns were usually linked to a set of topics that continuously recurred in the quarrel. Compass, printing press, and gunpowder weapons appeared as a set piece of examples and causes of modern superiority. Instances of new scientific or geographical knowledge were another recurring aspect in the ranking of ancients and moderns. And there was, of course, the old scholastic metaphor of dwarves who could see farther on the shoulders of giants. It deserves to be noted that some of these commonplaces of modernist discourse in the early modern era also appeared in discussions of the relative authority of ancients and moderns in moral theology. Juan Caramuel referred to the discoveries of Columbus and the existence of antipodes to demonstrate that our geographical knowledge was progressive. Like the pro-moderns of the *querelle*, he also denied the declining powers of nature. For the pro-moderns, nature's powers remained the same at all times, so that *ceteris paribus* an equal number of intellectual high potentials were produced in all eras. Whether their potential unfolded, however, also depended on positive or adverse political, economic and climatic influences. A third shared pro-modern topic was that all great ancient achievements were new in their time. This is relevant for the assessment of Roman achievements relative to those of the ancient Greeks, such as Virgil's in comparison to Homer's, as much as for Aquinas' relative to Augustine's or Aristotle's. (Remember that Caramuel considered Aquinas as more perspicacious than Aristotle). Finally, the example of jurisprudence is used in the scholastic as well as the literary quarrel in a pro-modern way. Scholastics often emphasized that new legal regulations superseded old ones, and that modern juridical commentaries, which were informed about these changes, were therefore often more authoritative and less likely obsolete than classical commentaries. (Classical textbooks of jurisprudence were often repeatedly commented and annotated for this reason). Alessandro Tassoni (1565–1635), an important Italian precursor of the pro-moderns of the French *querelle*, also made use of this juristic topic. He

⁷⁷Kortum (1966: 8).

argued for the moderns with a passage from the medieval *Glossa* which claims that in legal matters, the opinion of the *iuniores* should be preferred.⁷⁸

Tassoni is not least an interesting figure for us because he was a representative of the literary culture in Rome under the Borghese and Barberini papacies. His appreciation of the moderns reflected the strive for a 'renovation of Rome's glory' (*renovatio Romae*), which the Barberini finally believed to have achieved. The Christian Rome of the Baroque era was considered culturally on a par with the Augustan Rome in its golden age, a view to which Tassoni gave expression in book ten *On the Genius of the Ancients and Moderns* of his *Pensieri diversi* (first published in 1620). This background should not be disregarded when we speak about the rise of pro-modern attitudes among moral theologians in the Barberini era. Like the artistic clientele of the Barberini, their affiliated moral theologians lived under the impression of a culturally glorious present that equaled or even outstripped antiquity. Tassoni supported such attitudes by including theology in his comparison of ancient and modern achievements.⁷⁹ The ancients may have excelled in positive theology, since they received the Holy Writ and the teachings of the Apostles. But for perfection in theology, its scholastic branch was also necessary, and this was the domain of the moderns. (In Tassoni, 'ancient' refers truly to antiquity, and medieval thinkers count as moderns). As examples of great modern theologians, Tassoni mentioned Albert the Great, Aquinas, Henry of Ghent, Duns Scotus, and some scholastics who were his contemporaries, such as Molina, Suárez, Vazquez, and Bellarmino. This shows that the appreciation of moderns in Baroque moral theology arose in a cultural climate in which protagonists of the Italian quarrel between ancients and moderns expressed high esteem for scholastic theology.

6. Conclusion

In the minds of contemporaries, probabilists had a predilection for modern opinions, whereas anti-probabilists emphasized the superiority of the great scholars of the past. At closer inspection, not all probabilists shared a pro-modern stance and the basic formula of probabilism was neutral concerning

⁷⁸Tassoni (1627: 559), book 10.

⁷⁹Tassoni (1627: 570), book 10, Chap. 4.

the period of origin of probable opinions. Nevertheless, the markedly pro-modern stance of some high-profile probabilists became characteristic of probabilism in the eyes of many observers. As shown in the first sections of this chapter, no distinct quarrel between the ancients and the moderns seems to have emerged in theology before the seventeenth century. Thereafter, however, a significant number of moral theologians (all probabilists) postulated a greater authority of modern relative to ancient authors, above all with respect to applied morality. This trend was broad enough to become a prime target of the anti-probabilist counterstrike in the second half of the seventeenth century. Hence, the scholastic quarrel between ancients and moderns, which has been almost completely ignored by historians, confirms that a larger *querelle* of this kind was, indeed, unfolding in the seventeenth century. It should also be noted that the French *querelle des anciens et des modernes*, and its Italian precursor, shared many aspects and arguments with the scholastic quarrel.

The pro-modern attitude of probabilists, as far as it existed, was backed by a concept of progress, and insofar they may with some justification be called ‘modernizers’. In the scholastic debate on the relative authority of ancients and moderns, friends of the moderns depict scholasticism as a cumulative, knowledge generating enterprise, in which generation after generation of scholars added to an existing stock of insights. This is achieved by critical argumentation, weighing of reasons, addition of new considerations, differentiation, and by making implicit claims and assumptions explicit. On these grounds, the scholastic research front was believed to approach truth ever more closely over time. Modernity is not understood within this framework, as so often today, as a momentous break with old errors and misconceptions, but as the front of a slowly and gradually expanding sphere of knowledge. The avant-garde of thinkers in the seventeenth century is called modern in retrospect because they displayed a violent language of rupture, even more so in fact than actually breaking with old worldviews. Processes of modernization should not, however, be exclusively judged from the vantage point of their outcome. Scholars who endorsed scholasticism as a continuously progressive intellectual enterprise were also modernizers in a recognizable sense of the term.

In the eyes of their opponents, probabilists went even further and worked towards a break with good old Christian morality. Whether they did

so is, of course, debatable. In intention, a disruptive vision of modernity⁸⁰ is not to be found in probabilist writings. Yet that does not imply that probabilists and anti-probabilists could not have helped spread this vision, and be it through the judgment of opponents, in the emerging public of the time. This issue is again under-researched, and I will only offer one example to show that it is not moot. In his *Apologia de' teologi scolastici* (1739–1741), Pietro Giannone, one of the luminaries of the early Italian Enlightenment, inveighed against the harsh morality of the Fathers of the Church. Imprisoned because he had communicated his mind too freely, he had only been allowed to read the Church Fathers to keep his mind alive – which had not endeared them to him. As an antidote to the overly harsh morality of the Fathers and of all kinds of rigorists (*rigoristi*), as Giannone called them, he praised, among other things, the more humane morality of some notable probabilists. Pietro Sforza Pallavicino and Tomás Sanchez were mentioned by name. The latter, Giannone remarked, had freed the poor husbands and wives from many chains so that they could enjoy their marriage with more liberty.⁸¹ Here, then, is the modernist image of breaking the chains of old constraints with reference to Sanchez, a notable probabilist.

⁸⁰I use the word 'disruptive' here to indicate a link with theories of disruptive innovation (see Christensen 1997). But it would lead us too far away from our main narrative to pursue this link further here.

⁸¹Giannone (2011: 423): “Non fu dunque a proposito che venisse il padre Sanchez gesuita col suo trattato ‘De matrimonio’ per confondergli e liberare I tapini mariti e le spigoliste mogli da tanti lacci e catene, sicchè con maggior libertà potessero valersi de' loro matrimoni?” For the other references, see Giannone (2011: 174, 413). Giannone, who was active in Naples, could have also been influenced by Caramuel, whose impact on the Neapolitan intellectual avant-garde is well known, see Galasso (1972: 113, 410).

Chapter 8: The Great Debate on Probable Opinions (1656–1700)

In the 1640s, a far-reaching controversy over probabilism began to take shape, which broke out in earnest after 1656. It pitted probabilists—until then predominant in seventeenth-century Catholic moral theology—against a rising number of anti-probabilists. The ensuing intellectual (and ecclesiastical-cum-political) battle led not only to acrimonious power struggles in the Catholic Church, but also to highly sophisticated theoretical argumentative exchanges. No aspect or foundation of probabilism was spared critical scrutiny, and consequently, the scholastic pluralism of opinions was raised to a new and deeper level of reflection. Baroque scholasticism in general was full of innovative discussions, but the areas of discourse in which innovations occurred had usually already been thoroughly analyzed before in the scholastic tradition. This was, however, not the case for issues of probability and the choice of opinions, because scholastics had never before investigated their foundations in similar breadth and depth. It is therefore only possible to address a few elements of the great scholastic debate on probable opinions in this chapter, the focus of which will rest on questions that were relevant for the epistemology (and moral epistemology) of a pluralism of opinions.

The rise in importance of such questions in the second half of the seventeenth century is already heralded by the structure and titles of treatises on probable opinions from this period. Considerations concerning the use of probable opinions had in early modern scholasticism mainly been couched in commentaries on Aquinas' *Prima Secundae* (that is, the first section of the second part of the *Summa theologiae*). Later, they could also be found in specialized books *On conscience*, but towards the middle of the seventeenth century, a further step in specialization was taken with the appearance of books or book-length inquiries on probable opinions and their choice (*de opinione probabili, de electione opinionum*). Such inquiries were nothing else but expanded analyses on the 'probable conscience' and its foundations, and as such not really a new venue. However, their new breadth and depth was unprecedented. The rise of a genre of works called 'Foundations of Moral Theology' (*fundamentum theologiae moralis* or *basis theologiae moralis*) was

particularly conspicuous in this respect.¹ Books with this title almost always dealt with the epistemological, and more precisely social epistemological, foundations of moral theology, which consisted mainly of the art or science of probable reasoning, because certainty of knowledge was hardly attainable in applied moral theology (or practical ethics). Consequently, the meaning of probability, the nature of probable opinions, and how they could be used to form reasonable judgments were fundamental for moral theology. These issues had to be analyzed and ascertained before moral theology could be set to work, which meant that moral theology relied on a predominantly philosophical basis. The relation of philosophy and theology in the scholastic tradition had always been somewhat ambiguous. From a theoretical theological perspective, philosophy was a mere handmaiden of theology. In practice, however, the relationship was much more complex, or better, it was as complex as the relationship between master and servant can become in reality. Both probabilist and anti-probabilist foundations of moral theology assume that the mistress could not effectively operate without the help of her handmaiden. The Catholic moral theology of the Baroque era openly acknowledged its dependence on epistemological foundations, including elaborate epistemic ethics (or an epistemic moral theology, if you want). Quotations from the Bible or the Church Fathers usually supplemented rational arguments, protecting probabilists' flanks against attacks from devout Christians. Anti-probabilists tended to defend the authority of the Fathers of the Church, whose views were integral to their endeavor, but even anti-probabilists took pains to offer enough unadorned rational argumentation to render their claims philosophically self-contained. Epistemology was therefore a major battlefield between probabilists and anti-probabilists; the *fundamenta* of moral theology from the second half of the seventeenth century bear witness to its importance.

This trend is already observed in Juan Caramuel's *In Benedicti regulam* (1640) and Andrea Bianchi's *De opinionum praxi* (1645).² We can thus speak of an intensification of epistemological concerns in Catholic moral theology in the 1640s, and it is in my view not merely coincidental that emerging modern philosophy became at the same time preoccupied with epistemological issues,

¹See Niemann (1995).

²Fleming (2006: 8) writes that Caramuel had already embarked on a fairly detailed discussion of probability in his *Theologia regularis* of 1638 or 1639, but I could not obtain these early editions of this book, and Fleming herself uses *In Benedicti regulam* as a basis for her analysis. It may therefore be justifiable to use the latter as a starting point.

for instance, in the works of Descartes.³ Descartes knew that he could not dispense with probable reasoning in the practice of morality or the sciences, but he aspired to greater certainty in the long run. A quest for certainty is one possible response to the problems of epistemic guidance, which also preoccupied scholastic moral theologians. However, the Cartesian response was not on their agenda. The mainstream of Catholic Baroque moral theologians acknowledged that probable reasoning was to remain the sole feasible basis of moral theology. There was no quarrel between probabilists and anti-probabilists in this respect, both understood that probable reasoning was indispensable. Their outlook bears some resemblance to Locke's, who for the rest generally shared more than a few assumptions with opponents of probabilism.⁴ Summing up, we may assume that many epistemological concerns which became virulent in the middle of the seventeenth century were analyzed from various different perspectives. They unfolded in Protestant as well as in Catholic theology, and elicited investigations among the philosophical avant-garde and scholastic establishment. This is worth mentioning, although we will only focus here on a narrow wedge of the spectrum of epistemological debates after 1640.

An emphasis on foundational and epistemological issues was documented in the new treatises on probable reasoning through the proliferation of section titles such as 'What is probability?' (*quid sit probabilitas*), 'What is a probable opinion?' (*quid sit opinio probabilis*), or 'How many kinds of probability are there?' (*quotuplex probabilitas* or *divisio opinionis probabilis*).⁵ These issues had, of course, been addressed before, but they now rose to prominence and were discussed in much greater detail. The reply to the question 'What is a probable opinion?', for instance, was usually a brief definition, and was hardly ever complemented with the explicit question

³The question whether it was Descartes who sparked increased moral theological interest in epistemological issues with his *Discours* (1637) or *Meditations* (1641) can be confidently answered in the negative. Descartes might have influenced Caramuel early on (if we want to speculate), but it is difficult to conceive that he had an impact on Bianchi or the huge stream of authors who investigated the epistemological underpinnings of moral theology in the 1650s and 1660s.

⁴Locke's treatment of probability and assent in Book IV of the *Essay* (see Locke 1990) clearly covers much of the ground that traditionally was covered by scholastic approaches to the choice of opinions. Moreover, Locke's assumptions are incompatible with (scholastic) probabilism. In contrast, there is much overlap with contemporary anti-probabilist claims (see Schuessler 2006a, Chap. 3.3).

⁵Discussion begins to be more detailed in these respects with Caramuel (1640); Enriquez (1646); Spinola (1648); Caramuel (1652); Caramuel (1657); Izquierdo (1659); Caramuel (1663); De Angelis (1667); probably reaching its apogee with the exchanges between Esparza (1666); Terill (1669); Cardenas (1670); Elizalde (1670); Fabri (1670); Terill (1678).

‘What is probability?’ before the middle of the seventeenth century. In the second half of the seventeenth century, by contrast, the comparative discussion of different concepts of probability became standard. From such endeavors, new concepts or interpretations of probability or probable opinion arose, a development which we will inspect more closely in this chapter.

We will also discuss the main epistemological claims of anti-probabilism. The claims and developments of probabilism are more expansively explored throughout the present book than the approaches of its opponents. It seems helpful, therefore, to bundle the treatment of anti-probabilism at least once to give it greater conspicuity. This includes short vignettes on two of the most important theorists of anti-probabilism, Miguel de Elizalde and Tirso Gonzalez. Elizalde was, in my opinion, the single most excellent theorist of anti-probabilism, and Gonzalez had the greatest political and perhaps also theoretical impact. It would have been tempting to confront these two anti-probabilists in the same chapter with the most important mature probabilists (Juan Caramuel, Anthony Terill, perhaps Christoph Rassler). However, considerations of proportionality concerning the length of the present chapter spoke in favor of repositioning short biopics of specific probabilists to other chapters (Chapters 9 and 10).

1. New conceptions of probable opinion and probability

The critical discussion of definitions or conceptions of probability, probable reasons and probable opinions was one of the most characteristic features of the probabilism debate in the second half of the seventeenth century. We have already touched upon this development when dealing with the departure from Aristotle’s *endoxon* as a backdrop for the scholastic understanding of probability (see Chapter 4). A critical assessment of the *endoxon*’s role in delivering a correct account of the probability of opinions can often be found in texts from the second half of the seventeenth century, where it is contrasted with a notion of probability ‘for theologians’ or ‘in theology’. Since we have already dealt with endoxical probability, the respective comments in the sources will not be addressed again here. We will instead turn to other aspects of definitions of probability in moral theology, and how they differed from

standard characterizations of probability from the beginning of the seventeenth century.

A broad, if not impartial discussion of different attempts at defining a ‘probable proposition’ or ‘probable opinion’ can be found in Anthony Terill’s (1621–1676) *Fundamentum totius theologiae moralis* (1669), one of the key texts of an advanced moderate probabilism.⁶ For Terill, the classical definition of probabilism from the early seventeenth century was wanting; according to that definition, a probable opinion had a foundation [in reasons] of some moment, while no convincing reasons spoke for an opposite opinion.⁷ He criticized this definition for being too vague with respect to the reasons that ground probability. Demanding strong reasons or a foundation of some moment clearly left much room for the ascription of probability in practice. Moderate probabilists and anti-probabilists shared the conviction that this situation had to be mended by tightening the standards of probability in moral theology.

Terill also took issue with a definition of probable opinion offered by Juan Caramuel. In *Apologema* (1663), Caramuel had claimed that a probable opinion was buttressed by strong but non-demonstrative reasons, while at the same time, strong but non-demonstrative reasons also spoke against it.⁸ On this basis, Caramuel maintained that the negation of a probable opinion was of necessity also probable. Terill countered this unconventional claim with an example. Historical reports, as for instance, news about a great victory against the Turks, were sometimes probable because they were backed by strong evidence, albeit not beyond reasonable doubt. However, there was often no strong reason at all for the opposite claim, as for instance, that no victory over the Turks had recently been gained. Hence, a proposition could be probable without its negation being probable as well. Terill was more sympathetic to another (of the many) Caramuelian definitions of probable opinion, according to which a probable opinion is backed by a weighty, but fallible and uncertain motive.⁹ A motive (*motivum*), in this context, is a moving force that results from a set of reasons which are directed towards truth. Terill apparently found that Caramuel’s second definition was acceptable, but his own definition (see

⁶For more on Terill and his life, see Chapter 10.

⁷Terill (1669), q. 2, ass. 3, n. 8: “Quae habet pro se fundamentum alicujus momenti, ita tamen ut pro opposita parte nihil sit quod convincat”.

⁸Terill (1669), q. 2, ass. 2: “Quae habet pro se rationes fortes, nullam autem demonstrativam; & quae habet contra se rationes fortes, nullam autem demonstrativam”.

⁹Terill (1669), q. 2, ass. 3, n. 5: “Opinio probabilis est, quae gravi fulcitur motivo, sed fallibili & incerto”.

below) documents that he considered it not nearly good enough to ground a sufficient understanding of probability.

Another definition reviewed by Terill stressed the role of reasonable assent – or assent by reasonable persons. Honoré Fabri had suggested such a definition, calling an opinion probable which—without reaching certainty—is grounded in a reasonable fundament (*rationabilis fundamentum*).¹⁰ A fundament was reasonable for Fabri, if it led persons to reasonable (*rationabilem seu prudentem*) assent; and assent was reasonable if it was acknowledged as such by the wise or knowledgeable (*sapientes*). Terill considered this a laudable definition, although it also lacked something to be fully satisfactory. Sometimes the wise disagreed among themselves, and some endorsed opinions others claimed to lack a reasonable foundation. Therefore, Terill assumed that assent to an opinion was only reasonable without doubt if all, or most, or at least many of the wise considered it reasonable. Fabri did not specify how many of the wise were required for this outcome, and his approach was thus incomplete.

Terill next analyzed the definitions of Martín de Esparza and Vincent Baron, which I will skip here to focus on his reference to Aristotle's famous definition: probable is that what happens frequently (*probabile est quod plerumque contingit*).¹¹ Pietro Sforza Pallavicino had started developing this definition into a frequentist alternative to the established notion of probability in moral theology. Miguel de Elizalde would soon build a more elaborate frequentist approach on the foundations laid by Pallavicino. We will discuss the frequentist approaches of Baroque scholastics in Chapter 12, together with the rise of the modern numerical calculus of probability, not least because they could not gain much ground in Catholic moral theology. The reasons for their lack of success in this field had already been addressed by Terill. Under frequentist premises, two logically incompatible propositions could not be probable—or held to be probable by one person—at the same time. That is, frequentism did not allow for both-sided probability and thus did not support the pluralism of reasonably tenable opinions, which had characterized moral theology since the Middle Ages.¹² Asked to choose between the conceptual

¹⁰Terill (1669), q. 2, ass. 3, n. 9: “Opinio, quae citra certitudinem rationabili fundamento nititur”.

¹¹Terill (1669), q. 2, ass. 4.

¹²To be precise, I should say that frequentism could not be used in moral theology on a subjective level of judgment, that is, for a probability ‘pertaining to us’ (*quoad nos*). By contrast, frequentism could be upheld in moral theology as an objective account of probability. As we will see in Section 2, Baroque scholastics made such distinctions, but I do not presently use them for simplicity's sake. It remains a fact that Terill opposed the use of frequentism in moral theology.

advantages of frequentist approaches to probability and the pluralism that characterized their field of study, moral theologians typically opted to uphold the latter. This was also a major impediment to the application of the mathematical calculus of probabilities to questions of moral theology. Jacob Bernoulli and other mathematicians tried to overcome this roadblock, yet without much success. Only in the second half of the twentieth century did non-standard mathematical approaches to probability and plausibility arise, bearing the promise of satisfactorily representing both-sided probability and a pluralism of alternative reasonable opinions.¹³ Last but not least, Terill already discovered one of the classical weaknesses of frequentist notions of probability. He pointed out that even propositions concerning non-repeated or non-repeatable events or states of affairs could be probable or improbable. He used the claim that the heavens are fluid (*caelum esse fluidum*) as an example, that is, they did not, as some medieval authors had believed, consist of rotating crystal spheres onto which stars were pinned.

Terill's analysis of definitions of 'probable opinion' and similar discussions in the second half of the seventeenth century document a significant shift (or even a series of shifts) within the scholastic understanding of probability. In the wake of this shift, the concept of opinion was also critically reviewed.¹⁴ In particular, the assumption that an opinion was characterized by a perceived fear (*formido*) of error attracted criticism. Apparently, not everybody who had an opinion actually feared that it was wrong. One answer to this challenge consisted in regarding a potential for fear as being characteristic of an opinion. That is, a lack of subjective certainty with respect to propositions that became opinions could give rise to fears that they were wrong. Some authors even dropped any reference to fear and took opinions to simply be fallible propositions that were held to be true. It presently does not matter, however, how satisfactory such altered concepts of opinion were, because we are more concerned with analyses of the concept of probability than with analyses of opinion.

The greatest long-term impact on the shape of probabilism had definitions which integrated a reference to reasonable assent in the scholastic concept of probable opinion. Such definitions became widespread in eighteenth and nineteenth century Catholic moral theology. Here are two

¹³See Friedman and Halpern (1995); Halpern (2003); Shafer (1976).

¹⁴See Elizalde (1670), appendix, q. 6, n. 4; Terill (1678), q. 34; Casnedi (1711), d. 4, n. 6; Lacroix (1707), lib.1, tract. 1, cap. 2, dub. 2, q. 16.

examples from probabilist and an anti-probabilist writings from the early eighteenth century:

Rassler (1713) – a probabilist:¹⁵

“Yet moreover a probable opinion is to be understood as one buttressed by a motive of weight or great import, that is to say, which can incline and move even a reasonable man to irreprehensible assent.”

Gisbert (1703) – an anti-probabilist:¹⁶ “Probability correctly described is a view of the true below certainty and such that it suffices for reasonable assent.”

Neo-scholastics of the nineteenth and twentieth century often also based the notion of probability on reasonable assent:

Ballerini and Palmieri (1899):¹⁷

“A [probable] motive ought to be *weighty*, that is to say, it can determine the assent of a reasonable man and render a thing verisimilar.”

Zalba (1957):¹⁸

“This absolutely necessary true and solid probability of an opinion is a property of the opinative judgment which, due to the weighty motives it rests upon, is apt to obtain the assent of a reasonable man, and although accompanied by a fear of error, it is in no way satisfiable by a doubtfully or tenuously probable opinion.”

¹⁵Rassler (1713), disp. 3, q. 1, n. 2: “Porro autem per probabilem opinionem intelligitur illa, quae nititur motivo gravi, seu magni momenti, quod scilicet virum etiam prudentem inclinare, ac movere possit ad assensum irreprehensibilem”.

¹⁶Gisbert (1703: 3), praeambulum 1: “Probabilitas proprie dicta est species veri infra certitudinem talis ac tanta ut ad assensum prudentem sufficiat”.

¹⁷Ballerini and Palmieri (1899), Vol. 1, tract. 2, cap. 2, dub. 2, q. 2: “Motivum autem debet esse *grave*, quod scilicet ad assensum determinare queat prudentem virum et rem verisimilem efficere”.

¹⁸Zalba (1957), pars 1, tract. 4, cap. 3, art. 1, §2, n. 863: “Haec vera et solida probabilitas opinionis, quam absolute requirit, est proprietas iudicii opinativi quae, propter *gravia* motiva quibus fulcitur, apta est ad obtinendum assensum viri prudentis, etsi cum formidine de opposito, nullatenus contenta cum opinione dubie vel tenue probabili”.

The starting point of these developments were anti-probabilist attempts to tie probability to a possibility of reasonable assent. The first notable anti-probabilist, Andrea Bianchi, had already embarked on this line of argument. The idea was that a reasonable agent should be able to hold a premise for moral action to be true. This assumption stands in marked contrast to modern probabilistic decision theory, whose first stirrings ensued shortly after the publication of Bianchi's book. In expected-value decision theory, not probability but the product of probability and value guides action, and hence an acted-upon proposition (e.g. 'It will rain in the afternoon', with a probability of 0.4, prompting the carrying of an umbrella) need not be probable enough to justify the agent's assent. However, demand for assertability seems plausible in theological as well as in moral deontic contexts. In a deontic context, in which duties are to be observed or permissions granted, agents do not straightforwardly maximize expected value. What matters here is the probability with which a constraint or permission is valid. If agents follow a permission, they must determine whether they may legitimately hold for true that the permission is valid; if they consider whether they ought to comply with a constraint or duty, agents must determine whether they have to believe that it is binding. Holding something for true is therefore important in deontic contexts – a continuous source of tension between deontological ethics and the logic of expected value maximization.¹⁹

If we grant anti-probabilists this first step—as many probabilists did—epistemological conditions for reasonable assent become tremendously important. For anti-probabilists, these conditions immediately debunked probabilism because in their view, only the most probable of several alternative propositions could reasonably be held for true. Probabilists, such as Esparza, Fabri, and Terill, disagreed. They devised sophisticated forms of doxastic voluntarism to vindicate the reasonableness of doxastic (i.e. assent-producing) choices of less probable propositions. This line of approach will be discussed in Chapter 10, whereas we presently only need to understand that its promoters accepted reasonable assertability as a foundation of definitions of probability (Hence, Terill's above-quoted partial agreement with Fabri's definition of probability). Fabri called for reasonable foundations for probable opinions and specified that such foundations depended on the judgment of reasonable or prudent persons (*sapientes*) concerning the possibility of

¹⁹See Alexander (2008).

reasonable assent. Terill's criticism illuminates that he, like other defenders of this approach, recognized some of its unavoidable problems. What if the *sapientes* did not agree on whether a proposition could reasonably be held for true or not? A minimum number of advocates for the probability of a proposition was then required for reasonable assertability, and this brings us back to the above discussed question, whether a single competent supporter suffices to render a proposition probable (see Chapter 6). Terill argued in favor of three to four independent but concurring voices as a quorum for authority-based probability, and this should then also be his answer in the present case. Critics of the reasonable-assent approach, such as Miguel de Elizalde, emphasized its circularity. In order to determine the scope of reasonable assertability, one had to revert to the judgment of reasonable persons, yet the reasonableness of persons was in turn to be judged on the basis of the reasonableness of their assent to propositions. However, the premises of scholastic expertocracy helped mitigate this apparently vicious circle. Claude Lacroix discussed the problem of circularity and asserted that the 'wise' in question were experienced persons (*periti*), who were well disposed to understand a problem, all things considered.²⁰ That is, prudence was ascribed—as it had been since the Middle Ages—in accordance with an academic track record, documented experience, and skill in an area of expertise. Note that modern theologians often criticize this account of prudence or practical wisdom as unsatisfactory, and it is also not what Aristotle or Aquinas had in mind as regards these terms.²¹ These critics are certainly right, and premodern scholastics probably knew it, but without an independently operational standard for recognizing *sapientes*, the circle of prudence ascription could not be broken. The circle threatened to engender arbitrary, merely power-driven ascriptions of reasonableness, controlled by those who had the power to effectively ascribe reasonableness to themselves and others, who in turn backed those who ascribed reasonableness to them. The scholastic system of expertocracy, which was to a significant extent based on institutionalized tests (university degrees, peer-reviewed publications), helped mitigate such discursive power play. In practice, of course, many of the theoretical safeguards against mere power did not work, and then as now, power relations determined choices that ought to be taken alone for epistemic

²⁰Lacroix (1707), lib. 1, tract. 1, q. 18, n. 110: "Per prudentes hic intelligitur periti, apte dispositi ad intelligendum, omnibus consideratis".

²¹See, e.g., Pinckaers (1995), Chap. 11.

reasons. Nevertheless, the insight that experts should, in theory, be selected for their epistemic qualities, and the embodiment of this insight in norms of discursive conduct, remains an important achievement of the scholastic tradition. In practice, it seems natural to accept at least those propositions as reasonably assertable, which are considered as such by all or by almost all competent evaluators. This was the standard accepted by Fabri and Terill. Both authors further assumed that (moral) theologians were ‘expert’ wardens of the use of opinions, and thus paradigmatic competent evaluators, a traditional view that was, of course, anathema to the avant-garde of modern thought.

Based on the foregoing assumptions, Terill specified when a set of reasons is certainly probable:²²

“A certainly probable motive (*motivum certo probabile*)²³ is a motive that suffices without certainty to defend a thesis with common approval and to the satisfaction of the learned against very strong arguments, which can be brought forward by the weightiest authorities and the most expert persons in a field.”

This definition is akin to the modern understanding of a reasonably defensible justification. Probability is characterized by Terill as:²⁴

“A fallible apprehension so great that it is worthy of assent. He who absolutely assents to it deserves to be praised as reasonable and can in no way be blamed as temerarious and unreasonable.”

Unfortunately, none of the definitions of probability that were based on reasonable assent immediately tell us under which conditions assent could be reprehended as unreasonable. They only clarify that agreement on the reasonableness of a particular act of assent produced a proposition that could

²²Terill (1669), q. 2, ass. 2, n. 7: “Motivum certo probabile, est motivum quod citra certitudinem sufficit ad defendendam thesim aliquam cum communi approbatione, & satisfactione Doctorum, contra argumenta potissima, quae a gravissimis auctoribus, & rei maxime peritis asserti possunt”.

²³The first occurrence of ‘certain’ does not conflict here with its second occurrence for reasons that are explained in Section 6. ‘Certainly probable’ only means surely probable, but a probable opinion as such is not certain according to scholastic epistemology.

²⁴Terill (1669), q. 2, ass. 10: “Apprehensio fallibilis adeo magna, ut illa digna sit assensu, seu ut qui illa absolute assentitur ut prudens merito laudari, nullatenus tanquam temerarius et imprudens reprehendi possit”.

be used without fear of reproach. Yet the problem of how to deal with propositions whose reasonable assertability was controversial remained an open question. We will discuss this issue in Chapter 9.

In any case, definitions of probability that included reasonable assertability marked an important step in the development of probabilism and anti-probabilism, problems of application notwithstanding. First, they made explicit what may always have been implicit in scholastic regulations concerning the choice of probable propositions. It is easy to read the standard of reasonable assertability back into the medieval endoxical notion of probability. After all, an endoxon is a proposition that is approved by all, a multitude or the wise. It is therefore plausible to conceive it as reasonably assertable. The problem with this argument is that it does not work the other way round. A reasonably assertable proposition does not need to be one that is held true by all, a multitude, or the wise. At first glance, this rejoinder also undermines Fabri's or Terill's conception of probability; however, a significant difference exists. With respect to Aristotle's notion of *endoxon*, approval signifies actually holding a proposition for true. In the definitions from the second half of the seventeenth century, however, the reasonable assertability of a proposition was at issue, and not all reasonably assertable propositions had to actually be asserted by somebody. The significance of this point should not be underestimated, because a competent evaluator can regard propositions, which he considers to be wrong, as reasonably assertable by other persons, in particular by persons who today are called his epistemic peers (persons who are as informed and competent as the evaluator himself). For instance, Monica may be a Kantian, but may consider utilitarianism as reasonably assertable, because she has esteemed colleagues who are utilitarians and whom she considers very competent and reasonable. The sum total of propositions considered reasonably assertable thus form a pluralistic 'space of the reasonable', and the endoxic definition of probability does not adequately circumscribe this space, because it only refers to opinions actually held, and fails to differentiate between opinions that 'wise' persons consider false and those that they consider to not be reasonably assertable.

Explicit reference to reasonable assertability therefore contributes to scholastic definitions of probable opinion, even though it may be safely surmised that for medieval scholastics, the classification of being a probable opinion already implied the *prima facie* possibility of reasonable assent. Moreover, tensions between scholastic probability and reasonable

assertability arose because a less probable opinion was clearly not straightforwardly assertable as true. The simple requirement for supportive reasons to be ‘of some weight’ and a lack of convincing counter-reasons did thus not suffice to guarantee reasonable assertability. Reasonable observers might agree that the reasons for a proposition possess ‘some weight’, but not enough to move reasonable observers to assent to it. The latter might withhold assent for the time being and ask for further information, while not so reasonable ‘temerarious’ observers would jump to a conclusion, driven by the weight of available reasons. This explains why probabilists, who accepted reasonable assent as a key component of definitions of probability, often emphatically opposed the permissive morality (aka laxism) of other probabilists, and considered themselves moderates. Tirso Gonzalez’s treatment of his opponents documents this attitude. Gonzalez spoke with respect of Esparza or Terill, while bashing those he considered outright laxists.²⁵

On the whole, the rise of reasonable assertability as a condition of probability in the mid-seventeenth century turned scholastic pluralism for the first time explicitly into a pluralism of reasonably assertable opinions. The variety of probable opinions that medieval scholastics had already addressed was now explicitly flagged as a consequence of reasonable disagreement. A definition by Pietro Sforza Pallavicino literally linked both-sided probability to disagreement between reasonable persons (*discordes in ea re sententias etiam inter viros prudentes*):²⁶

“An opinion is called both ways probable, as we explained in disp. 8, q. 6, art. 4, if the reasons which appear to speak for each side are such that one recognizes that the judgments even of reasonable men in this matter will be in discord because of the diversity of human intellects or if in fact one definitely experiences such discord between them.”

With such formulations, it became unmistakable that every competent reasoner was *prima facie* entitled to hold any reasonably assertable opinion, and that the possibility of reasonable disagreement was the basis of a pluralism

²⁵Gonzalez (1694), diss. 1, n. 15, 36; diss. 3, cap. 1, n. 6.

²⁶Sforza Pallavicino (1653), disp. 9, q. 4. a. 4, n. 1: “Opinio utrimque probabilis dicitur, ut explicamus disp. 8, q. 6, art. 4 quando apparent rationes tales pro utraque parte, ut quis cognoscat, pro varietatum humanorum intellectuum fore discordes in ea re sententias etiam inter viros prudentes, vel certe experitur reipsa talem discordiam inter eos intercedere”.

of reasonable opinions. It was in early modern scholasticism that these insights were apparently first developed in detail, and not in the writings of the anti-scholastic philosophical avant-garde. Of course, both schools of thought differed widely in their views about what made a person a competent reasoner, but that should not distract us from the scholastic achievements.

2. *Kinds of Probability*

The takeoff of the probabilism debate in the mid-seventeenth century not only generated new definitions of probability, but also led to a systematization of kinds of probability. One of the most important distinctions in this respect has already been discussed above (Chapter 4), namely that between (directly) reasons-based, intrinsic probability and authority-based, extrinsic probability. Now, the main distinctions were increasingly brought together under the heading “How many kinds of probability are there?” (*quotuplex probabilitas* or *quotuplex opinio probabilis*). Terminology was apparently not unified so that a great variety of distinctions existed, of which some were co-extensive. We will only discuss some major distinctions, which are frequently encountered and appear to be of interest for the history of probability.²⁷

2.1 *Speculative and practical probability*

The speculative/practical distinction is central to the theological regulation of the use of opinions, but unfortunately, it was conceived in divergent ways by different authors, making it difficult to summarize. The first problem is that this distinction did not only pertain to probability, but to other epistemic categories, such as doubt or certainty, as well. The speculative perspective in scholastic thought is generally characterized by its focus on truth – its aim is to gain an insight, and probability, doubt, or certainty qualify this insight. The probability of the proposition ‘It will rain tomorrow’ is hence a speculative probability. (The use of ‘speculative’ in scholastic terminology relates to the

²⁷The overlap and differences between the concepts of probability and verisimilitude will not be discussed here. Brief references are given in Chapter 9, Section 3.

modern use of ‘theoretical’, and has nothing to do with speculation in the sense of a wild guess).

The most important use of the speculative/practical distinction in the present context was the contrast between speculative probability and practical (or moral) certainty. Moral theology demanded that agents be certain of the morality of their conduct (in terms of their conscience), but had to gain this certainty (*certitudo moralis*) under conditions of epistemic uncertainty. The solution to this problem was to grant a practical certainty of conscience if an agent followed the right rules of conduct under uncertainty. The agent could thereby at the same time be speculatively uncertain (e.g. holding a fact to be only probably true) and practically certain concerning the moral legitimacy of action *a*.

The distinction between speculative and practical probability was notoriously variegated. In an overview of the issue, the scholastic author Claude Lacroix bemoaned that different authors explained this distinction differently (*varii varie explicant*).²⁸ According to his account, the distinction could—to mention just a few options—signify:

- the probability of a proposition without reference to human action vs. the probability of a sentence about human action.
- the probability of a general proposition vs. the probability of a proposition, all circumstances considered.
- the probability of a proposition without reference to a particular person *P*'s action in a given context vs. the probability of a proposition about a particular person *P*'s action in a given context.

The unifying rationale behind these diverse understandings of speculative and practical probability was an attempt to distinguish the legitimacy of an agent's action in a specific case under specific circumstances from the rightness of more generic judgments, moral or otherwise, on which the legitimacy of the concrete action somehow depended. This is not one of the main issues that concern us in the present investigation, and a short comment therefore should suffice.

Some probabilists claimed that whatever is speculatively probable is also practically so. They assumed that probabilism vindicated the choice of speculatively probable propositions as premises of action, thus rendering them

²⁸Lacroix (1707), lib. 1, tract. 1, cap. 2, §2, n. 115.

practically probable, because practical probability signified that an existing speculative probability sufficed to permit the practical adoption of a proposition. However, it was not always the case that speculative probability engendered practical probability. A medical doctor, for instance, might ponder whether to use untested and potentially noxious medication to help a patient but also to learn something about a drug. Let us assume that the doctor conscientiously weighs all the moral pros and cons of his planned action and arrives at the judgment that using the drug was probably morally right. The planned treatment would thus be speculatively probable (according to an account in which ‘speculative’ can pertain to moral actions). Now, a second round of moral reflection begins. Many moral theologians assumed that a merely probable permission in medical cases did not suffice to legitimize risky medication.²⁹ In cases that implied significant risks for the life and health of a patient, the most probable or safest option had to be chosen. Hence, despite being speculatively probable, permission to administer untested and potentially noxious medication could be practically improbable. The category of practical probability (or improbability) here represents a final, all-things-considered judgement, which accounts for rules of coping with uncertainty (including probability) and expert disagreement, whereas speculative probability is the result of a prior stage of consideration to which these rules are applied.

Conversely, a proposition could also be practically probable and speculatively not probable. Take the example of a soldier at a canon, who receives an order to shell a house. Based on extensive reconnaissance, the soldier considers it probable that women and children (non-combatants), but no enemy combatants are hiding in the house. He therefore regards it as probably morally illicit to shell the house. For him the moral legitimacy of shelling the house would then not be speculatively probable. Yet the soldier also knows that he must obey orders, unless the ordered act is evidently morally illicit (a mainstream view in scholastic ethics of warfare, that is, *ius in bello*).³⁰ Given his uncertainty concerning the presence of non-combatants (and absence of combatants) in the house, the soldier realizes that it is not evidently wrong to shell the house, as the case would be if the presence of non-combatants were practically certain. Hence, he has to follow the orders, which renders it practically probable that shelling the house is morally licit for

²⁹On the application of probabilism in medical contexts, see Schwartz (2014).

³⁰See Russell (1977); Schuessler (2000); Schwartz (2019), Chap. 6.

the soldier. In other words, he does not commit a sin if he obeys orders under the given conditions, although it is not speculatively probable that the respective act is morally right.

(*Nota bene*: Enlightenment philosophers often regarded such intricate scholastic analyses of multi-level moral decision making as over-differentiated nonsense. Yet the scholastic analysis corresponds, for instance, to NATO rules of ethical warfare. Soldiers are still told to obey orders unless these manifestly violate human rights.³¹ A merely likely violation of human rights is not accepted as a sufficient reason to disobey. Insofar, the complexity of the scholastic moral analysis reflects the reality of moral decision making. Simplifications that arose in the Enlightenment era, such as the norm that orders must be obeyed come what may, are rejected today with good reason after the experiences with totalitarian warfare in the twentieth century.)

2.2 Probability in itself (*quoad se*) and for us (*quoad nos*); subjective and objective probability

The distinction between subjective and objective probability is fundamental for modern interpretations of probability. As a degree of belief, subjective probability is the hallmark of modern decision theory, in particular in its Bayesian variety.³² On the other hand, modern physics tells us that nature, above all at the quantum level, is indeterministic and probabilistic. That is, probability is an objective feature of the world. Historians of probability have traced the insight that probability can be regarded from a subjective and from an objective perspective back to Pierre-Simon Laplace, but, as Sven Knebel has pointed out, by doing this, they once more ignored scholastic precedent.³³

A distinction between subjective and objective probability (*probabilitas subjectiva* or *objectiva*) became prominent in the debate on probabilism in the second half of the seventeenth century. It is related to a distinction between subjective and objective certainty, whose roots in scholastic thought have, to the best of my knowledge, never been investigated in depth. Francisco Suárez distinguished a certainty from the vantage point of a thing (*ex medio*) and from

³¹Keijzer (1978).

³²See Halpern (2003).

³³See Knebel (2000: 98). For Laplace, see Daston (1988: 191).

the vantage point of the subject (*ex parte subjecti*).³⁴ In slightly different terminology, the roots of this distinction reach back to the Middle Ages. In the late fourteenth century, Pierre de Ailly, for instance, distinguished certainty on the part of the recognized thing (*ex parte rei cognitae*) and on the part of the observer (*ex parte cognoscentis*).³⁵ Even earlier, in the fourteenth century, Durandus of St. Pourçain had become famous for his analysis of a believer's 'certainty of adherence' (*certitudo adhaesionis*), which was an expression of high subjective confidence.³⁶ However, we will not continue to dig up roots but focus on the relevant period, in which the subjective/objective distinction gained a place in overviews on types of probability. In the late seventeenth century, the subjective/objective distinction is often listed alongside a distinction between probability in itself (*probabilitas quoad se* or *in se*) and probability for us (*probabilitas quoad nos* or *respective operantis*). Unfortunately, different authors again understood these distinctions differently, so that it is difficult and a matter of interpretation how to best summarize them.

A seminal characterization of subjective and objective causes of probability (not straightforwardly referred to as subjective or objective probability) apparently originated from Antonio Pérez (1599–1649), one of the great professors at the Collegio Romano and the teacher of several prominent probabilists and anti-probabilists. According to Pérez, there were two types of causes of probability, objective and subjective ones. He called a cause of probability objective if it was based on the frequent connection of things, independent of the dispositions of an observer (*opinans*). A subjective cause of probability for Pérez was based on the frequent connection of an observer's doxastic (i.e., belief-related) dispositions with the truth of propositions.³⁷ This is not the modern notion of subjective probability as a degree of belief, but it shows that a subjective or observer-related concept of probability already existed in scholastic probability discourse. For this reason,

³⁴Suárez (1856), vol. 4, disp. 12, sec. 3, n. 4: "Duplex enim distingui solet [certitudo]: una ex medio & proportionata motivo iudicandi, altera ex parte subjecti".

³⁵Ailly (1513), In 1 Sent, fol. 47d. See also Gandillac (1933).

³⁶Durandus (1567), lib. 3, d. 23, q. 7, n. 7.

³⁷Pérez (1668), tract. 1, disp. 4, cap. 2, n. 24: "Duplex est cause probabilitatis: alia est obiectiva: alia est subiectiva: obiectiva est frequentia connexionis alicuius rei cum alia, independens a dispositione opinantis ... Subiectiva causa est frequentia connexionis dispositionis opinantis cum veritate conclusionis, aut opinionis". Antonio Pérez SJ, the Jesuit, to which I refer here is not to be confounded with Antonio Pérez OSB (1559-1637), the Benedictine, author of the famous confessor's handbook *Laurea Salmantina*.

the subjective/objective distinction with respect to probability has scholastic roots.

Pérez's understanding of subjective and objective causes of probability was adopted by Anthony Terill with almost no alterations, but was *not* included in his discussion of types or divisions of probable opinions. Terill neatly distinguished probable opinions and the causes of probability (or appearance thereof).³⁸ Following Pérez, he conceived the causes of (apparent) probability in a frequentist manner, claiming that the objective cause of probability is the frequent connection of a subject and a predicate (i.e., the frequent being the case that S is P) independently of the dispositions of an observer. The subjective cause of probability is the frequent connection between the dispositions of an observer and the truth of the asserted matter (i.e., the cause of the probability of an opinion in the subject).³⁹ However, Terill did not define the notion of probable opinion on the basis of frequencies. The point is that the causes of probability always produce the appearance of probability relative to some intellect, and there are many intellects to be accounted for. This becomes clear in Terill's distinction between a probability of opinions in itself (*quoad se*) and for us (*quoad nos*). An opinion was probable *quoad se* if it was considered probable by *some* competent human intellect on the basis of probable reasons, regardless whether it appears probable to a given observer ('us'). A probable opinion 'for us', by contrast, is one whose probability sufficiently makes sense to a given observer.⁴⁰ This is a complex and hedged characterization, which basically pitted an observer's probability assessment against the assumed assessment of representative reasonable observers. Terill insists that at least one such representative observer must actually exist. It is not clear why the possible existence of a representative observer should not suffice, but for the rest, the difference between a given observer's and a representative reasonable observer's perspective is clear.

³⁸I take it that Terill speaks about the appearance of probability because in each single instance a proposition is true or false, not probable (Terill 1669, q.4., ass.1, n. 13). Probability is thus not a basic veridical property of propositions but relative to an intellect (*omnem probabilitatem esse denominationem relativam ad intellectum*). In this sense, it is merely apparent.

³⁹Terill (1669), q. 3, ass. 1, n. 2: "Causa objectiva probabilitatis est connexio, seu frequentia connexionis subjecti cum praedicato penitus independens a dispositione opinantis;" n. 3: "Causa subjectiva probabilitatis est connexio, seu frequentia connexionis inter dispositionem opinantis, & veritatem rei assertae".

⁴⁰Terill (1669), q. 4, ass.1, n. 13: "Illam voco probabilem quoad se, quae omnibus spectatis, quae circa rem illam communiter considerantur a peritis, nititur fundamento vere probabilis & alicui intellectui humano apparet talis; sive hoc motivum nobis innotescat, sive non innotescat sufficienter. Similiter illam opinionem voco probabilem quoad nos, cujus probabilitas nobis sufficienter innotescit".

In fact, Terill's cautious hedging was dropped by some of his successors. In the simplified account of Claude Lacroix, probability *quoad se* referred to probability as it arose on the part of things (*a parte rei*), whether we recognize it or not. 'For us' (*quoad nos*) signifies probability we inculpably assume to be based on weighty reasons, even if it was not. Note the twist Lacroix's definition receives through the predicate 'inculpable'. An error in judging *quoad-nos* probability needs to be inculpable (*invincibilis*), that is, it must not result from a blameworthy or sinful fault of the observer. Lacroix's *quoad se/quoad nos* distinction thus contrasts an objective probability with the subjective probability of a best-of-class observer.

A look at another author leads to further complications. The notable German probabilist Christoph Rassler (1654–1723) listed both the in itself/for us and the subjective/objective distinction among the types of probability (the first he called *in se/respective*).⁴¹ Probability *in se* signified probability according to common estimation for Rassler, and thus denotes roughly what Terill had called probability *quoad se*. Probability *respective*, or with respect to a given intellect or agent, is Terill's probability *quoad nos*. Rassler's subjective/objective distinction is guided by another perspective. Probability is subjective (Latin: *subjective probabilis*) if a proposition is perceived as probable in one's own intellect, that is, as probable on one's own account. It is objective (Latin: *objective probabilis*) if the opinion is treated as an object whose *in se* (i.e. commonly assumed) probability is known to the observer. This does not imply that the observer shares the common view. Rassler apparently wanted to advert to a subtle point. Subjective probability implies reasonable assertability by one's own standards, objective probability reflects a belief about assertion by other reasonable observers. By contrast, Rassler's *in se/respective* distinction lacks any reference to a reasoner's awareness or endorsement of other persons' views.

To sum up: most distinctions that occurred in the advanced discourse on probability in late seventeenth-century scholasticism were not standardized. Usually, authors modified them to convey subtle differences between their views. There was thus no uniform distinction between probability in itself/for us or between subjective/objective probability. Instead, a nuanced and variegated usage of such distinctions meandered between the options of ascribing probability to the way things are (*a parte rei* – Lacroix), to a representative or common judgment (Terill, Rassler), and to an

⁴¹Rassler (1713), disp. 3, q. 1, n. 9 and 10.

observer's view. This discursive field documents that the conceptual background of what became modern subjective and objective probability was already investigated in some depth in the scholastic debate on probability.

2.3 Probability and probabilism: direct or indirect / reflexive

The distinction between direct and reflexive probability is of interest here, not least because it gave rise to a distinction between forms of probabilism. From the late seventeenth to the nineteenth century, one finds references to direct and reflexive versions of probabilism, with the former being more distant from an overly permissive morality (laxism) than the latter. Anthony Terill called probability direct (*probabilitas directa*) if it resulted from aspects of an object or a state of affairs itself.⁴² He offered the example of an artist painting on a Church holiday. It was probable that such an activity was licit because it was not an ordinary service task, which would have been prohibited on Church holidays. The probability in question is direct because it arises from consideration of the moral features of an activity itself. By contrast, an indirect or reflexive probability (*probabilitas indirecta* or *reflexa*) results from reflection on direct probability, or from reasons that depend on rules concerning an action rather than on the action itself. For instance, the observation that no law explicitly prohibited artistic painting on Church holidays may count as an indirect indication that such activities were probably licit.⁴³

Direct probability could be turned into a stopgap against laxism by requiring an agent to only follow less probable opinions which he or she considered to be directly probable. That is, the opinions in question had to be intrinsically probable according to an agent's own view. The agent was not permitted to follow an opinion, which authoritative others, but not the agent, acknowledged as probable. By contrast, the permissibility of relying on the judgment of others with respect to probability or on their probable opinions,

⁴²Terill (1669), q. 4, ass. 4, n. 27.

⁴³Gisbert (1703: 7), pars 1, offers a different characterization of direct and indirect probability, calling probability indirect if it co-depends on the agent's or an observer's state of mind (*statum quem habet in mente opinantis*). Gisbert also uses the example of painting on a holiday. The permissibility of painting on a holiday is indirectly probable for him if it is necessary for the painter to sustain himself (*pictor opus habet pingere ad vitam sustinendam*). I do not see why this should express a state of mind, and Gisbert's approach again documents the difficulties the lack of a shared definition could engender in the debate on probable opinions.

even though the agent did not regard the opinions as probable, was the hallmark of reflexive probabilism. Anthony Terill, for instance, accepted that agents followed the opinions of others, whom they had reason to regard as competent, even if the followers were unable to identify the respective opinions as probable. Terill was consequently attacked as a *reflexista* by anti-probabilists.⁴⁴

The apparently most problematic point in the discussion on direct or reflexive probabilism pertained to following an opinion of others, which the agent on the whole considered to be improbable. It is, of course, inconsistent to regard an opinion as all things considered probable because of the authority of others and at the same time to believe that it is all things considered improbable. In this case, one's own opinion needs to at least be suspended if the agent considers the respective others to be better judges of probability. However, reflexive probabilists could comply with this requirement without much ado and prohibit the choice of an opinion the agent regarded as all things considered improbable. An agent had to then consider a chosen opinion to be at least indirectly probable, that is, probable because of its endorsement by competent others.⁴⁵

3. Key assumptions of anti-probabilism

Opposition against probabilism and against permissive casuistry began in earnest in the 1640s (see Chapter 3). The first closely argued and theoretically incisive criticism of probabilism was Andrea Bianchi's *De opinionum praxi* (1645). The 1650s saw a proliferation of attacks on probabilism, instigated most notably by the decision of the Dominican Order to stop its members from further using probabilism, and by Blaise Pascal's effective ridiculing of this doctrine in the *Lettres Provinciales* (both in 1656). Dominican moral theologians soon wrote a barrage of scholarly works against probabilism, starting with Giulio Mercori's *Basis moralis theologiae* (1658). Shortly after his election in 1655, Pope Alexander VII encouraged opposition against probabilism by commissioning the canon lawyer Prospero Fagnani to write

⁴⁴For a pejorative labelling of Terill as *reflexista*, see Camargo (1702), pars 1, lib. 1, contr. 7, art. 4, n. 6, and Döllinger and Reusch (1889: 50).

⁴⁵See, for instance, Lacroix (1707), lib. 1, tract. 1, art. 2, dub. 2, q. 49, §2: "Neque tum licet, si opinionem illam iudicet esse ita falsam, ut non censeat esse vere & certo probabilem".

an anti-probabilistic analysis of the workings of conscience, which appeared in the first volume of a magisterial work on canon law (1661). Thereafter, the acrimonious debate on probabilism was in full swing.

Although probabilism was attacked from very diverse angles, these are subsumed here under the heading of anti-probabilism for ease of reference. Anti-probabilism is an umbrella term that emerged at the end of the seventeenth century, and it is therefore not anachronistic to use it in the present context. Moreover, the label ‘anti-probabilist’ usually referred to a scholarly author, most often a Catholic moral theologian, a focus which will be retained. Chapter 3 indicated that a vast array of theological, historical, moral, and epistemological arguments was directed against probabilism because scholastic anti-probabilists tended to attack probabilism on all fronts simultaneously. We can here only deal with a small selection of anti-probabilist theses and arguments, placing the focus on epistemological issues. It should nevertheless be clear that the subject matter does not allow for a neat separation of moral and epistemological issues, and theology needs to also occasionally be addressed. Hence, some interdependencies must be acknowledged, but for the rest, a decision to concentrate on a few discussion points in a seemingly shoreless debate was necessary.

A few basic epistemological claims were shared by all or at least most anti-probabilists. Most of them have already been broached in this investigation, but for ease of reference in the following discussion, it seems helpful to condense them into handy propositions. Let us begin with probabiliorism, the approach most anti-probabilists would call their own:⁴⁶

(Probabiliorism) It is only permissible to follow the most probable or the safest proposition from a set of incompatible probable propositions.

As a doctrine of moral theology, probabiliorism was first formulated under that name around 1700. My formulation is maximally simplified and co-extensive with the crisp, nineteenth-century version of Jean-Pierre Gury (1801–1866).⁴⁷ Alternatively, anti-probabilists could also be strict tutorists.

⁴⁶Note that in its basic formulation, probabiliorism is identical to medieval tutorism. The latter’s references to the choice of the safer side in case of doubt are implicit in probabiliorism, because equally balanced doubt excludes a notable asymmetry of probability.

⁴⁷Gury (1857), tract. 2, cap. 4, art. 1, n. 53, ad 3: “Probabiliorismus, juxta quem semper tenenda est opinio legi favens, nisi opposita sit notabiliter probabilior”. The law-favoring opinion is always the safer, and I have dropped Gury’s requirement of notably greater probability by simply using greater probability instead. It should be noted, however, that several eighteenth-century

Tutorism calls for the choice of the safest side in all cases, in which no side is true with at least practical certainty. Since probability was no guide for action for tutorists, they were commonly regarded as over-anxious extremists, and their number remained minor. In any case, epistemological problems were not very relevant for tutorism because safety was not an epistemological category for moral theologians, but represented a lack of sin potential. The following assumptions are therefore mainly honed for probabiliorism, but it is safe to say that tutorists typically accepted them as well.

Seventeenth-century anti-probabilists generally assumed that only the more probable of two incompatible probable propositions could be assented to:

(Greater Probability Claim: GPC) Assent can only be given to the most probable proposition from a set of logically incompatible propositions.

(GPC, equi-probability corollary) It is impossible to assent to one of two incompatible equally probable propositions.

Note that this does not imply that assent must be given to any of the opinions in question. The claim is only that if assent is given, it must be accorded to the most probable opinion (suspension of assent was also a possibility). In this respect, a psychological and a moral/epistemological version of the GPC can be distinguished.

(Psychological GPC): It is impossible for the intellect to give assent to a proposition other than the uniquely most probable one in a set of incompatible opinions.

(Moral/Epistemological GPC): It is unreasonable and illicit to give assent to a proposition other than the uniquely most probable one in a set of incompatible opinions.

probabiliorists demanded a notable difference of probability when legitimizing the choice of the more probable side. Since 'notably greater' acquired a specific role in the debate on equi-probabilism, which we cannot discuss here in detail, it appeared best to resort to the simpler description. For early formulations of probabiliorism using that name, see Mamiano della Rovere (1708), pars 1, n. 346; Rassler (1713), praefatio.

Most anti-probabilists endorsed both versions of GPC, but all at least accepted the moral/epistemological version, which often referred to prudence, an intellectual virtue, or conversely, to imprudence, an intellectual vice. Since prudent action was required in moral matters, as generally acknowledged by scholastics, this amounted to a normative argument on a moral-cum-epistemological basis. Anti-probabilists further claimed that GPC, and in particular, its moral/epistemological version, had already unanimously been endorsed by medieval scholastics. (Of course, probabilists did not concur, but I think that anti-probabilists were right in this respect). The difference was only that their seventeenth-century successors explicitly used GPC to curb probabilism, the latter being a doctrine that had not existed in the Middle Ages. However, GPC only becomes a weapon against probabilism when another assumption is added:

(Assertability Condition) Only reasonably assertable propositions are probable.

The Assertability Condition was enshrined in various definitions of probability after 1640 and, as outlined above, accepted by many anti-probabilists and probabilists alike. Earlier definitions of probability lack explicit reference to reasonable assertability, and it is therefore disputable whether medieval scholastics had already subscribed to the Assertability Condition. In any case, the GPC and the Assertability Condition together undercut the old scholastic assumption of *both-sided probability*—that is, the simultaneous probability of a proposition and its negation—which probabilism relies on. (Remember that probabilists who endorsed the Assertability Condition rejected GPC). Since GPC postulates that only the more probable of two propositions p and non- p can reasonably be assented to, and probability requires reasonable assertability, one of the two propositions cannot be probable. As a consequence of this argument, some anti-probabilists adopted a frequency view of probability on the basis of Aristotle's idea that what happens most of the time is probable. This frequentist notion of probability, which only became a key notion for (moral) theology in the seventeenth century, precludes both-sided probability. Only p or not- p , but not both, can occur most of the time (or be almost always true).

Some anti-probabilists, with Tirso Gonzalez at their head (see below Section 3.3), assumed moreover:

(*Assent Condition*) If an opinion *o* is to be followed in moral matters, assent must be given to *o*.

That is, agents who want to follow a moral guideline must hold this guideline for true. This requirement of compatibility between moral conviction and action was usually rejected by probabilists and not endorsed by all anti-probabilists. Its problems become apparent in the choice of a safer but less probable proposition, which, as outlined, was possible for anti-probabilists. In this case, GPC excludes assent to the chosen proposition, and thus the Assent Condition needs to be dropped. This gives rise to a critical question. If the choice of a safer but less probable proposition is acceptable despite its incompatibility with the Assent Condition, why not allow the choice of less probable propositions more generally (for instance, in contexts in which they have better consequences than other propositions)? In some such cases, it might be acceptable if an agent follows a moral opinion which is not his own. However, such a final ‘reflex’ judgment was not acceptable to important anti-probabilists.

So much about certain stylized anti-probabilist assumptions. We will now take a look at how the respective assumptions were expressed and embedded in the writings of famous anti-probabilists.

3.1 *Bianchi, Mercori, Fagnani (and some non-scholastics)*

Andrea Bianchi’s (1587–1657) *De opinionum praxi* (1645) already focused on epistemological considerations that became seminal for the further development of anti-probabilism. He insisted (in the discussion of his first question) that moral certainty was required for a judgment of conscience, a claim to which most probabilists subscribed. However, anti-probabilists, following Bianchi, usually argued that the required certainty could not be achieved on the basis of less probable opinions. He then engaged in a substantial attack on doxastic voluntarism, which he considered a prerequisite of probabilism (q. 2–3). By contrast, he did not reject probable reasoning as such in moral matters (q. 4). After this introduction, Bianchi tackled the core question of the probabilism debate: whether it was licit to follow a less

probable opinion against a more probable one (q. 5). He noted that many contemporary theologians held this view, although no ancient or medieval theologian had actually endorsed it. On the whole, Bianchi critically discussed ten alleged arguments for probabilism, only to oppose them with his own arguments and with the authority of Aristotle, Augustine, and many others. The basis for Bianchi's opposition is a denial of doxastic voluntarism and the claim that we inevitably follow the weightier reasons when forming an opinion. In this respect, Aristotle's claim that it is not up to us to adopt an opinion plays a pivotal role, because only if it were up to us could we licitly follow a less probable opinion.⁴⁸ Here we find the above mentioned combination of GPC and the Assent Condition.

Bianchi also claimed that only an agent who followed the dictate of reason (*dictamen rationis*) could act licitly. An agent who did not follow the dictate of reason (as conditioned by the balance of truth-directed reasons) could therefore not do the right thing. Those who followed the lesser probability did not follow the dictate of reason and, therefore, sinned.⁴⁹ In good scholastic manner, Bianchi further strengthened his argument with twenty rebuttals of probabilism.

Like many of his colleagues, Bianchi separated the problem of licitly choosing one of two equally probable opinions (q. 6) from the treatment of lesser probability. According to Bianchi, equal probability on both sides necessitated doubt. Equally balanced doubt precluded reasonable assent and invoked the principle that the safer side must be preferred (q. 7). Bianchi's final question (q. 8) dealt with the authority of a single scholar who opposes a vast majority of others.

Giulio Mercori (d. 1669) shared much of Bianchi's sketched outline, although he was a Dominican and the latter a Jesuit. His *Basis theologiae moralis* (1658) is divided into three parts. The first pertains to probability as such and whether probable reasoning can offer guidance in moral problems. The second part discusses whether it is licit to follow a less probable opinion against a more probable one. The third focuses on applications. Like Bianchi,

⁴⁸Bianchi (1645: 52), q. 5: "Opinari in nobis non est ... sed si licite possemus sequi partem minus probabilem, esset nobis liberum opinari; ergo non possumus licite sequi minus probabilem". The first part of the sentence is a quote from Aristotle (1984), *De anima*, 427b20. Aristotle's claim that it is not up to us to opine is quoted by very diverse authors who endorse GPC, see, e.g., also the Protestant casuist Jeremy Taylor (1851: tom. 1, 185).

⁴⁹Bianchi (1645: 54), q. 5: "Probatur quarto, sic ille non licite agit, qui non sequitur dictamen rationis, ser qui sequitur minus probabilem, non sequitur dictamen rationis, ergo etc... non sequitur dictamen rationis, qui non sequitur inclinationem rationis, seu intellectus ad assensum".

Mercori begins by emphasizing the need for certainty of conscience (i.e. a certainty of acting licitly) and that this could be achieved with the help of correct probable reasoning. Part two sets out with a long critique of doxastic voluntarism (art. 1–7). On this basis, the question of probabilism’s sinfulness, which Mercori calls ‘the principal question of this disputation’, is addressed (art. 8). According to Mercori, following a less probable opinion should engender too much fear of error to reach moral certainty in conscience. In this context, the Assertability Condition is introduced and buttressed by the assertion that the intellect is unable to believe or ‘opine’ (*opinari*) a less probable proposition in the face of a more probable contrary one.⁵⁰ This fundamental assumption, together with the conviction that moral action requires a specific judgment of the action’s licitness, renders probabilism obsolete in Mercori’s eyes. He uses the example of a man who considered accepting multiple benefices. (A benefice was a source of clerical income. Almost all higher clerics had several benefices. The sum total of a seventeenth-century cardinal’s benefices might today equal a major hedge fund manager’s income.)⁵¹ Mercori assumed it to be less probable than the opposite that a prelate might, with good conscience, hold a plurality of benefices. Given this premise, the prelate could not form the distinct judgment that he could hold multiple benefices with a good conscience. Since such a distinct judgment was required for right moral action, accepting multiple benefices was immoral.⁵² The anti-laxist impetus of this case is obvious. Probabilism allowed the clerical hierarchy to earn huge incomes, a fact that must have fostered support for probabilism among the rich and powerful prelates. However, the case of multiple benefices is not as clear-cut as it seems, because it is not known whether anti-probabilists in the higher echelons of the Catholic Church systematically refused multiple benefices. Nevertheless, the case shows how Mercori applied anti-probabilist moral-cum-epistemological principles.

Another important early treatise against probabilism was written by the canon lawyer Prospero Fagnani (1588–1678). In the first volume of his *Commentaria in quinque libros decretalium* (1661), he dealt with the permissibility of probable reasoning in moral matters (n. 44–n. 121). He then proceeded to the question whether we are free to choose between equally probable opinions

⁵⁰Mercori (1658: 95), pars 2, art. 8: “non potest intellectus opinari de sententia minus probabili in concursu probabilius”.

⁵¹See Reinhardt (1984, 2011).

⁵²On the Council of Trent’s prohibition of an accumulation of benefices, see, e.g. Mullet (1999: 47).

(n. 121–n. 253). Only thereafter is the main question addressed whether a less probable opinion may licitly be followed (n. 253–n. 403). The treatise concludes with a discussion of probabilism’s claims concerning the authority of a single scholar (n. 403–n. 449).

Fagnani’s epistemological principles are the same as those of his anti-probabilist predecessors. He denied that we are free to adopt an opinion (*intellectus non habet libertatem opinandi*).⁵³ Note that this denial of freedom of opinion is a denial of doxastic voluntarism, not a denial of freedom of speech, although Fagnani would also have curtailed the latter. Opposition to doxastic voluntarism, or at least its more direct forms, which postulate the possibility of a direct decision between holding true and holding false, is again justified with Aristotle’s famous dictum that ‘opining’ (*opinari*) is not up to us. If the reasons for both sides have equal weight, the intellect, realizing that the balance of reasons is in equilibrium, hangs indifferent between both sides.⁵⁴

With respect to lesser probability, Fagnani emphasized that the intellect had to follow its own specific good, which is truth.⁵⁵ In contrast to Bianchi and Mercori, however, he explicitly maintained that any opinion that stood in conflict with a more probable one could not be probable.⁵⁶ I have argued above that a rejection of both-sided probability follows from the concepts of probability that most anti-probabilists endorsed together with the GPC. Yet it is a significant step in itself to render this conflict explicit, as Fagnani did, and to openly deny the possibility of both-sided probability.

Our short journey through the anti-probabilist treatises of Bianchi, Mercori, and Fagnani revealed much common ground. The main thrusts and themes of early scholarly writings against probabilism were quite similar. Doxastic voluntarism is discussed and rejected, and the authority of Aristotle is invoked to debunk probabilism. In fact, Aristotle’s respective role is of considerable historical interest, because it does not mark a case of well-entrenched orthodoxy fighting against the more mobile forces of innovation. Probabilism had largely been victorious in Catholic moral theology in the first half of the seventeenth century, and Aristotle was therefore invoked against an incumbent doctrine. Anti-probabilists assumed that the mainstream of scholastic moral theology had abandoned fundamental tenets of Aristotelian

⁵³Fagnani (1765), n. 143.

⁵⁴Fagnani (1765), n. 139: “cum rationes utrimque sint aequalis ponderis, intellectus, instar staterae habentis ab utraque parte pondera aequalia, stat in pendentem”.

⁵⁵Fagnani (1765), n. 394.

⁵⁶Fagnani (1765), n. 284: “Opinio in concursu probabilioris non est probabilis”.

epistemology and psychology. They attempted an Aristotelian *reconquista* rather than a defense of an entrenched position.

Ironically, the anti-Aristotelian avant-garde of early modern philosophy largely shared the epistemological concerns of scholastic anti-probabilism. Specifically, opposition to strong forms of doxastic voluntarism (which rendered assent to less probable propositions possible) and recognition of the guiding role of greater probability were widely shared by Catholic anti-probabilists, the philosophical avant-garde, and Protestant moral theologians. Here are a few examples:

“[I]t is a very certain truth that when it is not in our power to determine which the truest opinions are, we should follow those which are most likely to be true”.

Descartes, *Discours de la méthode*⁵⁷

“[A] man can no more avoid assenting, or taking it to be true, where he perceives the greater probability, than he can avoid knowing it to be true, where he perceives the agreement or disagreement of any two ideas.”

Locke, *Essay Concerning Human Understanding*⁵⁸

“For since everybody ought to follow truth in his actions, at any rate one should seek the truth and approach it as closely as possible.”

Nicole, *Ludovici Montalti Litterae Provinciales*⁵⁹

“But when two probables are compared, to reject that which is more probable is to do 1) unnaturally, and 2) unreasonably, and 3) imprudently.”

Taylor, *Ductor dubitantium*⁶⁰

These four quotations, and many more could be listed, indicate how a grand coalition of thinkers in the seventeenth century understood the guidance of

⁵⁷Descartes (1985), *Discours*, part 3, n.3; a similar statement can be found in a letter from Descartes to Elisabeth from 15. September 1645 (Descartes 1978: 153).

⁵⁸Locke (1990), IV, 20, 16.

⁵⁹Nicole (1658: 91), ep. 5: “Nam cum veri sequi quisque in actibus suis debeat; utique & veritatem quaerere, & quam proxime potest, ad veritatem debet accedere”.

⁶⁰Taylor (1660/1851: 185), Vol. 1, book 1, Chap. 4, §2.

‘the light of reason’ in matters of probability. Descartes, of course, believed that we can largely proceed on certain grounds in a fully developed system of science. He therefore only provisionally advocated allegiance to greater probability, but for the time being, this directive mattered for practical purposes. Locke developed a sophisticated approach to probable reasoning in the fourth book of his *Essay* around the demand to follow the greater probability. Pierre Nicole is quoted as a Jansenist theologian, who shared the Jansenist predilection for greater probability. Finally, Jeremy Taylor was a Protestant casuist. His *Ductor dubitantium* (1660) reflects many of the issues raised by Catholic High Casuistry, but Taylor abhorred probabilism and advocated the choice of more probable opinions over less probable ones. (On the whole, safety could also be preferred; Taylor was a probabiliorist).

GPC, the claim that the greater probability should *ceteris paribus* prevail over the lesser, and a changing combination of the other epistemological principles were a unifying bond between otherwise diverse and often mutually hostile opponents of probabilism: Aristotelians and anti-Aristotelians, Catholics and Protestants, scholastics and anti-scholastics, Cartesians and the admirers of Locke. In retrospect, such a coalition appears overwhelming, but it should not be forgotten how powerful the ‘immense machine of probabilism’⁶¹ had been in the first half of the seventeenth century, and how resilient it proved in Catholic moral theology. What ultimately matters philosophically are the arguments of both sides. Is it imaginable that the illustrious grand coalition for greater probability was wrong? On the other hand, is it conceivable that the large number of logically well-trained probabilist theologians committed a rather simple epistemological reasoning error? We will come closer to an answer to these questions in Chapter 10, when probabilism’s sophisticated approaches to doxastic voluntarism are discussed. With respect to the choice of propositions as premises of action, modern decision theory has resolved the problem in favor of probabilism. It can, indeed, be rational to follow a less probable proposition in action if the value of outcomes is sufficiently great. Greater probability is not the unique light of reason in rational decision making (see Chap. 12).

⁶¹See Merenda (1655: 41), n. 87: “haec immensa machina probabilitatis”.

3.2 Miguel de Elizalde (1617–1678)

Probabilists such as Caramuel, Fabri, Esparza, and Terill developed sophisticated answers to the challenges that arose from the arguments of early anti-probabilists, such as Bianchi, Mercori, and Fagnani. A new generation of anti-probabilists, in turn, reacted to the newly improved defenses of probabilism. Miguel de Elizalde is, in my opinion, the theoretically most sophisticated and interesting of this new brand of anti-probabilists.

Not much is known about the life of the Jesuit Miguel de Elizalde. He was, like many of his opponents and followers, a product of the Spanish university system. Elizalde followed the probabilist Martín de Esparza as professor in Valladolid, Salamanca, and Rome (1646–1659), where he only, however, taught for one year at the Collegio Romano.⁶² In 1659, Elizalde became rector of a Jesuit college in Naples, where he published a work on the forms of true religion (1662). Subsequently, after his return to a professorship in Valladolid, Elizalde engaged in the campaign against probabilism, running into problems with censors (the most notable being Esparza) and the Jesuit Superior General Gian Paolo Oliva. *De recta doctrina morum* (1670), Elizalde's important anti-probabilist treatise, was therefore published under the pseudonym Antonio Celladei. With this book and as a teacher, he exerted crucial influence on Tirso Gonzalez, a later Superior General and staunch anti-probabilist. In 1673, Elizalde was deprived of his position in Valladolid and moved to San Sebastian, where he died in 1678. It is unfortunate that not much more is known about Elizalde's life. It would be interesting to learn more about his influence in Naples, where rigorist tendencies in theology contributed to the conflicts that culminated in an infamous trial of atheists in the 1690s.⁶³ We will have to content ourselves with analyzing Elizalde's position in *De recta doctrina morum*.

The book has four parts, of which the first is an introduction to the debate on probabilism and to the uses of probability in moral theology. The second part is concerned with the nature of probability, and will occupy us most. In the third part, Elizalde examines whether and in which ways probable reasoning may serve as a guide in moral matters. In part four, the nature of doubt is addressed and how we should cope with it. Finally, the book includes an appendix on the nature of opinion.

⁶²The year is 1659, see ARSI Coll. Rom. 1659-60.

⁶³Galasso (1972), Chap. 19; Selwyn (2004); Stone (1997), Chap. 2.

Elizalde begins to develop his anti-probabilist position in *Part Two* with an incisive criticism of established scholastic notions of probability (questions 1–7). The familiar definition of a probable opinion as one that is buttressed by weighty but not utterly convincing reasons is targeted first. Elizalde demands to know what ‘weight’ is supposed to mean. Weight can only be ascribed to reasons relative to an intellect, that is, to cognitive processes, in which the reasons have weight. But whose intellects matter? The intellects of all people, including children, imbeciles, and the uneducated? That can hardly be the case. Reasons that move imbeciles need not be weighty. Hence, not all people, but only some people, matter for the determination of a reason’s weight. But who? Perhaps grave and learned men (*virii graves doctique*). Yet we do not know independently from a weighing of reasons which men are grave, and are therefore caught in a circle. Elizalde argued that Aristotle similarly got entrapped in a circle when trying to define the ‘right mean’ in ethics. The right mean is determined by right reason, and reason is right if it fits the right mean. However, in contrast to probabilists, Aristotle realized that his definition was insufficient. Moreover, in the case of grave men, the probabilists themselves differed about the composition of this category, as Elizalde pointed out. On the whole, it is not possible to circumscribe in a satisfactory way the set of scholars who are to be considered grave.

This is not a good omen for the second question, which asks whether probability might be defined with recourse to prudence and the prudent (or reasonableness and reasonable persons). Reference to the prudent is even more vague than reference to the learned. At least, many persons know that they are not learned and bereft of a thorough knowledge of theology. But as for prudence, hardly anybody regards himself as inferior to others. There is certainly hardly a person who considers herself imprudent.⁶⁴ We therefore do not know whose judgment matters with reference to an opinion’s probability.

With the next question, Elizalde turns to the academic skeptics and their notion of probability as discussed by Augustine. For the academic skeptics, the appearance of truth was to guide action. This is the prelude to Elizalde’s criticism of what he calls sophistic probability (*probabilitas sophistica*). Sophistic probability only reflects how things appear to us, but in moral theology, we need a more substantial notion of probability, which is

⁶⁴Elizalde (1670: 188), pars 1, lib. 2, q. 2: “Quinimo incertior & periculosior est ista ad prudentes, quam ad doctos appellatio. Sciunt enim plurimi, se parum esse in studiis versatos, se in theologia profecisse parum, & parvi fuisse habitos. At in prudentia vix aliquis alicui cedit; certe qui se prudentem non putet, vix unus inveniatur”.

rooted in things and facts. Elizalde calls this real probability (*probabilitas realis*).⁶⁵

A third notion of probability for Elizalde is the probability to become common, approved or received (*dari solitum*). This probability marks the impunity of an opinion, a power to defend it, or to publish it without impediment or prohibition. Opinions can thereby become probable for negative reasons, such as a lack of opposition. Later, Elizalde defines negative probability as the mere absence of convincing counter-reasons as opposed to a positive fundament of reasons for an opinion. He adds an interesting digression (q. 6), asking whether an opinion's probability is non-rescindable (*inauferabilis*). The only person that might be competent and entitled to rescind an opinion's probability is the Pope. However, Elizalde does not grant the Pope such competence without restrictions, some of which appear problematic under the premise of the Pope's infallibility with respect to official theological statements. Hence, we have another case of a theologian who ventilates a potentially heterodox claim in pursuit of a side issue while trying to buttress conservative views with his main argument. In any case, Elizalde soon returns to the question of negative probability, a form of probability which obviously does not suffice to guide conscience.

What we have seen so far is the most extensive critical discussion of received notions of probability in the anti-probabilist literature. Only one year earlier (1669), the probabilist Anthony Terill had presented a similarly detailed critique of inadequate definitions of probability. The conceptual analysis of probability was thus brought to a new and higher level around 1670. Probabilists and anti-probabilists alike thought that the established theological notions of probability had to be put on firmer and better foundations than had been customary.

In questions 8–15, Elizalde deals with the assumption of both-sided probability (that is, both sides of a contradiction can be probable). This notion, which had characterized scholastic approaches to the choice of opinions since the Middle Ages, had never before been subject to sustained criticism. Elizalde takes the unusual step of exclusively focusing on speculative propositions, that is, extra-moral facts or states of affairs, avoiding the moral overtones and indirect (i.e. 'reflex') meta-reasoning which were common in

⁶⁵Elizalde (1670: 202), pars 1, lib. 2, q. 4, §2: "distinguenda est in probabilitatem non in re, sed quoad nos solum talem, & in probabilitatem talem in re, quam appellamus realem: sicut primam fictam & sophisticam. Secunda pertinet ad moralem scientiam: prima pertinet ad pseudomorem scientiam".

scholastic analyses of deontic propositions (e.g. permissions, prohibitions). One of his main claims is that opposed sets of reasons can be neither weighty (*gravis*) in themselves (*quoad se*) nor for us (*quoad nos*) simultaneously. It is impossible for the sets of reasons for the truth of opposed propositions to be in themselves both sound and weighty, because only one of the propositions in question can be true. Moreover, they cannot both be weighty for us because they cannot at the same time compellingly pull us to their side. Hence, both sides cannot be simultaneously probable because their pull towards assent is what distinguishes the strength of reasons in most scholastic accounts.⁶⁶ In the end, we can always only be pulled towards one side or remain indifferent in a perfect balance of reasons. This is also true in the case of two trustworthy men of substance who oppose each other. In this case, neither of them should be believed, because each one's authority cancels out the other's.⁶⁷

It follows that all talk about both-sided probability is only sophistic, documenting a superficial appearance that vanishes on deeper reflection (q. 9). This conclusion has immediate implications for the adequacy of concepts of probability. Elizalde was aware that approval-based concepts of probability (as, for instance, the endoxical) can lead to both-sided probability. If, for instance, strong reasons speak for *p* but a crowd of scholars (*turba doctorum*) endorse not-*p*, both sides may be probable with respect to approval.⁶⁸ Proposition *p* may gain approval because of the better reasons, whereas not-*p* has a good chance of approval because many people tend to follow scholarly opinion. But such a standoff is impossible once probability is understood as real probability, as the case should be in matters of conscience. (In Chapter 12, we will return to the question whether Elizalde's arguments against both-sided probability can be countered). Elizalde makes the strong claim that his rejection of both-sided probability is in itself not merely an instance of probable reasoning but capable of demonstrative proof (q. 11). It can be demonstrated, as he claims, that the scholars on both sides of a disputed (speculative) question cannot all be trustworthy experts. One group of scholars is inevitably wrong and not experienced enough or ignorant.⁶⁹

⁶⁶Elizalde (1670: 235), pars 1, lib. 2, q. 8, §5: "Rursus probatur; quia quando simul nobis occurrunt, & concurrunt illa fundamenta, non sunt utraque simul gravia quoad nos: sed a parte rei, & in se utraque simul concurrunt, & existunt: ergo alterutra non sunt gravia in se, & quoad se; id est, alterutrum vel si verum est, nihil sequitur ex illo conclusio illa".

⁶⁷Elizalde (1670: 236), pars 1, lib. 2, q. 8, §5: "tunc neutri credes, quia alter alterius est impugnatio".

⁶⁸Elizalde (1670: 245), pars 1, lib. 2, q. 10, §1.

⁶⁹Elizalde (1670: 251), pars 1, lib. 2, q. 11.

Elizalde then buttresses his claims with the authority of Aquinas, and draws some conclusions concerning moral safety and legitimate action.

In questions 16–20, after many rounds of critical argumentation, he finally approaches his own positive suggestion. He poses the question whether intrinsic probability, that is, reasons-based probability, signifies what almost always tends to happen (q. 16). Elizalde derives this approach from Aristotle's notion that what is probable is what frequently (*ut frequenter*) happens and gives credit to Pietro Sforza Pallavicino for pointing out its relevance for moral theology. If frequentism is true, two incompatible propositions cannot both be probable, because they cannot both rely on reasons that are almost always true. Note that Elizalde does not focus on the probability of observable events. He argues in terms of reasons for the truth of propositions, and the frequency with which a set of reasons produces truth. Elizalde is aware that for his approach to succeed, generalizations or laws that underlie a process of probable reasoning should not generate necessarily true conclusions. They must rather be contingent and produce true and false results with only some high frequency. On this basis, Elizalde is confident that many things that appear probable to us can be discarded as sophisms (q. 17), a preparative step with respect to the quest for sound judgments of probability that convince us (*quoad nos*) and are based on fact (*in re*). Moreover, Elizalde has so far only addressed intrinsic probability, but his frequentist approach has import for extrinsic probability as well. A proposition is extrinsically probable for Elizalde if it is buttressed by the opinions of persons who almost always judge correctly or, what is the same, hardly ever fail (q. 18). He points out that this view is at least implicitly based on traditional rules of witness testimony (q. 19), and that it allows for distinguishing degrees of authority (q. 20).

Part Three of De recta doctrina morum mainly deals with the moral illegitimacy of probabilism. The respective arguments, of course, are heavily dependent on the arguments of *Part Two*, but we do not have the space here to take a closer look at them. The same is true for the analysis of doubt in *Part Four*, which again contains a remarkable piece of conceptual analysis, leading to the conclusion that an equal probability of both sides in a controversy must lead to doubt. Elizalde claims that it is not legitimate in such a standoff to assent to one side. A bit more can be said about the *Appendix* on opinions. The concept of opinion was usually not analyzed in depth in moral theology up to the 1660s. Summary definitions of 'opinion' as assented proposition combined with the fear of error were usually offered at the outset of

discussions on the ‘probable conscience’, very much as ‘probable opinion’ was only defined in passing. Elizalde’s detailed discussion of the notion of opinion fostered a new trend of increased attention, not only with respect to the notion of probability, but also to that of opinion. In the *Appendix*, Elizalde also identifies doxastic voluntarism as a main claim of his opponents, which he rejects, but without answering the new approaches of Esparza and Terill, which apparently appeared too late to be accounted for in the *De recta doctrina morum*.

3.3 Tirso Gonzalez de Santalla (1624 –1705)

Tirso Gonzalez de Santalla was one of the most influential supporters of anti-probabilism.⁷⁰ As Superior General of the Jesuits he launched a campaign against probabilism in his order, which not only became a significant event in the order’s history, but also a defining moment of anti-probabilism. Gonzalez’s prominence as an opponent of probabilism justifies a deeper look at his approach, although it seems doubtful whether he is on the same level as Elizalde with respect to theoretical reasoning. Jean-Pascal Gay and Sven Knebel have written extensive accounts of Gonzalez’s thoughts and activities, which allow me to be succinct, even with respect to the momentous in-house battles among the Jesuits that he sparked.⁷¹

Upon entering the Society of Jesus in 1643, Gonzalez started his career teaching philosophy and theology in Salamanca, until he resigned in 1665 to work as a missionary. Subsequently, he became a notable preacher in Spain and concentrated on the conversion of Muslims. His missionary activities in Northern Africa showed no great success, but led to his writing a *Guideline for the conversion of Muslims* (*Manductio ad conversionem Mahumetanorum*, published in 1687). As a missionary and preacher, Gonzalez displayed conservative

⁷⁰I must admit a somewhat bad conscience about discussing only Jesuits as representatives of an advanced and ripe anti-probabilism. Of course, throughout the whole history of anti-probabilism many of its representatives came from other orders, too. However, I am here not focusing on particularly influential anti-probabilists but on theoretically seminal ones. Elizalde is in my view without doubt the most important theorist in this respect. It would have been acceptable to pair him with the Paulan minim Francisco Palanco, whose *Tractatus de conscientia humana* (1694) bears some theoretical interest. Nevertheless, in final consideration I opted for Gonzalez de Santalla, whom I did not dare to neglect.

⁷¹Astrain (1920); Gay (2012); Knebel (2009). Gonzalez is also discussed, albeit in less depth, in Maryks (2008).

moral attitudes, for instance, by criticizing the morality of the Baroque Spanish theater. In 1676, his career took another turn when he accepted the offer to become professor of theology in Salamanca, where he taught some of the most prominent anti-probabilists of the next generation, such as Ignacio de Camargo. In 1687, Gonzalez's life as an academic teacher ended due to his election as Superior General of the Jesuit Order, having been Pope Innocent XI's favored candidate. Gonzalez immediately set out to fight probabilism and promote probabiliorism in his order, complying with the Pope's objectives. This sparked an acrimonious controversy among the Jesuits (fittingly called 'the Jesuit civil wars' by Gay), which has been outlined in Chapter 3.

Gonzalez had finished a first treatise against probabilism by 1674, apparently motivated around 1670 by his teacher Elizalde's anti-probabilism.⁷² The subsequent scandal around the latter's *De recta doctrina morum* did not prevent Gonzalez from seeking a printing license for his own anti-probabilist work. However, Superior General Oliva thwarted the emerging anti-probabilist campaign in his order. Gonzalez was denied permission to publish his work, but Oliva's directives did not prevent him from proselytizing for anti-probabilism. The Jesuits were generally not exempt from the patronage and clientele-centered thinking of early modernity. If the directives of a superior clashed with the interests of an agent's network of patronage and clientship, obedience usually hinged on the perceived power of this network. Often, loyalty to one's network was more important than official hierarchies, in particular if the network had a fair chance of defending its position.

Gonzalez's elevation to the top of the Jesuit Order was of course a game changer in this respect. Now, Gonzalez and his allies (ultimately comprising the Pope, the Inquisition, and the Habsburg courts) could successfully work towards publishing his anti-probabilist treatise. In the officially sanctioned 1694 version, Gonzalez's *Fundamentum* consists of fourteen dissertations on the use of probable opinions.⁷³ It begins with an introduction on the state of the debate on probabilism and then proceeds to show that probabilism was not the dominant doctrine in moral theology or—concerning the choice of

⁷²In 1674, Gonzalez's planned book was censored, see Gay (2012: pp.146).

⁷³The much shorter unlicensed 1691 version of the *Fundamentum* only contains four dissertations, despite listing ten in the table of contents. To the best of my knowledge, the only extant exemplar of the 1691 edition is in the Biblioteca Corsiniana in Rome (see Gay 2012: 163), where I had the opportunity to inspect it.

opinions—among seventeenth-century (*hujus saeculi*) Catholic theologians. The third dissertation tackles the foundations of probable reasoning. Like his anti-probabilist peers, Gonzalez denies the assertability of equal or less probable opinions. In contrast to Elizalde, he knows and rejects Esparza's and Terill's new arguments for doxastic voluntarism (see Chapter 10). Several dissertations inveigh against an overvaluation of human liberty against moral obligation and divine legislation. Gonzalez rejects bold interpretations of the principle that an uncertain law does not bind, which denied an obligation-creating force to a moral restriction, even though the validity of the restriction was only slightly doubtful. For him, love of God implies a willingness to be bound by God's laws, even under uncertainty about the laws' validity, not least because human beings need to rely on probable reasoning in moral matters, where epistemic certainty is often unattainable. These are standard anti-probabilist arguments, but it is conspicuous that Gonzalez spends much more time elucidating the proper use of the Principle of Uncertain Law than with the discussion of the second fundamental principle of probabilism that the position of the possessor is stronger. There are also some arguments *ad personam*. Two entire dissertations focus on the rebuttal of theses from Anthony Terill and Juan Caramuel. Terill had argued that if probabilism were wrong, most Catholic theologians of the seventeenth century had obviously systematically misled the faithful, something that God would not have permitted. Gonzalez responded that in this case, most theologians in the history of Christianity must have erred and misled the faithful, because probabilism did not exist before Medina, and the theologians of old were anti-probabilists. If God could not accept the misdirection of contemporary Christians, he a fortiori could not will them to be misled for a much longer time. Despite such arguments *ad hominem*, Gonzalez is quite moderate in judging Terill and his probabilism. Like Esparza, Terill is depicted as one of the more prudent, moderate probabilists who tried to curb the excesses of laxism, while agreeing with Gonzalez with regard to the requirement that probable opinions must be reasonably assertable. Gonzalez is much more hostile towards Juan Caramuel, the non-Jesuit among the advanced probabilists. Like in Terill's case, the dissertation against Caramuel focuses around a single argument, a typical Caramuelian meta-level consideration concerning an apparent contradiction in probabiliorism. If we are bound to follow the more probable opinion, as probabiliorists claim, we should follow probabilism, because most moral theologians by far endorse probabilism and

it therefore clearly seems to be the most probable doctrine for the choice of opinions. That is, probabiliorism tells us to favor probabilism, which in turn legitimizes the use of less probable opinions. With some revulsion, Gonzalez remarks that Terill acknowledged the validity of this reflexive argument.

He then presents a long quote by Andreas Junius (the Scottish theologian Andrew Young, who was active in Spain).⁷⁴ Young opposed Caramuel's argument on the grounds that it conflated reflexive and direct probability. What probabiliorists want to say (and ought to say) is that a directly more probable opinion should *ceteris paribus* be preferred to a directly less probable opinion. Direct probability represents the reasons that speak for the truth of a proposition as arising from the content of the proposition and its relation to the world. Note that direct probability is not co-extensive with intrinsic probability. It rather is opposed to reflexive probability, because reasons for the assertability of a proposition, which result from rules of conduct under uncertainty, do not constitute direct probability but could produce intrinsic probability. They can be reasons that an agent knows himself rather than being accessed through the opinions of others. This sounds complicated, as indeed many advanced considerations concerning scholastic probability are, but the issue can be explained with an example already used above. A soldier believes that it is probably morally permissible to shell a village with artillery. He may consider such action to be proportionate in war, and his probability judgment is direct if it is based on moral reasoning, which takes the specificity and circumstances of the case into account. Alternatively, the soldier may think that it is probably permissible to shell the village because he is ordered to do so and remembers the rule that orders have to be obeyed unless they are manifestly unlawful. He is uncertain whether he remembers the rule correctly, and his judgment of permissibility is therefore only probable and reflexive, because it is based on a rule that tells him how to treat his own assessment. In any case, there is no extrinsic probability involved here because the soldier depends on his own information and does not rely on the opinions of others.

Young used the outlined set of distinctions against Caramuel, in whose argument the greater probability of probabilism depends on a doctrine of legitimate conduct, namely probabiliorism, and not on direct reasons for probabilism. Hence, probabilism was only reflexively more probable. Young

⁷⁴The quote is from Young's treatise on conscience, which apparently only existed as a manuscript. I could not locate the manuscript.

also showed that this amounted to a mere probable probability. Yet if probabiliorism was restricted to greater direct probability, as Young suggested, Caramuel's argument collapsed. Young's argument is reported at some length here, because the issue of direct probability will reappear with respect to Gonzalez's own position in due course. In dissertation thirteen, however, Gonzalez seconds Young's considerations with a theoretically much less interesting argument of his own. A long historical exposition attempts to document that most theologians in the history of the Church were anti-probabilists. Hence, Caramuel's claim that probabilism is clearly the more probable doctrine on extrinsic grounds can be rejected, and with it, his clever reflexive argument.

On the whole, Gonzalez's arguments would so far not entitle him to an elevated place in the intellectual contest with probabilism. Similar arguments can be found in many anti-probabilist treatises, and Gonzalez shows no sign of Elizalde's innovativeness. However, there is one claim for which Gonzalez's anti-probabilism has become noted in retrospect: he is credited with having developed a powerful subjective version of probabiliorism. Sven Knebel even speaks of Gonzalez as a 'martyr of an ethics of conviction' (*Märtyrer der Gesinnungsethik*).⁷⁵ It is difficult to imagine what kind of martyrdom Knebel has in mind. After all, Gonzalez was not incarcerated for his doctrines, but chosen to lead the Jesuit Order. He was vilified by his opponents and became a controversial figure, and if that qualifies as martyrdom, Gonzalez may have been a martyr. Knebel quotes Protestant comments on Gonzalez's moral theology, which indicate that he indeed was portrayed as coming close to Luther's defiant 'Here I stand I can do no other'. But this is Protestant propaganda and not an apt summary of Gonzalez's Catholic position. There is a huge difference between Luther's defiant stance and the activities of a Jesuit Superior General, who had the backing of the Pope, the Inquisition, and the Habsburgs.

It is moreover not appropriate to style Gonzalez's probabiliorism as an 'ethics of conviction' (*Gesinnungsethik*). Given the Lutheran and Weberian connotations of this term, such characterization is bound to be misleading. What Gonzalez discussed in the fifth dissertation of his *Fundamentum* was the question 'Whether a learned man is allowed to act following the opinion of others, which he considers less probable, against his own safer (*magis tutam*)

⁷⁵Knebel (2009: 247). The claim receives special emphasis by being repeated on the back cover of Knebel's book.

opinion'.⁷⁶ Gonzalez denied that choosing such a path would be licit, and he thereby opposed the probabilist permission to deem one's opinion more probable, but act according to the less probable opinion of others. Gabriel Vazquez had defended this permission long ago, as Gonzalez duly notes, and it had become characteristic for probabilists who were called 'reflexists' (*reflexistae*) around 1700. But Gonzalez's opposition to the *reflexistae* was far from what is usually understood as an 'ethics of conviction' or a defiant 'Here I stand' position. Note that even in Gonzalez's anti-probabilism an agent only needs to follow his own opinion if it is safer than that of others. Otherwise, the agent might as well follow a safer and less probable opinion of others against his own. Moreover, Gonzalez explicitly discusses the case that the agent's own opinion might contradict the opinions of several other learned men. The anti-probabilist Giulio Mercori in such cases permitted following the opinions of others whom the agent considered to be more competent than himself. Gonzalez does not object to this option, but insists that the agent cannot then regard his own opinion as more probable. If others are considered more competent than himself, the agent should assent to their opinion and thus act in accordance with the opinion he regards as being the most probable. However, this was not really the case probabilists envisaged. They were more concerned with the issue of an agent following the opinions of others which he considers less probable than his own. The question was then whether an agent might legitimately continue believing that his own view is true and better justified while, for instance, acting in accordance with a collectively preferred belief which conflicted with his own view. This question arises in many contexts of collective action, e.g. when a manager implements the decision of a board of directors, despite believing that he has a better plan.⁷⁷ The interesting point here are the conditions for morally required dissent. Probabilists (of the Esparza-Terill strain) call for overt dissent if the manager does not believe that the board's decision is reasonably defensible (e.g. from the perspective of other competent and well-informed managers), whereas Gonzalez demands dissent if the manager himself is not ready to change his

⁷⁶Gonzalez (1694), diss. 5: "An liceat viro docto operari contra sententiam propriam magis tutam, sequendo opinionem aliorum, quam ipse minus probabilem censet".

⁷⁷Another example, closer to the early modern era, is a prince who follows the advice of his counselors. The prince may not share the opinion of his counselors and regard his own views as better, but follow their unanimous counsel with good conscience, knowing that a good ruler should not insist on his own opinion against a closed front of counselors. See Lacroix (1707), lib. 1, tract. 1, art. 2, dub. 2, q. 49, §3: "similiter prudentis est, non nimium stare iudicio proprio, sic enim principes sapientissimi cedunt iudicio consiliariorum contra proprium".

view and consider the board's decision as being optimal. None of these options is equivalent to a 'Here I stand' approach of straightforwardly fighting for the plan in which one believes, or of valuing one's convictions more than the consequences of one's actions.

Jean-Pascal Gay calls Gonzalez's approach subjectivist.⁷⁸ This tag is also problematic, given the meanings that 'subject' and 'subjectivism' acquired in modernity, although it might be broad enough to cover what Gay intended. Gonzalez asserted that agents ought to only act on moral opinions the agent—all things considered—subjectively believed to be most probable and true. That is, he endorsed the Assent Condition. However, note that the requirement of a final 'subjective', or perhaps better 'personal', belief in the permissibility of one's actions had been characteristic of scholastic theories of conscience since the Middle Ages.⁷⁹ Probabilists in no way broke with this tradition, they only clarified that in their view, it sufficed when an agent, all things considered, subjectively regarded it as permissible in a given case to follow a less probable opinion. Gonzalez, by contrast, called for a different subjective judgement, but whether that renders him more subjectivist is debatable. After all, probabilism entitled an agent to hold fast to her subjective opinion, even if she acted on the opinions (or plans) of others, whereas Gonzalez required the agent in this case to abandon (*deponere*) her opinion.

Maybe it is best to use the terminology of the period and call Gonzalez's position direct probabiliorism. It then becomes clear that this position was shared by many other anti-probabilists, such as Andrew Young (see above) or Gonzalez's pupil, Ignacio de Camargo. Direct probabiliorists assumed that less safe opinions could only be licitly followed if the agent considered them more probable on direct grounds. As outlined, probability was direct if it arose from the moral properties of a case and its circumstances, without taking rules of conduct and meta-considerations into account. This framing will be less familiar to modern readers than references to 'subjectivism' or an 'ethics of conviction', but it is more adequate, albeit at the price of rendering Gonzalez less interesting to moderns. In any case, due to his position as Superior General of the Jesuit Order and the Europe-wide dispute about his moral

⁷⁸Gay (2012: 138): "For Gonzalez, as for his critics, this subjectivist turn was the key to his doctrine".

⁷⁹See Section 2 for the possibility of applying the subjective/objective terminology in matters of conscience, at least for seventeenth-century scholasticism, but I would be reluctant to use it for earlier periods.

theology, Gonzalez may have done more for the spread of direct probabiliorism than anybody else.

4. Conclusion

From the 1640s onward, the great debate on probable opinions in Catholic moral theology engendered protracted analyses of the conceptual foundations of probability and opinion. Different conceptions were suggested and refined in the wake of mutual criticism between probabilists and anti-probabilists. As a result, the great debate on probable opinions ventured far beyond the old endoxical definition of a probable opinion as an approved and reputable opinion. The *endoxon* continued to represent extrinsic probability, but for the rest, reasonable assertability came to the fore as a core criterion of probability, inasmuch probability was still considered to be a category that summarized the strength of reasons in favor of the truth of a proposition. On this basis, the scholastic pluralism of opinions could explicitly be conceived as a space of reasonable disagreement between competent observers or evaluators. Alternatively, and with explicit recourse to Aristotle, a frequency view of probability was developed by leading anti-probabilists. Moreover, different versions of the distinction between subjective and objective probability were discussed by scholastic authors.

Altogether, the theoretical controversy between probabilists and anti-probabilists was full of epistemological arguments, most of which were put on the table as early as the 1640s. A central point of contention was the Greater Probability Claim (GPC), which assumes that assent could only be given to the most probable in a set of competing opinions. Probabilists had to develop sophisticated accounts of doxastic voluntarism to counter this claim. Together with the assumption that probability implied reasonable assertability, GPC could be used to reject the traditional scholastic assumption of both-sided probability. In modern terminology, many anti-probabilists therefore denied that reasonable disagreement could truly arise, all things considered. They claimed that antagonistic sets of reason cancelled each other out, or at least diminished each other's assertability so severely that only a clear difference of strength for one side could justify reasonable assent. This line of argument also pertained to clashes of expert opinions, assuming that disagreeing experts

neutralized each other. Probabilists, by contrast, did not accept that opposed reasons neutralized each other's import. Even under conditions of peer disagreement, competent reasoners were entitled to trust the weight of their justifications in theory and in practice.

The two opposing views of probabilists and anti-probabilists with respect to the epistemological implications of reasonable disagreement resemble the two basic positions that are still on the table today. As in the seventeenth century, theorists of reasonable disagreement today clash about whether opposed reasons or expert opinions neutralize each other or not.⁸⁰ Insofar, we may conclude that the debate on probable opinions in the Baroque era revealed the philosophical difficulties of reasonable disagreement in some depth for the first time.

⁸⁰See Christensen and Lackey (2016); Sosa (2010).

Chapter 9: Delimiting the Space of the Reasonable – The Challenge of Probable Probability and Slight Probability

The debate on merely probable probability (*probabilitas probabilis*), and to a lesser extent the related treatment of slight probability (*probabilitas tenuis*), is one of the philosophically most interesting developments within the larger debate on probable opinions in the seventeenth century. If probability is understood as explicitly implying reasonable assertability, as was widely the case in the second half of that century, the concept of probable probability raises questions of reasonable assertability for propositions whose reasonable assertability can only be probably recognized. A proposition whose truth is only reasonably assertable on the basis of its probability is *ceteris paribus* epistemically less justified than a proposition whose truth is evident or certainly recognizable. The same is true, of course, for propositions whose probability can only be justified on the basis of mere probable reasoning and without certitude. Certainly probable propositions are thus *ceteris paribus* epistemically better justified than merely probably probable ones. On the other hand, ‘probable’ signifies reasonable assertability, and if the reasonable assertability of p is again reasonably assertable, then p should be reasonably assertable all things considered – or so one might think.

It is not difficult to detect the problem behind this claim. If we write RA for ‘reasonably assertable’, we can easily conceive nested chains of propositions that state the reasonable assertability of their content. The following *Reduction Claim* can then be made for a two-level nested proposition RA(RA(p)):

$$\text{RA}(\text{RA}(p)) \rightarrow \text{RA}(p).$$

Yet why stop at the second level? If the reasonable assertability of p ’s reasonable assertability guarantees the overall reasonable assertability of p , why should the mere reasonable assertability of *this* reasonable assertability not suffice? Or generally:

$RA^n(p) \rightarrow RA(p)$, where n stands for the n -th iteration of the RA-predicate.

This is a problematic claim because the epistemic support for assent to p decreases with each iteration, and can apparently be pushed below any given positive number by increasing n *ad infinitum*. Scholastic commentators on probable probability were aware of this problem of infinite weakening, as we shall see. For this reason and others, they connected probable probability with the notion of a probability that was too weak (*tenuis*) to justify assent or actions.

Such considerations document that the formal delimitation of the set of reasonably adoptable opinions was one of the major topics in the great debate on probabilism during the seventeenth century. Moreover, the insight that the delimitation of ascriptions of probability and reasonable assertability faced serious formal problems—such as the outlined problem of infinite weakening—is of particular philosophical relevance. The underlying problems do not depend on acceptance of specific theological or moral views (e.g. that atheism or homosexuality is morally bad), they are of an entirely general nature. We will therefore examine the debate on probable probability in some detail, and to a lesser extent its companion debate on slight (*tenuis*) probability. First, the genesis of the debate will be explored, followed by a thematic reflection on some of its components. We will see that the above mentioned problem of infinite weakening gave rise to skepticism and instigated the discussion of ancient forms of skepticism. Moreover, Juan Caramuel's views on probable and slight probability are of interest for us, given that he was one of the most daring practitioners of probabilism. For this reason, his *Dialexis de non-certitudine* (1675) will be discussed in the present context. Towards the end of the chapter, the general philosophical significance of scholastic forays into the problem of (self-)reflexive use of the predicate 'probable' (indicating reasonable assertability) will be analyzed again.

1. *The debate on slight and probable probability*

Initial considerations on merely probable probability seem to have emerged in the writings of Francesco Merolla (1568-1638), an otherwise hardly known Oratorian from Southern Italy.¹ Since scholastic authors often quoted their sources (which unfortunately cannot be said of the early modern avant-garde of philosophy), a quotation chain can be traced back to Merolla. In his *Disputationes in universam theologiam moralis* (1631), he first approvingly repeated the received view that it was not permissible to follow opinions whose probability was seriously in doubt. Merolla then added that one might also not follow an opinion whose probability was not evidently clear but only given with some probability, at least if the counter opinion was evidently probable. The case might be different, he noted, if the counter opinion was also not evidently probable.²

This crisp judgment raised questions. Can the probability of a proposition be at all evident in the strong sense of indubitability or clear and distinct cognition? And how did Merolla's view on probably probable opinions link up to older claims on minimally (*minime*) or slightly (*tenuiter*) probable opinions? Although some other authors endorsed the requirement of evident probability in the 1630s, the next step in a budding debate on probable probability was apparently taken by the Theatine Zaccaria Pasqualigo (1600–1664).³ Today, Pasqualigo is hardly better known than Merolla, but as one of the reviewers of Galilei's *Discourse* in the trial of 1632/33, he is slightly more accessible. What matters for our purposes, however, is his stance on probable probability in his book *Decisiones morales* (1641). Decision 18 addresses the question whether when operating on the basis of a probable opinion, its probability evidently needs to be known. Pasqualigo first lists authors who affirm this requirement, Merolla being the one who published his work earliest. However, he then claims that it is not necessary to evidently or

¹For minimal information on his person, see Turrini (1991: 129). Merolla was apparently an exponent of the group of probabilists who flourished under the Barberini (see Chapter 3). His *Disputationes* are dedicated to Urban VIII.

²Merolla (1631: 471), disp. 3, cap. 4, corr. 3: “Si alicui non constaret evidenter, quod aliqua opinio sit probabilis, sed tantum de hoc haberet aliquam probabilitatem, existimo in hoc casu non posse iuxta illam operari, si ex altera parte conraria adest opinio evidenter probabilis: secus vero, si nulla opinio evidenter probabilis esset in oppositum”.

³The other mentioned authors are Baldelli (1637) and Bresser (1638).

otherwise know with certainty that an opinion on which one operated is probable. It suffices if the opinion's probability is probable. Pasqualigo adduced that it is generally permissible to follow probable opinions in action. Hence, this should also be the case if the activity in question is the selection of opinions.⁴

Here then is at least an answer how we should conceive being probable as evident. For Pasqualigo, the level of certainty to be reached is that of moral certainty, i.e. that it must be practically beyond reasonable doubt that an opinion is probable. This could be achieved on the basis of obviously strong—if not demonstrative—reasoning, or relying on the consensus of experts that an opinion was probable. In other words, it was not necessary to find unimpeachable evidence or attain metaphysical indubitability.

In Decision 19, Pasqualigo rejects the legitimacy of operating with doubtfully probable opinions, while Decision 20 covers opinions with a probability of minimal degree (*minimus gradus*). Such opinions are distinguished from those of probable probability. Pasqualigo traced the question whether we may licitly follow opinions with a minimal degree of probability to older authors, such as Navarrus, de Soto, Suárez, and Salas. These authors allowed the use of minimally probable opinions in cases of emergency, when further reflection or the search for a more solidly confirmed opinion is not possible.⁵ For Pasqualigo, however, the use of probable opinions of minimal degree was permissible if it is clear that the opinion in question is truly probable. As an object with a minimal degree of whiteness is nevertheless white, a probable opinion of minimal degree is, after all, probable. Hence, it is legitimate to follow such an opinion.

Together with Antonino Diana, a quintessential permissive casuist, Pasqualigo formed part of a network of Theatine probabilists with close connections to the Barberini court (see Chapter 3). Pasqualigo's permission to follow minimally probable and merely probably probable opinions was a momentous step in the development of permissive casuistry under the Barberini pontificate. With the change of the moral climate in the second half of the seventeenth century (one is tempted to adopt the terminology of

⁴Pasqualigo (1641: 16), dec. 18, n. 2: "Dicendum tamen est: ut quis possit secunda conscientia operari secundum opinionem probabilem, non est necesse, ut ipsi evidenter constet de probabilitate ipsius nec ut aliquo alio modo sit certus de probabilitate; sed sufficit si probabiliter indicet esse probabilem". Reference to Merolla's received view is made in n. 1, a justification for Pasqualigo's decision follows in n. 3.

⁵See also the detailed discussion in Bossius (1649).

climatologists and speak of a ‘little ice age’), Pasqualigo was finally suspected of laxism. In any case, his prominence in this respect was eclipsed by an author who made the same claim but received a harder bashing. In *Explicatio decalogi* (1654), the Sicilian Jesuit Tommaso Tamburini wrote:⁶

“whenever a however slight probability, whether intrinsic or extrinsic, remains within the boundaries of probability, when acting on it, we always act reasonably.”

And:⁷

“I consider it absolutely sufficient in all cases if an opinion is probably known to be probable. In this case, the truth that guides me in these things is morally certain enough: I operate reasonably here and now, because I follow a judgment reasonably enough, as long as I deem it probable with probability.”

Although Tamburini followed the precedent of others in these assessments, he became rapidly embroiled in the rising storm of anti-probabilism in the 1650s. The great historian of probabilism, Thomas Deman, mentioned that the priests of Paris called for Tamburini’s condemnation in 1659. He also claimed that Tamburini was the first to write about probable probability, which is not true as we have seen, but tells us something about the notoriety this Jesuit achieved.⁸ Anti-probabilists, such as Vincent Baron, accused Tamburini of laxism and as coming close to being a libertine by licensing the use of opinions of even the slightest (*tenuissima*) probability. Moreover, Baron and many others simply regarded merely probably probable opinions as a form of slightly probable opinions, a step that neither Pasqualigo nor Tamburini had taken. In Baron’s final judgment, permission to follow slightly

⁶Tamburini (1669), lib. 1, cap. 3, §3, n. 3: “dum probabilitate sive intrinseca, sive extrinseca quantumvis tenui ... modo a probabilitatis finibus non exeatur ... confisi aliquid agimus, semper prudenter agimus”.

⁷Tamburini (1669), lib. 1, cap. 3, §3, n. 8: “absoluto puto satis esse in omnibus casibus constare probabiliter opinionem esse probabilem: tunc enim satis firmabitur certa moraliter illa veritas me in hunc modum dirigens”. “Ego hic&nunc prudenter operor; quia, dum probabiliter puto hoc esse probabile, satis prudenter illud iudicium in praxi sequor.”

⁸See Deman (1936: 487, 516) for both claims.

or probably probable opinions led to Pyrrhonian skepticism and to the utter ruin of Christian faith, religion, and probity.⁹

Given such stark opposition, it comes as no surprise that the anti-probabilist Pope Innocent XI condemned—among other sentences—the following in 1679:¹⁰

“Generally, whenever a however slight probability, whether intrinsic or extrinsic, remains within the boundaries of probability, when acting on it, we always act reasonably.”

This, of course, was Tamburini’s claim, and the condemnation damaged his reputation, although others had made virtually identical statements. The matter seemed to have been finally decided following the papal condemnation, but we will see below how clever probabilists extricated their claims from the papal ban against tenuously probable opinions. Merely probable probability is not mentioned in the condemnation. It was therefore possible to continue advocating its use, although the widespread equation of probable probability and slight probability caused a bad odium for this position.

It is understandable that many moral theologians were not pleased about a far-reaching rejection of slight probability. If *tenuis probabilitas* referred to opinions whose truth was only backed by very slight reasons, it seemed obviously appropriate to reject their use as premises for moral action, let alone assent to them. But this was not what Pasqualigo, Tamburini, and others claimed. They referred to opinions that had just barely made it beyond the threshold of being probable, and were thus prudently eligible or reasonably assertable. *Tenuis*, in this respect, only meant that the epistemic backing of such opinions did not exceed the threshold of being probable by much. It is not clear, why the use of opinions which minimally lie above the threshold of probability should be condemned, if the use of less probable opinions against more probable ones is permitted. The most likely explanation is that Innocent XI did not dare condemn probabilism in general (see Chapter 8 on the turmoil

⁹See Baron (1667: 71), disp. 1, sec. 5, §1: “Notantur variae laxitates”; (77): “non certo, sed tantum probabiliter probabilem et uno verbo tenuissima probabilitatis”; (80): “Ergo ex hac regula inducitur Pyrrhonismus, Christiana fides, religio et probitas funditus evertuntur”.

¹⁰Denzinger (1854: 259): “Generatim, dum probabilitate sive intrinseca, sive extrinseca quantumvis tenui, modo a probabilitatis finibus non exeatur, confisi aliquid agimus, semper prudenter agimus”.

sparked by the attempt to make the Jesuits abandon probabilism), but did lash out against a claim that at least sounded lax by allowing the use of something tenuous.

One of the most influential defenders of probable probability was the Jesuit Juan Cardenas. Cardenas' *Crisis theologica* (1670) was a sustained attack on Juan Caramuel and his probabilism. By distancing himself and the Jesuit Order from Caramuel, Cardenas sought to ward off the accusation of laxism. Jesuit probabilism, as can also be read in other Jesuit writings of similar date, is prudent and moderate, and does not countenance the extremes of a Caramuel. However, Cardenas defended the use of merely probably probable opinions. In the 1670 edition of his *Crisis*, the defense of his fellow Jesuit Tamburini against Baron's accusations was brief and cursory.¹¹ In the 1687 edition, which is actually a sequel to his earlier work and contains entirely new content, Cardenas went into more detail concerning the use of probably and slightly probable opinions, apparently motivated by Innocent's condemnation. He first took issue with Ramon Lumbier and Emmanuel Filguera, who had written commentaries on Alexander VII's and Innocent XI's condemnations of lax moral propositions. In their comments on the incriminated sentence from Tamburini, both had equated merely probable with slight probability.¹² Cardenas, by contrast, pointed out that the concept of a slightly probable (*tenuiter probabilis*) proposition was a contradiction in terms. 'Probable' by definition implied that a proposition was based on solid and strong truth-directed reasons, *tenuis* implied that the reasons in question were weak and insufficient. Hence, *tenuiter probabilis* could only be applied to propositions that were not really probable, so that no reasonable person could act on them. It only fitted propositions that were supported by flimsy reasons. In short, slightly probable did not imply probable.

Probable probability, on the other hand, was a true kind of probability. It occurred, for instance, when a good theologian lectured on the teachings of Aquinas. In virtue of Aquinas' authority, his teachings were *prima facie* presumed to be probable, but because the audience believed them only in virtue of the authority of the lecturer, they were merely probably probable to the audience. The nested claim of two authorities to probability produced probable probability. The same was the case with probable reasoning on the basis of probable premises. The end product of such reasoning processes

¹¹Cardenas (1670), tom. 1, disp. 15, cap. 1, n. 9.

¹²Lumbier (1684), observatio 5, n. 102; Filguera (1680), propositio 3.

could, at best, be probably probable. Cardenas emphasized that the practice of moral theology required the use of merely probably probable propositions. In no way could reliance on chains of expert judgments be avoided, and the same was true for probabilistic processes of reasoning. Practical reasoning nearly always contained an element of uncertainty beyond its premises. Finally, from the perspective of probabilism, it was difficult to see what was wrong with accepting probably probable opinions.

In light of this defense, probable probability had to be distinguished from slight probability. The former was a legitimate ground of agency, whereas the latter was not. Probably probable reasons were not tenuous, and the equation between probable and slight probability had to be rejected. Slightly probable propositions were rather doubtfully probable. That is, in a typical case of slight probability, competent observers would doubt the probability of a proposition. Some would accept the probability of the proposition and some would deny it. According to Cardenas, it was, indeed, illicit to generally operate on the basis of such propositions. On the whole, Cardenas' defense of probable probability is a good example of the more analytical and differentiating argumentation that became typical for the major scholastic treatises on probability after the 1660s.

Miguel de Elizalde's *De recta doctrina morum* (1670) is the prime example of a theoretically innovative and closely reasoned 'blockbuster' of anti-probabilism – and it contains a remarkable critique of probable probability. Elizalde interpreted probable probability somewhat differently from Cardenas. For Elizalde, probable probability arose from a clash of assessments in which some experts consider a proposition (or position) as probable while others regard it as not probable. This is what Cardenas called doubtfully probable. Elizalde exemplified this case with the controversy on the probability of a single scholar's statement against massive opposition. Some considered a single scholar's opinion as *prima facie* probable, even when in conflict with a 'torrent of others', while others denied its probability (see Chapter 6). On the whole, stand-alone authority was thus only probably probable in Elizalde's eyes and should not be accepted, because it was neither safe to adopt merely probably probable propositions nor were they reasonably assertable.

Elizalde strengthened his claim with a bit of scholastic logic. There was no form of syllogism, the bedrock deductive scheme of Aristotelian logic, that employed probably probable premises. The dialectical syllogism, the only syllogism that took recourse to probable premises, required premises that were

probable, not merely probably probable. In the whole edifice of scholastic thought about the conduct of science (scholastic philosophy of science, so to say), merely probably probable premises had never played a role. What had been accepted was, at best, straightforward probability. This was no mere coincidence. It showed that our intellect was ready to give assent on the basis of solidly probable propositions, but not to propositions whose probability (and thus reasonable assertability) was diluted in some way. With this claim, Elizalde shifted the question of how probably probable propositions ought to be used from agency to belief. The original question had centered on the legitimacy of following slightly or probably probable opinions. Elizalde denied such a legitimacy, of course, but he also opened a new battlefield similar to the one on which probabilists and anti-probabilists fought about the possibility of assenting to less probable propositions. In consequence, he claimed that a properly operating intellect never assented to merely probably probable opinions – a claim that was much more difficult to controvert than a mere denial of use.¹³

Elizalde also used an analogy to things that can be known (*scibilia*) in his campaign against probable probability. Things that can only be known with probability are not truly knowable, because true knowledge implies certainty. In the same way, things whose probability can only be known with probability are not true *probabilia*. Following the analogy with knowable things, things to be known with probability are those whose probability can be ascertained, that is, things that are certainly probable (*certo probabilis*). Elizalde concludes that the intellect never believes (or opines) merely probable '*probabilia*', neither as assumptions, nor in inferences.¹⁴

Such arguments document that anti-probabilists had more ample means than mere invective on which Baron had largely relied to fight against probable probability. In fact, the frontline of this battle did not follow the trench system that separated probabilists from anti-probabilists. Several notable probabilists rejected the legitimacy of acting on merely probably probable premises. They thereby attempted to distance themselves from too permissible forms of probabilism and to prevent an uncontrollable inflation of the space of adoptable opinions. The Jesuit Anthony Terill was one of the

¹³Elizalde (1670), appendix, q. 4: "Utrum opinari possimus probabiliter solum probabilia". The discussion of syllogisms is found in §2.

¹⁴Elizalde (1670), appendix, q. 4, §2: "Ergo intellectus nunquam opinatur solum probabiliter probabilia: non enim assumendo, ut est ostensum; non item inferendo, ut etiam est ostensum: ergo nullo modo, nam alius modus non superest in processo probativo".

probabilists who wanted to impose formal limits on the expansion of the legitimate space of opinions. Terill mentioned probable probability several times in his *Fundamentum theologiae moralis* (1669), but seemingly only in passing. He did not list the distinction between certainly and merely probably probable opinions among the major divisions of probability, and his theory clearly operates with certainly probable (*certo probabilis*) opinions instead of merely probably probable ones. However, since the latter category is often considered to be the converse of the former, probable probability indirectly plays a significant role for Terill's sophisticated probabilism.

One of Terill's key claims was that only certainly probable opinions may be safely followed and assented.¹⁵ Merely probably probable opinions were not really probable in his view. Given the scarcity of references to probable probability in the *Fundamentum*, a work that otherwise analyses its concepts in great detail, it is not immediately clear what the rejection of probable probability precisely entails. The elements of Terill's respective view have to be gleaned from dispersed passages, and it seems that he never referred to slight probability (*tenuiter probabilitas*), which as a category of probability apparently did not exist for him. Probable probability, by contrast, did exist, but failed to satisfy the moral requirements of reasonable adoptability. In question six and partly also in question five of the *Fundamentum*, Terill explains his criteria for the ascription of certain probability in detail. A competent reasoner's unchallenged judgment of probability is *prima facie* certainly probable, and the concurring judgment of three or four competent reasoners renders a proposition extrinsically probable with certainty, even if many others deny its truth (note that there is no denial of probability here). Moreover, Terill defuses the problem that probabilism—and scholastic moral theology in general—depend on chains of authoritative judgments by a distinction between hearsay reports and authoritative judgment. Only if an expert endorses the view of another expert on the basis of his own considerations does his judgment attain extrinsic probability. Yet in this case, unless challenged by other experts, it is certainly extrinsically probable and not merely a probable report of a probable opinion. With such assertions, Terill documented that the 'machine' of probabilism could operate on the basis of certainly ascribable probability.

¹⁵Terill (1669), q. 2, ass. 6, n. 27: "Respondeo veritatem rei non reddi certo probabilem per iudicium viri periti et probi, si ille solum iudicet motiva suadentia rei veritatem esse probabiliter probabilia: quia ex vi talis iudicii motiva illa fortasse non sunt probabilia: ergo ex vi talis iudicii non possum prudenter iudicare rem ipsam esse certo probabilem".

He then added a bold claim to his treatment of certain probability. For some authors, propositions with disputed probability counted as probably probable, but Terill did not resort to this assumption. Instead, he postulated that competent reasoners will not differ in their ascriptions of certain probability.¹⁶ That is, there will be at least near consensus among reasonable judges about which propositions are probable and which ones are not. This for Terill, then, was the bedrock on which moral theology could operate, because certain truth is often not attainable and reasoning must therefore have recourse to probability. The reason for this claimed unanimity is that Terill regarded a judgment of probability as a form of perceptual judgment. For him, it was characteristic of probability that it moved competent and prudent persons to assent. A person could be aware that he or she belonged to the category of competent prudent judges, because membership in this class depended on an observable track record of training, experience, publications, and debate. Such a person was also of course aware of whether she had been moved to assent by a set of reasons. Hence, she should be no more in doubt about her probability judgments than someone who gets a close-up view of a colossal statue on the Capitol in Rome under good conditions of visibility is about her perceptual judgment.¹⁷ Yet what about the objection that persons in fact differ with respect to assessments of probability concerning the same matter? Terill remarks that cases in which many authors consider a given proposition to be probable and a significant number of others take it to be improbable were much rarer than his opponents claimed. In the few such cases, both sides should be assumed to understand the proposition in question differently, so that they were not assessing the same thing.¹⁸ In short, Terill denied the possibility of reasonable disagreement among competent, prudent judges about the probability of a given proposition – a strong claim that might be regarded as an Achilles heel of his approach.

Given Terill's assumption of a consensual identifiability of probability, the space of reasonably eligible opinions can effectively be delimited. When an opinion's justification does not uncontroversially reach a minimum threshold of probability, it is to be rejected. Terill was aware that this claim posed problems for what we would call a system of deontology.¹⁹ Two

¹⁶Terill (1669), q. 2, ass. 6, n. 30, in margin: "Prudentes prudenter judicantes discrepare possunt circa veritatem rei; sed non circa probabilitatem ejusdem".

¹⁷Terill (1669), q. 5, ass. 12, n. 39.

¹⁸Terill (1669), q. 5, ass. 12, n. 40.

¹⁹Terill (1669), q. 2, n. 14.

propositions, one slightly above, one slightly below the threshold of probability, may differ only with respect to a minimal degree of justification. Yet the difference in deontic attitude towards the propositions is enormous: one may not be adopted at all while the other may be safely adopted. (Today, this problem is discussed under the heading of ‘scalar deontology’).²⁰ Terill responded to the problem by pointing out that it was common in law and in ethics. He argued that theft and intemperance were also ascribed on the basis of thresholds, and minor differences in the degree of a misdeed had a huge impact with respect to punishment or the ascription of vice. In effect, Terill asserted that we would have to abandon law and ethics altogether if we were unwilling to link the deontic status of propositions and actions to thresholds.

Terill also realized that deductions from probable premises would not always end up above the threshold of probability. Since probable deductions from probable premises were a typical way to produce merely probably probable propositions, this tells us something about the reasons why he refused to countenance probable probability. Of particular interest in this respect is his use of a statistical urn model to demonstrate why probable premises need not entail a probable conclusion. We tend to think that reasoning on the basis of statistical considerations and with the help of models, such as the throwing of dice or the drawing of lots from an urn, are consequences of the discovery of a modern mathematical calculus of probability. Usually, such examples are only expected from the eighteenth century onward, but this expectation is attributable to the neglect of studies on scholastic probability in the seventeenth century. In fact, various scholastic authors used the paradigms of dice and urns from the 1640s onward (see Chapter 12).²¹ Such modes of reasoning had come into use at the Collegio Romano while Terill was in Rome. It is not entirely surprising, therefore, that he relied on dice and urns in the *Fundamentum*, without any recognizable reference or reliance on the works of Pascal or Huygens.

This is Terill’s statement on non-probable conclusions from two probable premises:²²

²⁰For scalar deontology, see, e.g., Alexander (2008).

²¹See also in this respect the path-breaking work of Sven Knebel, in particular Knebel (2000).

²²Terill (1669), q. 5, ass. 3: “*Consequens ex duabus propositionibus probabilibus rite illatum saepe non est probabile, si aliunde non probetur quam ab illis praemissis.*” He further writes in n. 7: “Do aliud exemplum: Propositae sint centum sortes, quarum una tantum contineat gemmam illi conferendam, in quem sors illa facta fortuita divisione ceciderit. Iam sortes illae promiscue dividantur in duas partes inaequales; hinc ponantur sexaginta, inde quadraginta; & erit probabile sortem bonam latere in majore, non in minore collectione, qui enim frequenter majorem illam

“Third proposition: A conclusion that has correctly been derived from two probable premises is often not probable if it cannot be deduced in other ways without those premises.

I present a further example: Assume there are one hundred tickets in a random draw, the winning ticket bearing a gem. The tickets may arbitrarily (*promiscue*) be separated into two unequal parts; one set consists of sixty tickets, the other of forty. It can reasonably be assumed (*erit probabile*) that the winning ticket (*sors bona*) lies in the larger and not in the smaller set; for he, who more often chooses from the larger set of tickets will usually and unequivocally get the winning ticket more often than someone who chooses from the smaller set. Now the set of sixty tickets is again divided into 40 and 20 tickets, and it can reasonably be assumed that the [winning] ticket which I believe to have been among this set of 60 is now among the set of 40. And thus everybody will choose from the set of 40 tickets and not from the 20, although it is all things considered (*absolute*) not reasonably assumable that the winning ticket is among the last chosen set [of 40], because this ticket will more often not be contained therein. Nevertheless, one can form this syllogism:

The winning ticket, which is among the complete set of one hundred [tickets], is, all things considered, among the set of sixty following a random draw.

However, the winning ticket in the set of sixty is, all things considered, among the set of forty following [an additional] random draw.

Hence, the winning ticket from the set of hundred is, all things considered, in the set of 40.

Note that the conclusion, which correctly follows from two probable premises, is not probable. But surely, the conclusion would be evidently

sortium collectionem eligeret, plerumque & absolute saepius acquireret sortem fortunatam, quam qui minorum sortium numerum eligeret. Rursus dividatur collectio sortium sexaginta in 40 & 20, et erit probabile, quod sors, quam credo latere in collectione illa 60, iam inveniatur in numero 40; atque ita unusquisque 40 sortium collectionem eligeret, non illam 20 cum tamen absolute non sit probabile, quod sors fortunata sit in collectione ultimo loco electa, quia saepius continget talem sortem in illa non reperiri; & tamen formatur syllogismus iste. *Sors fortunata, quae existit in tota collectione centum, facta fortuita divisione, absolute existit in collectione 60; sed sors fortunata existens in collectione sexaginta, facta fortuita divisione sortium absolute existet in hac collectione quadraginta. Ergo sors fortunata existens in collectione centum absolute existit in hac collectione quadraginta.* Ecce consequens, quod rite sequitur ex duabus praemissis probabilibus, non est probabile; certe hoc consequens esset evidenter verum, si praemissae essent evidenter verae, quamvis forma syllogismi in nullo mutaretur”.

true if the premises were evidently true, even though the form of the syllogism remained the same.”

The problem, which Terill thus exemplifies, is known today as the lottery or conjunction paradox.²³ It pertains to probable probability, because a nested chain of predicating probability is mathematically equivalent to a conjunction of probable propositions. In light of modern treatments of the conjunction paradox, we may for the sake of argument assume that a proposition is reasonably assertable, and thus probable in Terill’s sense, above a threshold $t^* = 0.9$ of justification (or however else the metric is operationalized). A proposition with a probability that is only probably known (and is therefore *probabiliter probabilis*) may thus have a justification of as low as $t = 0.9 \cdot 0.9 = 0.81$. Since $t < t^*$, such a proposition would not be fully probable and hence not be reasonably assertable. This shows that Terill began developing a *mathematical* understanding of the insufficiency of mere probable probability on the basis of an urn model.

He also realized, but was certainly not the first scholastic author to do so, that an Aristotelian deductive logic with probable premises was not deductively closed.²⁴ That is, logical deductions on the basis of reasonably assertable propositions in the scholastic sense did not necessarily lead to reasonably assertable conclusions. In consequence, standard deductive processes of truth-preserving or truth-conveying reasoning fail to turn out trustworthy results if equipped with premises that are merely probable in the scholastic sense.²⁵

It should be added that the dispersed remarks of the *Fundamentum* were not Terill’s final words on probable probability. His *Regula morum* (1678)

²³See Wheeler (2007). Today, giving rise to the lottery paradox is considered one of the main problems of the so-called Lockean Thesis. The Lockean Thesis claims that rational persons can fully believe propositions whose probability exceeds a certain threshold of probability (see Huber and Schmidt-Petri 2009:9). Terill’s analysis shows that the shortcomings of the Lockean Thesis were already known to scholastics even before Locke had begun to work on his epistemology.

²⁴The deductive non-closure of probability ascriptions was fairly well known to Baroque scholastics. Only in Terill have I found a lottery model. Caramuel (1676), fund. 11, n. 478-494 mentions a variety of fallacies that are related to the preface paradox.

²⁵The related question whether non-quantitative concepts of probability (such as the scholastic) ought to be abandoned because of the lottery paradox is too complex to be discussed here. However, it should be noted that some modern authors defend the retention of non-quantitative concepts of degrees of belief (i.e. probability) in practical matters of, for instance, jurisprudence. See Maher (1993), Chap. 7; Vogel 1990); or Kusch (2002: pp. 78), who mentions (approvingly) a British court ruling from 1995/1996, which prohibits the use of quantitative (Bayesian) degrees of belief in certain areas of law.

contains a sustained critique of Elizalde's *De recta doctrina morum*, and one question deals explicitly with a rebuttal of Elizalde's arguments against the existence of probably probable beliefs.²⁶ Terill maintained that it makes sense to speak of a person's merely probably probable beliefs or opinions, e.g. in cases of hearsay reports of authoritative judgments or probable deductions from probable premises. If a person, without knowing any of the propositions, believes a theologian, who claims that all propositions in a book are probable, the person only has a probably probable belief with respect to the truth of any of the propositions in the book. After all, the person in question only has a probable belief in the veracity of the theologian. In the case of logical deduction, a person might not be certain but only probably believe in the correctness of a particular deductive scheme (a syllogistic form). If the syllogistic form operates with merely probable premises, that is, if it is a dialectical syllogism, the conclusion will only be believed with probable probability. Terill thereby showed that we sometimes hold probably probable opinions or believe that certain propositions are probably probable. However, he insisted that moral decisions need to be based on at least certainly probable propositions. In this respect, he concurred with Elizalde, but he did so—and took pains to emphasize it—for completely different reasons.

The efforts of Elizalde and Terill did not bring the debate on probable probability to a close. It continued well into the eighteenth century. Anti-probabilists typically used the widespread opposition against the use of slightly or probably probable opinions to bash probabilism as such. According to Ignacio de Camargo, for instance, a diehard anti-probabilist and pupil of Tirso Gonzalez, no clear distinction could be made between smaller probability (*minus probabilitas*) and slight probability (*tenuiter probabilitas*).²⁷ It was therefore impossible to build a dam against the acceptance of slightly probable propositions without abandoning the permission to follow less probable ones. As we have seen, the use of only slightly probable propositions had been explicitly condemned by Innocent XI. Camargo interpreted this as an implicit condemnation of probabilism because of the inseparability he postulated. Hardly surprising, probabilists did not agree. Richard Arsdekin, like Camargo a Jesuit, compared the papal prohibition with a father's order to his child to not play at the edge of a river's quay wall.²⁸ It did not follow,

²⁶Terill (1678), q. 32: "Utrum probabilitas probabiliter cognosci possit".

²⁷Camargo (1702), pars 1, lib. 2, contr. 2, art. 1, n. 13 and art. 2, §2.

²⁸Arsdekin (1686), tom. 2, pars 2, tract. 1, cap. 2, p. 46.

as Arsdekin emphasized, that the child was generally prohibited from playing on the banks of the river. In a similar way, the prohibition of following slightly probable opinions did not infringe moderate forms of probabilism according to Arsdekin.

To judge by the resilience of probabilism in the eighteenth century, the anti-probabilist critique left many moral theologians unconvinced. In an influential textbook of moral theology, the Jesuit Claude Lacroix responded to Camargo's critique and defended a moderate probabilist position, discussing the issues of slight and probable probability at some length.²⁹ Lacroix's book was printed in the Rhineland and profited from the good standing of probabilism in many German Catholic principalities until the prohibition of the Jesuit Order. First, Lacroix discussed Innocent XI's prohibition of the use of merely slightly probable propositions. He argued that this prohibition did not hold in all cases, because in grave necessity, when the safer opinion was not practicable, one might even resort to a slightly probable opinion.³⁰ However, Lacroix did not offer an example for such a case. For the rest, he accepted the prohibition and added that it was also illicit to use doubtfully probable opinions. The use of probably probable opinions was easier to defend, and Lacroix, in fact, quotes several defenders. Some reasons for the acceptance of probable probability appeared quite convincing to him.³¹ To say that a proposition was probably probable was tantamount to reasonably regarding it as being supported by weighty reasons. This, for instance, is the case of an unlearned person who asks a theologian whether an action is licit. The unlearned person's judgment that a course of action is licit because a theologian considers it to be probably licit, is only probably probable. The person relies on a probable judgment with respect to the theologian's competence. If the theologian's opinion is probable, the unlearned person's judgment is at best probably probable. Yet confessional practice relied on such indirect judgments and their permissibility. Hence, reliance on merely probably probable opinions must at least sometimes be permissible. Moreover, if an opinion was considered probable, it need not be subject to doubt (i.e. a suspension of judgment), and assent to it was therefore justified. It follows that assent to the probability of a probably probable opinion is justified. We are therefore entitled to treat it as a probable opinion.

²⁹Lacroix (1707), q. 21, n. 125, 126; q. 45 and q. 46 on *tenuiter* and *probabiliter probabilis*.

³⁰Lacroix (1707) q. 45, §1, n. 366.

³¹For the following argument, see Lacroix (1707), q. 46.

In this case, we are also entitled to assent to it in the same way as we can assent to a certainly probable opinion. Finally, moral practice would become impossible if we were always required to inquire whether an opinion was certainly or only probably probable.

This basket of arguments convinced Lacroix that a position which favored the use of probably probable opinions was at least probable. He nevertheless professed to prefer the more restrictive position of only using certainly probable opinions to avoid the risk of mistakenly following slightly or doubtfully probable opinions. However, such a balancing act seems problematic, because as a probabilist, Lacroix knew that probably probable propositions could legitimately be employed if he declared their use as probable, even if he preferred to adopt a more conservative stance. This final distancing from his own analysis thus might appear strategic, allowing him to remain under the guise of a mainstream position, while in fact condoning a more daring view. Anti-probabilists regarded such maneuvers as a ruse, but it was difficult to prove that Lacroix was insincere in his judgment. This was precisely one of the advantages of probabilism: it often remained unclear whether an author favored a position he declared to be less probable, or whether he simply recognized it as part of a plurality of opinions. In times when deviance often engendered dire consequences, such ambiguity could certainly be helpful.

As with many intricate epistemological issues in the probabilism debate, contrary positions were tenaciously defended and no agreement was reached with respect to the use of probably probable opinions. However, in the eighteenth century, this issue became marginal due to a shift of focus in the probabilism debate. When the debate on probabilism flared up again in Italy in the 1740s, the issue of slight or probable probability seems to have had lost its prominence. It does not play a major role in Daniele Concina's massive attack on probabilism, for instance. The issue would have forced Concina to distinguish between radical and moderate probabilists in ways that would not have suited his agenda. It would have been impossible, for example, to group Terill together with Caramuel as arch-laxists. Presumably, Concina refrained from highlighting the debate on probable probability for such reasons.

2. *An argument of infinite regress*

In the debate on the use of probable probability, or the intellect's ability to assent to it, an infinite regress argument played a significant role. This argument deserves a short discussion, not least because it closely resembles an argument by David Hume and connects the scholastic debate to issues of skepticism. Hume wrote large parts of his *Treatise on Human Nature* in La Flèche, where Descartes had been educated in the local Jesuit College, the leading one in France. Hume therefore had easy access to Jesuit writings, and it is conspicuous how closely his infinite regress argument resembles earlier Jesuit arguments. However, no knowledge of Jesuit precedent is documented in Hume's papers, of which there are only very few from his La Flèche period.³²

Hume developed an argument of infinite regress with respect to probability in his discussion of skepticism and the uncertainty of judgment in the *Treatise on Human Nature*. Since we often have to resort to probability in our reasoning, we should ask how much confidence our probable reasoning deserves. This 'reflex act of the mind', as Hume called it, using scholastic terminology, will only produce probable confidence. It thereby dilutes the initial probability of our judgment, a process that apparently continues infinitely.³³ Accepting iterated 'reflex' judgments of probability was therefore a highway to skepticism. Whether Hume actually found this line of argumentation in Jesuit writings during his stay at La Flèche from 1735 to 1737 is difficult to tell. In any case, considerations of infinite regress had been developed by anti-probabilists to undermine assent to merely probable probability. The earliest such argument of which I am aware was made by Prospero Fagnani, who demanded in his *Ius Canonicum* of 1661 that a person must be certain about the probability of a probable proposition to which she is assenting. Otherwise, an opinion about an opinion or a probability of probability would arise, with an ensuing infinite regress.³⁴

³²See Harris (2015: pp. 80); Perinetti (2018).

³³Hume (2005), book 1, part 4, sec. 1: "No finite object can subsist under a decrease repeated IN INFINITUM;

and even the vastest quantity, which can enter into human imagination, must in this manner be reduced to

nothing. Let our first belief be never so strong, it must infallibly perish by passing through so many new

examinations, of which each diminishes somewhat of its force and vigour".

³⁴Fagnani (1765), n. 130: "Idque fatentur vel ipsi defensores probabilitatum, ut apud Sanchez in Decalog. Lib. 1, c. 9. 18 in fine, dum asserrunt, ad hoc, ut liceat sequi opiniem probabilem,

“This is claimed even by the defenders of probabilism, as in Sanchez *In Decalogum* (lib. 1, c. 9, n. 18 towards the end), when they, ad hoc, assert that as a prerequisite for licitly following a probable opinion, it must be wholly certain to be probable. Otherwise, if an opinionative judgment of its probability would suffice, an opinion about an opinion would arise, and a probability of probability, and this would create a progression to the infinite.”

In fact, the demand for certainty with respect to judgments of probability was even acknowledged by defenders of probabilism, such as Tomás Sanchez. In the passage that Fagnani quoted from Sanchez, the latter demands certainty regarding the probability of a guideline of moral action, but does not mention any progression to infinity. The infinity claim therefore seems to have been introduced by Fagnani, who, however, did not pursue it in any depth.

Miguel de Elizalde went much further in this respect. In his *De recta doctrina morum* (1670), he points out that our reflective powers ascend to infinity. We can always add a loop and reflect on a reflection. However, when passing judgment, this reflective chain needs to terminate at some point and be grounded in some definite cognition or manifest probability. From this, according to Elizalde, it follows that we never give assent to probable probabilities. A probable probability is like saying ‘It seems to me that it seems’. Nobody speaks like this, and moreover, doing so would give rise to an infinite regress. A person who assumes a probability with probability and states ‘It seems to me that it seems’ cannot even believe this with certainty, but only as probably probable. What the person asserts only seems to be the case for her, and hence a third ‘It seems to me’ becomes necessary, and then a fourth ‘It seems to me’, and so on without end.³⁵

Elizalde thus operates under the assumption that a not fully certain cognition of probability will be uncertain on all levels of reflection. Hume

necessario requiri, ut omnino certum sit eam probabilem esse; alioqui, si sufficeret iudicium opinativum de probabilitate illius, daretur opinio opinionis, & probabilitas probabilitatis, & fieret processus in infinitum”.

³⁵Elizalde (1670: 256), appendix, q. 4, §3: “Imo vero nec praedicta oratione satis ille opinionem suam posset explicare, sed deberet sine fine dicere, *mihi videri, mihi videri* etc. Idcirco quippe opinans circa probabiliter probabile, simpliciter, & unica oratione dicere non potest *hoc mihi videtur*, quia id nobis proponitur non tamquam absolute & simpliciter probabile, sed cum addito, scilicet probabiliter probabile ... sed etiam ipsa probabilitas probabilitatis proponitur non ut certa & manifesta (unde enim) sed ut probabiliter probabilis: ergo necessarium est tertium *mihi videri*, & quartum alius *mihi videri*, & sic sine fine”.

relies on a similar assumption in constructing an infinite hierarchy of nested probability judgments. But note that Elizalde would not have accepted Hume's argument. Elizalde argues that we can conceive of probability with certainty, much as we can and are, in fact, usually certain that something seems to be so-and-so to us. Problems only arise if we leave the domain of this certainty. For Hume, this defense could hardly work, especially if a numerical measure of probability was presupposed. Under this premise, it is unlikely that a probability judgment can be made with absolute certainty, that is, with a numerical value of one. Therefore, the hierarchy of confidence with a value smaller than one engenders an infinite chain of multipliers smaller than one, which in its limit produces an overall probability of zero.³⁶ By contrast, in a scholastic framework, in which certainty is a non-numerical category, the argument of infinite regress fails to undermine probability as such, if probability can be ascribed at one of the scholastic standard levels of certainty (mathematical, physical, or moral).

This, at least, was Elizalde's view. His nemesis Terill denied that any regress inevitably follows from the assumption of probable probability. The 'It seems to me' of probable probability refers to an object, which is taken to be a probable proposition.³⁷ It is therefore, at best, tantamount to saying 'It seems to me that x is probable'. This is a perfectly legitimate sentence which can be assumed with certainty. That is, a person can be certain that it seems to her that something is probable, and this certainty halts ascent to further levels of reflective uncertainty. The difference to Elizalde's own use of certainty with respect to the ascription of probability is thus that Terill assumes this option to be available not only at the ground level of consideration, but on all higher levels of reflection. For this reason, no infinite regress must ensue if probable probability is asserted. Lacroix, who also discussed these issues in some detail, agreed that this simple answer solves the problem of infinite regress for probable probability.³⁸

³⁶This is not to say that Hume's argument poses a real problem for numerical probability. If confidence is correctly modelled with a probability density function and the probability in which confidence is placed equals the mean of this function, no regress to zero occurs. This is because on each level of reflection, the mean of the confidence function will equal the mean of the confidence function on the level below that. Hume's argument only succeeds for a stage of probabilistic reasoning, which is already post-scholastic but not yet fully developed to the extent of using probability density functions for subjective expectations.

³⁷Terill (1678), q. 32, n. 14.

³⁸Lacroix (1707), lib. 1, tract. 1, cap. 2, dub. 2, q. 21, n. 132: "Illa probabilitas opinionis probabilis vel cognoscitur certo vel tantum probabiliter; si certo, erit certo probabilis; si tantum probabiliter, dabitur processus ad infinitum, ita Elizalde. Respondeo: Iudicium directum circa probabilitatem

Probabilists thus did not believe that they had much to fear from the argument of infinite regress. In the eyes of anti-probabilists, however, it reduced radical forms of probabilism—which defended the use of probably probable opinions—to skepticism because it dissolved the epistemic grounds of holding such opinions. Hume, of course, also drew skeptical conclusions from the argument of infinite regress, and we will therefore briefly look at a widespread anti-probabilist allegation, namely that probabilism or its radical variants were forms of skepticism.

3. The spectre of skepticism

References to skepticism in textbooks of moral theology were scarce before the second half of the seventeenth century, when they became a regular feature in the great debate on probabilism. The most referred to school of skepticism in this context was the Academic one, as was generally the case in most scholastic allusions to skepticism. Together with Pyrrhonism, Academic skepticism had been one of the two great ancient schools of skepticism. Scholastic references to Pyrrhonian or Academic skepticism are of historical interest because the renaissance of ancient skepticism has been identified as one of the driving forces of modern thought.³⁹ Some scholars even postulate a ‘skeptical crisis’, which drove frightened thinkers from Descartes to Kant to embark on a quest for absolute certainty. Today, a veritable academic industry deals with skepticism in the early modern era, and its results by now have slightly tempered early, strong claims about the crisis that skeptical modes of thinking engendered. In fact, the existence of a skeptical crisis in early modernity is quite controversial, not least because Catholic orthodoxy did apparently not perceive skepticism as much of a threat. One of the reasons for this lack of fear with respect to a skeptical challenge was probably the existence of an extensive scholastic tradition of dealing with uncertainty in many fields of inquiry and conduct. In the present book, we are only able to inspect a small segment of this much larger field. Since scholasticism offered a rich collection of principles and rules for the management of uncertainty,

opinionis erit tantum probabile, habebō tamen aut habere potero simul iudicium reflexum, quo certo cognoscam illud iudicium probabile existere in meo intellectu ac niti motivo probabili tantum, in quo iudicio sistam”.

³⁹See Floridi (2002); Popkin (2003); Schmitt (1972); Spoerhase, Werle and Wild (2009).

skepticism was not perceived as a great threat by most scholastics. For this reason, the renaissance of skepticism in European thought should be assessed in conjunction with the unfolding of scholastic considerations concerning the management of uncertainty, as I have argued elsewhere.⁴⁰ As is well known, Descartes owed at least as much to medieval scholastic skepticism as to ancient precedent.⁴¹ But even with respect to the renaissance of ancient skepticism, scholastic influences mattered. If we look back to the fifteenth century, the disconcerting effects of the Great Western Schism, during which a divided hierarchy of the Church could obviously not be relied on as a warrantor of truth, can be identified as sparking a renewed interest in ancient skepticism as well as scholastic ways of moral decision making under uncertainty.⁴² For both trends, the City of Florence became an important hub in the persons of Ambrogio Traversari, Girolamo Savonarola and Gianfrancesco Pico della Mirandola for skepticism, and Archbishop Antonino for moral decision making.⁴³ Yet even elsewhere, moderate skepticism was not generally seen as antagonistic to proper Christian reasoning, insofar as it emphasized the importance of probable reasoning and avoided the pitfalls of erroneous claims of certainty. In particular, stubborn opinionatedness and excessive trust in one's own opinions was not considered a Catholic virtue. As a result, the burgeoning moderate or 'circumcised' (François de La Mothe le Vayer) Christian skepticism of the early modern era was less shocking to contemporaries than historians of ideas once claimed.⁴⁴

However, the great debate on probabilism in the seventeenth century began to change this prior *modus vivendi*. Anti-probabilists portrayed their probabilist opponents as Academic skeptics, and thus underhand as heathens despite themselves who undermined the intellectual foundations of Christianity. This accusation rapidly attained a high profile in the hands of Pierre Nicole, who launched it (under the pseudonym Wendrock) in his widely read notes to Pascal's *Provincial Letters*. Augustine had quoted the Academic skeptics, Nicole pointed out, as declaring 'Whoever does what seems probable to him, neither sins nor errs'. This was also the Jesuit's

⁴⁰Schuessler (2006a); Schuessler (2009b).

⁴¹Bermudez (2000); Broughton (2002); Perler (2003).

⁴²I have discussed this background with respect to the theologian Jean Gerson in Schuessler (2009b).

⁴³See Floridi (2002) on skepticism and Howard (1995); Orlandi (1959); Schuessler (2010) on Antonino of Florence.

⁴⁴On La Mothe le Vayer and skepticism as incompatible with good Christian conduct, see Pintard (1983).

doctrine, quipped Nicole. And what else had Augustine said about it? He had demonstrated that once this was approved, all crimes were approved.⁴⁵ Thus, key representatives of seventeenth-century Augustinianism began to focus on Augustine's arguments against Academic skeptics, because this appeared as an apt strategy to combat Jesuitism and probabilism. Moreover, this strategy was not peculiar to Jansenists, such as Nicole, but was soon more broadly adopted by anti-probabilists. The Carmelitan monk Antonio Marinari discussed Augustine's views on probable opinions at some length in his *Opusculum de opinione probabili* (1666).⁴⁶ In the respective chapter, he implicated probabilism as a doctrine which proclaims that following any opinion that appears probable to the agent wards off sin. This was, of course, the view that Augustine had ascribed to the Academic skeptics and earmarked as a highway to sin. The same point was later made by Tirso Gonzalez, the anti-probabilist Superior General of the Jesuit Order. Gonzalez drew a parallel between the probabilist view that something was not sinful if its permissibility was probable, and the Academic skeptical stance reproved by Augustine.⁴⁷ Finally, in the eighteenth century, Daniele Concina was not content with accusing probabilists of falling prey to unacceptable views of the Academic skeptics, but equated probabilism with skepticism at large, including its Pyrrhonian variant. The probabilism of casuists was almost the same, according to Concina, as the probabilism of the skeptics and Pyrrhonians.⁴⁸ On the whole, parallels to Pyrrhonian skepticism were not as prominent as those to Academic skepticism in the debate on probabilism, but Concina's reference to them is not singular.

Probabilists, of course, rejected a comparison with Academic skeptical thought, which pitted them against the authority of Augustine. In their defenses, they mostly insisted on distinguishing the Academic skeptical notion of probability from the 'theological' notion of probability, which they used. Honoré Fabri, who under the pseudonym Stubrock responded to Nicole's (aka Wendrock) challenge, explained that the Jesuits did not agree

⁴⁵Nicole (1658), ep. 5, not. 1, sec. 3. §6: "Horum sententia, ut testatur Augustinus lib. 3 contra Academ. cap. 16 'Cum agit quisque quod ei probabile videtur, non peccat nec errat'. Haec ipsissima est Jesuitarum doctrina. Quid ergo ad eam Augustinus? Ostendit hac semel probata, omnia crimina probari".

⁴⁶Marinari (1666), cap. 17: "Quid sentiat Augustinus de opinione probabili".

⁴⁷Gonzalez (1694), diss. 12, §5: "Ille modus discurrendi: 'Probabile, seu verisimile, est, hoc non esse peccatum, ergo non est peccatum: Probabile est esse licitum, ergo est licitum', videtur esse ille modus quem S. Augustinus in Philosophis Academicis reprobatur".

⁴⁸Concina (1751), lib. 3, diss. 1, cap. 1, n. 5: "Proximas itaque, immo idem fere est Probabilismus Scepticorum & Pyrrhonorum, ac Probabilismus Casuistarum".

with the Academic skeptics as regards their understanding of probability.⁴⁹ Martín de Esparza criticized Marinari's 'argument from Academism' against probabilism in some detail.⁵⁰ The main point of such defenses was that the notion of probability in use in moral theology, and in theology in general, did not conform to the Academic skeptical one.⁵¹ Whereas the latter relied on the mere appearance of verisimilitude, theological probability required solid reasons for truth (or extrinsic warrants for them), on which a reasonable person could base her assent. Probability and verisimilitude were, of course, often used synonymously, especially in the field of rhetoric or in humanist texts. In seventeenth-century moral theology, however, probability and verisimilitude were often explicitly distinguished from one another. It would be interesting to have a systematic overview of this development, because avant-garde philosophers sometimes preferred the term verisimilitude to probability, which they saw as having been tainted by the scholastic tradition. Leibniz is an example in point.⁵² On the scholastic side, however, the probabilist Carlo Casnedi (1643–1725) reminded his readers that probability implied verisimilitude, but not vice versa.⁵³ Verisimilitude was merely an appearance of truth. Probability implied such an appearance, but not every appearance of truth guaranteed solid probability, particularly not if the latter was linked to reasonable assertability. Against this background, scholastic moral theologians argued that their probabilism was very different from that of the ancient Academic skeptics. However, Claude Lacroix admitted that a comparison with the probabilism of the Academic skeptics could only be warded off if the use of probable opinions remained restricted to certainly probable ones.⁵⁴ This shows how the debate on slight and probable probability was connected to allegations of skepticism. To effectively ward off these allegations, it was necessary to distance oneself from the use of slightly or probably probable opinions.

⁴⁹See Fabri (1659), *Notae in notas*, ep. 5, sec. 3, §6: "Hic enim Jesuitas comparas cum Academicis. Sed ex supra dictis, ea, quae dicis, facile refutantur".

⁵⁰Esparza (1669), appendix, art. 68-71.

⁵¹See Esparza (1669), appendix, art. 72-79.

⁵²Leibniz (1996), book 4, Chap. 2, §14.

⁵³Casnedi (1711), d. 1, n. 71; d. 4, n. 70: "non autem asserantis omne verosimile esse probabile".

⁵⁴Lacroix (1707), lib. 1, tract. 1, cap. 2, dub. 2, q. 50, n. 388: "Academici dicebant non esse opus ullum iudicium formare, sed satis esse hoc agere, ad quod agendum incitarent sensus vel objecta menti proposita, & hos confutat S. Aug. [...] nos ad prudenter agendum praerequirimus iudicium certum de probabilitate opinionis & praeterea ultimum iudicium practicum absolute enuncians hoc vel illud esse licitum".

It would require a more extensive investigation of references to ancient schools of skepticism in the probabilism debate than can be supplied here to find out whether they triggered a ‘skeptical crisis’, or at least a skepticism scare, in late seventeenth-century Catholicism. The outlined claims and arguments at least indicate that skepticism might have become a scare by implication. Probabilism became a *bête noire* to many conservative Catholic theologians, who aligned this doctrine with Academic skepticism and occasionally even with Pyrrhonism. The image of ancient skepticism, which had not always been pitch black in the scholastic tradition, could only have suffered from this association. It is important to note, however, that the Catholic reaction towards ancient skepticism was not monolithic. Catholicism had always been fractional despite the Pope’s role as final arbiter of theological debate. Anti-probabilist accusations with respect to skepticism should therefore not be mistaken as ‘the’ Catholic reaction. Nevertheless, it is significant that the respective attacks signaled a certain amount of fear of Academic skepticism.

4. Caramuel and probable probability

Juan Caramuel y Lobkowitz is the only Baroque scholastic whose probabilism has become a (minor) focus of recent historical interest, and we will also duly take a closer look at him (in combination with Chapters 6 and 12). Interest in Caramuel has been nourished by his well-deserved reputation of being a flamboyant ‘Baroque’ polymath in the style of Athanasius Kircher, himself a focus of renewed interest today, and Leibniz.⁵⁵ Caramuel wrote prolifically on mathematics, cryptography, semiotics, architecture, politics, moral theology, probabilism, and many other subjects.

He was born in Madrid in 1606 to a father from Luxembourg and a mother from the great Bohemian noble family of Lobkowitz. The precocious boy soon excelled and was deemed a child prodigy, showing interest in a wide variety of intellectual pursuits. Later, he received a comprehensive education at the universities of Alcalá and Salamanca, where he studied with some leading Spanish scholastics. After graduating from Alcalá, he became a

⁵⁵For Caramuel in various respects, see Dvorák (2008); Lombraña (1989); Pastine (1975). For Caramuel’s probabilism, see Fleming (2006).

member of the Cistercian Order. His scholastic training, which he often remembered proudly, provided the intellectual axis for his roaming talent. In 1632, Caramuel went to Louvain for his doctoral studies, where he engaged in controversies with Jansenist sympathizers and developed his life-long allegiance to probabilism. In 1644, he became the abbot of the monastery of Disibodenberg near Mainz (Germany), which had by then practically ceased to exist due to the still ongoing Thirty Years War. Three years later, he moved to Prague, where he helped defend the city during one of the last major campaigns of the war. Caramuel wrote a diary of his wartime years, which gives an impressive account of the horrors of the Thirty Years War, including his own hands-on combat experience, which earned him a badge of honor for exceptional courage. In Prague, Caramuel became one of the luminaries of contemporary Bohemian intellectual life (together with another Spanish scholastic, Rodrigo de Arriaga). His intellectual caliber left an impression on the Austrian court, whose cause Caramuel supported with an essay on peace, advocating tolerance and peaceful co-existence of the confessions. Unfortunately, this intervention seriously strained his friendship with Fabio Chigi, then chief peace negotiator of the Vatican in Westphalia. Chigi soon became Pope Alexander VII, and did not support Caramuel's career interests as he could have. On the other hand, it is not entirely clear whether meddling in the Westphalian negotiations was the reason for Chigi's reticence or whether Caramuel's permissive brand of probabilism had generally established him as a dangerously eccentric, loose Catholic canon, his impeccable credentials as a Counter-Reformation frontline fighter notwithstanding. Caramuel's rather open sympathies for Galilei and Copernicanism cannot have helped his cause, and the same is probably true for his close involvement in the *Accademia degli Investiganti* in Naples, one of the great scientifically progressive academies in Italy. Caramuel left Prague when Chigi became Pope in 1655, in the hope of a career in the curia, but was sidetracked to an unimportant bishopric in Campania in 1659, which did not stop him from getting involved in intellectual debates in Naples. In 1673, he was finally moved to the equally unimportant bishopric of Vigevano in Northern Italy, where he worked on his books until he died in 1682.

Caramuel's prestige among his contemporaries rested almost entirely on his writings and his networking in the European Republic of Letters. In fact, Caramuel was one of the few scholastics of his epoch that had a notable international reputation among the non-scholastic scientific and literary

avant-garde. Caramuel exchanged letters with Gassendi, sought contact with Descartes, was part of the *Investiganti*, and apparently considered himself a contributing member of this avant-garde, as much as a contributor to the tradition of Spanish scholasticism. His eclecticism, which also enabled him to mix Thomist, Scotist, and nominalist elements of scholasticism, included elements of the new science, humanism, Baroque literature and art theory, and a whiff of kabbala. The immense breadth of his interests and reading, or at least what he made of it, did not impress all observers. There are signs that more than a few avant-garde scientists and as many sober scholastics considered Caramuel as a bit too flamboyant and superficial.

This is not the place to take an in-depth look at such assessments. It is also not advisable to go through Caramuel's vast set of writings piece by piece (226 according to one account), because too much would have to be said (from more angles than a modern scholar alone can cover) about his always peculiar approach to a given subject. For us, only Caramuel's work on the mathematics of probability and his moral theology (including probabilism) are immediately important. With respect to the former, his *Mathesis biceps* (1670) contains the broadest discussion of the new probability calculus published in the seventeenth century (and apparently, the first system of binary numbers ever published). We will discuss Caramuel's forays into mathematical probability in Chapter 12. As for his probabilism, it was first presented in *In Benedicti regulam* (1640) and further developed in the important and controversial *Theologia Moralis Fundamentalis* (1652). Caramuel had to tone down some claims in subsequent editions (e.g. the 1657 edition), and then began to set some new accents in his *Apologia contra Fagnani* (1663), which quickly was placed on the index of prohibited books. The final statement of Caramuel's views on probabilism and related matters of moral decision-making under uncertainty are to be found in *Dialexis de non-certitudine* (1675). Julia Fleming has studied the evolution of Caramuel's probabilism in detail, which allows me to focus on a few points that are of particular interest for the present investigation.⁵⁶

Suffice it to say in advance that Caramuel's approach to probabilism and moral uncertainty was highly peculiar and provocative. This is not meant as a pejorative quip, but it would be a grave mistake to regard him as representative of the probabilism mainstream after 1650. Caramuel had few

⁵⁶See Fleming (2006).

followers outside his Cistercian Order.⁵⁷ Probabilists and anti-probabilists alike took exception at his definitions of probability, his interpretation of the principles for choosing opinions, and his daring moral judgments. No wonder that Caramuel earned himself the title ‘prince of laxists’ (by Alfonso de Liguori). If John Sinnigh’s claim that some probabilists came close to libertinage has some kernel of truth, Caramuel surely exemplifies it.⁵⁸

We will primarily focus on the *Dialexis de non-certitudine* here, Caramuel’s boldest work on probabilism. It was certainly not his best-known book among contemporary scholastic colleagues, but arguably his philosophically most interesting one.⁵⁹ ‘Dialexis’, as Caramuel informs his readers, is a word that heralds a dialectical disputation. Reference to non-certainty, on the other hand, requires further explanation. Caramuel’s readers would have expected a reference to probability or probable opinions, but it is one of his major points that this would be imprecise. The key message of the book is that ‘probable opinions’ is the wrong answer to the question which opinions may be licitly followed. It is, of course, also licit to follow certainly true opinions, and in scholastic terminology, probable truth and certain truth exclude each other. This is a trivial point, but Caramuel’s claim is much less obvious. In fact, Caramuel professes that it is *prima facie* licit to follow any opinion whose negation is not certainly true. Hence, the reference to non-certainty in the title of the book is to be understood with reference to the not certain truth of a negation or counter-opinion.

The underlying point is subtle and has interesting implications. Remember that the principles of a non-binding dubitable law and the better position of a possessor were pillars of probabilism. Caramuel interpreted doubt in the extensive sense it has in murder trials today. Hence, any reasonable doubt about its validity could de-validate a moral obligation or law, and any reasonable conjecture that an individual was the possessor of its freedom of choice instantiated the principle of better possession. For their justification, restrictions relied on the negation of the freely adopted opinion of an individual, and therefore, the non-certainty of such a negation was, indeed, the crucial issue from Caramuel’s perspective. Facing non-certain restrictions, both key principles of probabilism guaranteed an extensive freedom of choice. Caramuel thus wrote an apotheosis of free choice in which

⁵⁷See Fuentes (1699), a Cistercian, and Torrecilla (1696), a Capucin.

⁵⁸Sinnigh (1665), lib. 1, cap. 94, §353. Sinnigh referred first to Tamburini and later to Caramuel and Diana. The Jesuit Bauny was also accused of libertinage, see Petrocchi (1953: 59).

⁵⁹Tutino (2018: 220) also regards *Dialexis* as the apex of Caramuel’s intellectual endeavors.

negative freedom (that is, freedom from bondage or obligation) in a broad sense emerges as the core of his probabilism.

This diagnosis is corroborated by his treatment of the Possessor Principle, which underpins a human being's *prima facie* possession of her freedom to do everything that is not prohibited by certainly valid laws. God, of course, could obligate human beings, but he had to do so by laws whose validity could not be reasonably doubted. Note that Immanuel Kant also required certainty for obligation. The need to attain certainty for moral laws led Kant to develop an aprioristic approach to morality, which in Kant's eyes established what scholastics called metaphysical certainty in ethics. Caramuel was content with less. For him, moral certainty, that is, practically indubitable truth, sufficed to render an obligation binding. An example of a morally certain proposition would be that in a city of a million inhabitants, there will exist at least one thief.⁶⁰

True to his habits, Caramuel dispersed the key claims of the *Dialexis* over a complicated and repetitive text structure. In a long preparative part (*prodromus*), he introduces concepts, distinctions and the Possessor Principle, which are central to his argument. In the following dialectical disputation (the *dialexis* proper), he justifies his probabilism of non-certainty. Finally, he discusses the arguments and requests of two reviewers from his order, to whom he had sent his book for approval, and for comments and objections (this part of the work is called *syndromus*). At first glance, this seems to be a neat structure, but Caramuel discusses interrelated issues in all three parts of the book.

Actually, Caramuel's *modus operandi* renders it difficult to answer the obvious question emerging from his claims: Does the *Dialexis* state something significantly new, or is it only an exercise in altered wording that adds nothing to the options of Caramuelian probabilism, which had already been outlined in the *Theologia moralis fundamentalis* or the *Apologema*? Caramuel himself assured his readers (and the Inquisition) that he did not teach any novelties, let alone daring ones, in the *Dialexis*. This should, of course, not be accepted at face value. Yet in my opinion, Caramuel's statement is honest and true. In a theologically relevant sense, there is not much in the *Dialexis* that did not

⁶⁰For other scholastics, the proposition that Rome exists, although they had never been there, would also be morally certain. But Caramuel considered such propositions that were based on testimony of observation as naturally or physically certain. See Caramuel (1675), *prodromus*, n. 340 on the certainty that Constantinople exists, and Caramuel (1652), *fund.* 10: "De sensibilibus experimentorum certitudine".

already follow from his earlier writings. However, the *Dialexis* is pervaded by a new spirit.

In the preparatory *prodromus*, Carmuel justifies the choice of less probable opinions with reference to games of luck. He offers the example of a Genuese lottery and concludes that in such cases, prudence calls for a choice of opinions with more utility (*utiliores*), not those with more probability (*probabiliores*). In the index of the book, Caramuel aptly summarizes this claim, stating that in games and competitions, it is preferable to adopt a less probable proposition if a greater expectation of gain compensates the implied amount of risk.⁶¹ This is a striking example of how the nascent modern calculus of probability and the standards of expected outcome value were used by a scholastic author to justify probabilism. This line of argumentation was of course particularly attractive for Caramuel, whose *Mathesis biceps* (1670) contained not only the first scholastic analysis of Huygens' calculus of probability, but also its first broader application in general. Moreover, it is probably no mere coincidence that Carmuel's analysis of probabilism increasingly bears the stamp of his extensive engagement with mathematical probability in the 1660s and 1670s. The *Dialexis* can be understood, among other things, as the sum of this tendency. Its change of focus on the non-certainty of the opposite is exactly what should be expected of an author who had digested the principles of mathematical probability and expected utility (or value) maximization, but tried to uphold the principles of probabilism. (For all the anachronism that reference to expected utility seems to harbor, remember that Caramuel himself explained prudent choice in games of luck in terms of utility). There is no threshold of probability that separates eligible from non-eligible propositions in contexts of betting on their truth. However small the probability of truth for a proposition might be, it could be compensated, as Caramuel knew, by sufficiently large gains in case it was true, given sufficiently small losses in case it was wrong. The only case in which it is *ex ante* unreasonable to choose a proposition occurs if its negation is certain. From a modern point of view, this implies that the probability of the negation must have the numerical value of 1, but Caramuel must not have operated with this assumption. Even Jacob Bernoulli still attributed a probability smaller than one (the value of .999) to moral certainty, without

⁶¹Caramuel (1675), *prodromus*, n. 30 and index of the book (table of contents): "In ludo & concertatione praemittit, ut minus probabilem amplectaris sententiam, si lucri maioris spes, periculi quantitatem compenset".

addressing the problems which such an assumption creates with guidance by expected values.⁶² What presently matters is that the protagonists of the early modern calculus of probability operated with thresholds of certainty, but not with thresholds of probability, and Caramuel's move from probability to non-certainty can therefore be understood as an attempt to prepare moral theology for a calculus of probability.

If this was, indeed, his intent, he was far ahead of his contemporaries in Catholic moral theology, who on the other hand, might have been aware of some of the problems that such a transition would have incurred. Caramuel's new approach, for instance, did nothing to assuage the accusations of laxism that he had so amply incurred. Ever since the *Theologia moralis fundamentalis*, he was regarded by critics as an author who had condoned the use even of slightly and probably probable opinions. This was a constitutive part of his image of a laxist.⁶³ Now, if every proposition whose negation is not certain might be licitly embraced, this seems to legitimize—as the example of games of luck suggests—the choice of even minimally probable propositions. In fact, Caramuel saw the problems that arose from this claim, and tried to ward them off in one of the letters to friends included in the *Dialexis*. Caramuel maintained there that it was *not* licit to follow only slightly (*tenuiter*) probable propositions.⁶⁴ Such propositions were improbable, and the negation of improbable propositions could not reasonably be doubted. Hence, the negation was certain (at least morally), and by the criteria of the *Dialexis*, a slightly probable opinion could not be chosen. This is a break with the logic of mathematical probability and shows that it cannot straightforwardly be applied to scholastic categories of probability. In any case, with his discrediting of slight probability, Caramuel took a step towards improving his negative reputation as an arch-laxist.

This step would have been more effective if Caramuel had also rejected the use of probably probable (*probabiliter probabilis*) opinions, but in this respect, he had some company in defending their use. As discussed above, the Jesuit Juan Cardenas, despite his otherwise relentless attacks on Caramuel, accepted the use of probably probable opinions, and so did several other renowned theologians, such as Richard Arsdekin, and arguably also Claude

⁶²See Daston (1988: 334).

⁶³See, e.g., the references to him in discussions of slight or probable probability in Baron (1667), tom. 1, disp. 2, sec. 1, p. 138; Mamiano della Rovere (1708), pars 1, cap. 7, sec. 1, n. 343.

⁶⁴Caramuel (1675: 344), epistola ad Giovanni Oliveri, q. 2.

Lacroix (two further Jesuits).⁶⁵ Caramuel had condoned the use of probable probability in passing and by implication in the *Theologia moralis fundamentalis*. He became more explicit in the *Apologema*, where probable probability is used in a syllogism, which Caramuel accepts.⁶⁶ This nevertheless remained a far from thorough treatment of the issue, and the same can be said of the respective passages in the *Dialexis*. In a comment on the probabilism of Angelo Maria Vericelli, Caramuel asserts that the latter had permitted the use of merely probably probable opinions.⁶⁷ This statement occurs in a context in which Caramuel buttresses his own view with the authority (or concurring example) of other moral theologians, and there is no sign of disagreement with Vericelli concerning matters of probable probability. More significantly, elsewhere in the *Dialexis*, Caramuel links one of his trademark arguments to probable probability. One of the characteristic claims of Caramuelian probabilism was that one learned voice could render an opinion probable, if it was accepted that at least four learned voices could do so. This typical reflexive, or metalevel, argument built on the fact that more than four moral theologians believed that one learned author sufficed to convey probability to an opinion. If at least four authors are enough to generate probability, the claim that even one author suffices therefore becomes probable. However, due to the involved meta-ascription of probability, it would be more precise to call the result probably probable, a point that Caramuel explicitly acknowledges in the *Dialexis*.⁶⁸ Caramuel's persistent proud claim that his meta-argument is valid thus indicates that he regarded probably probable propositions as legitimately eligible and, in fact, all things considered as probable. Finally, the same conclusion can be reached through an analysis of what Caramuel must have meant with his reference to the non-certainty of an opposite side. In any reasonable interpretation, probably probable opinions seem to be included in the set of opinions whose opposite is non-certain. The probable probability of

⁶⁵For Cardenas and Lacroix, see above, and for the rest, Arsdekin (1687), pars 3, tract 1, controversia de probabilitate, §3.

⁶⁶Caramuel (1663), ep. 2, n. 97: "In tertio [syllogismo], est authentice & ab extrinseco probabile, quod opinio B sit ab intrinseco probabile". The third syllogism pits Cardinal Juan de Lugo's opinion B against a common opinion, and De Lugo's enormous intellectual reputation renders it extrinsically probable that his judgment is intrinsically probable, that is, based on sound reasons. On Juan de Lugo, see Gómez Camacho (2004); Olivares (1984).

⁶⁷Caramuel (1675: 207), n. 571.

⁶⁸Caramuel (1675: 87), n. 181: "Sed quatuor & multo plures dicunt, esse probabile, quod unus author gravis affirmat, ubi a caeteris non reprobatur. Ergo probabile est, quod sit probabile, quod unus author gravis affirmat, ubi a caeteris non reprobatur".

p is at least a reason to doubt the certainty of non- p , and propositions with dubitable certainty are not certain.

The defense of probably probable opinions separated Caramuel from ‘moderate’ probabilists, such as Fabri, Esparza, and Terill. These three authors, and the probabilists who followed them, insisted that only certainly probable propositions were suited for moral guidance. Of the more liberal authors who accepted probable probability, Caramuel was without doubt the most prominent, which is not to say that the others were his followers. There is no sign in the respective considerations of Arsdekin and Lacroix that they drew their views from Caramuel, and Cardenas was ostensibly hostile to Caramuel. Nevertheless, due to Caramuel’s prominence (the ‘most illustrious’ Caramuel, as he is often called), his position with respect to probable probability must have contributed to his image of the ‘prince of laxists’ in the eyes of contemporaries or near contemporaries. It also did not help him, of course, that his disclaimer concerning slight probability in the *Dialexis* was so inconspicuous that it could easily be neglected by critics.⁶⁹

5. Conclusion

Of the many fronts on which probabilists fought against their opponents, the one involving slight and probable probability was best defended by retrenchment. After the 1670s and Terill’s important insistence on certain probability, many ‘moderate’ probabilists embraced certain probability to distance themselves from allegedly laxist excesses. The use of probable probability was nonetheless defended by some probabilists, which shows that mature probabilism was a far from unitary school of thought not only in practical, but also in important theoretical respects. Tirso Gonzalez still appreciated Terill’s attempts to moderate probabilism, but soon the escalating ‘civil war’ among the Jesuits and the concomitant further radicalization of anti-probabilism nourished tendencies that nivellated the differences between different probabilist approaches. To Ignacio de Camargo and even more to Daniele Concina, all mature probabilism was shockingly lax and horrendous, whereas the great early Baroque theologians (such as Gabriel Vaquez and

⁶⁹Mamiano della Rovere (1708), pars I, cap. 7, sec. 1, n. 343, for instance, continues to ascribe Caramuel a pro-attitude to slight probability on the basis of the *Theologia moralis fundamentalis*.

Francisco Suárez) could be excused for finding some good in an inchoate doctrine, whose downsides were not yet fully foreseeable in their time. Throughout these developments, Juan Caramuel remained the gold standard of laxism to whose status others, such as Terill, were increasingly compared.

From a philosophical point of view, the increasing rejection of slight and probable probability did not, however, fully answer the questions which the attempts in their defense had raised – questions that indicate a fundamental problem for a pluralism of reasonable opinions. One fundamental problem of pluralism is that in a permissive interpretation, it can become a protector of dangerous, inhuman, or irrational opinions. Many friends of pluralism therefore believe that their doctrine needs to be curtailed, and the scholastic pluralism of opinions was no exception in this respect. Then, as now, the defenders of a prudently limited pluralism strive to excise daring opinions that are far removed from the mainstream. Yet as the debate on slight and probable probability documents, any closed ‘space of the reasonable’ is beset by epistemological problems. With which epistemological justification could probably probable opinions be excluded from the pluralism of reasonable opinions, to which scholastic moral theologians aspired? As the probabilist Claude Lacroix realized, it was not easy to refute the arguments that favored probable probability. If it was *prima facie* licit to endorse any reasonably assertable position, then it seemed licit to endorse positions whose assertability was reasonably assertable. These positions were probably probable in scholastic terminology. The problem was that warrants of assertability did not come with scope restrictions, that is, the predicate ‘reasonably assertable’ could be applied to any proposition *p*, even one stating the assertability of propositions. It soon transpired, of course, that such a reflexive use of the predicate *probabilis* threatened to engender an infinite regress. But this insight did not yet indicate how arbitrariness in the exclusion of opinions could be avoided. If propositions are excluded, whose reasonable assertability is reasonably assertable, some reasonably assertable propositions are apparently excluded by fiat.

It would be wrong to assume that this problem only pertains to the scholastic pluralism of opinions of the seventeenth century. The claims and arguments discussed in the present chapter can be modified to cover, for instance, the reasonable rejectability of moral positions. Many modern moralists believe that people are entitled to maintain any moral position they

need not reasonably reject.⁷⁰ Is a person then entitled to retain any position whose reasonable rejectability is not certain? If reasonable rejectability is understood in conformity with moral pluralism, such a possibility can arise, because a position which can be upheld from at least one reasonably defensible point of view is not reasonably rejectable. Usually, a plurality of such points of view exists, not only on a basic level of moral consideration, but also with respect to the criteria for reasonably rejecting moral views. Like scholastic probabilists, modern moral philosophers might therefore want to demand universal acceptance for judgments of reasonable rejectability. But on which grounds? If a pluralism of reasonable perspectives is granted for moral judgments, why not also for judgments concerning reasonableness? Moreover, a second argument of the defenders of probable probability seems difficult to ward off. Our judgments of reasonableness are often made from partisan positions, which are at best themselves reasonably assertable. If chains of reasonable grounding are disqualified in the process of belief formation, our practices of justification would break down at many points. Apparently, a pluralism of reasonable opinions cannot be controlled without arbitrary delimitation. At least some reasonably defensible opinions need to be arbitrarily excluded to prevent a *reductio ad absurdum* of the idea of a reasonable pluralism. Or can this problem be solved in some way? The present book is not the place to engage with this question. However, it aspires to show that the debate on probabilism in the seventeenth century led to a level of philosophical sophistication that revealed serious philosophical problems with a pluralism of reasonable opinions.

⁷⁰See Scanlon (1998). But note that I take the idea of reasonable rejectability from Scanlon without subscribing to his moral theory, not least because Scanlon seems to be unaware of the problems of a reflexive use of reasonable rejectability.

Chapter 10: Believing What We Want – A New Doxastic Voluntarism

One of the philosophically most interesting developments in the wake of the probabilism debate was the conception of new forms of doxastic voluntarism. Doxastic voluntarism, in a crude summary, proclaims that human beings can decide at will what they believe. In its most radical understanding, which includes the power to believe absurdities at command, doxastic voluntarism has never been part of the scholastic tradition. However, scholastics assigned a significant role to the will with respect to the generation of beliefs or opinions. The will can indirectly maneuver us towards beliefs or opinions by directing our attention to this or that piece of information, thus causing a selective intake of information. Scholastics also assumed that a person, or respectively her will, can decide whether to pass or suspend judgment, at least in cases of not epistemically certain cognition. And they claimed that the will can strengthen our beliefs, so that they become subjectively certain and unwavering. For most, if not all scholastic authors, this did not suffice to render it psychologically possible to assent to less probable propositions (that is, hold them to be true).¹ This possibility became central for the evolution of probabilism, because moderate probabilists accepted the assumption that probable propositions must be assertable by competent and reasonable persons. Hence, to be truly probable, less probable propositions needed to be reasonably assertable. To combine reasonable assertability and probabilism, new forms of doxastic voluntarism, which surpassed their medieval ancestors in radicality but also in sophistication, were conceived in the second half of the seventeenth century. The present chapter will outline this process, but discuss the details of probabilist doxastic voluntarism with primarily one author in mind: Anthony Terill (1621–1676), about whom more will be said in Section 3. Terill conceived the (in my opinion) philosophically and

¹Nicolas Faucher claims that some medieval scholastics, such as Alexander of Hales and Pierre Olivi, assumed a direct doxastic voluntarism of assent to less probable propositions (see Faucher 2015). Even if this is the case, and the issue depends on how one conceptualizes medieval doxastic voluntarism, Thomists, Scotists, and Nominalists would have rejected a direct doxastic voluntarism of assent. Thus, all the major sources used by early modern scholastics when discussing the interplay of intellect and will subscribed to an impossibility to directly assent to less probable propositions.

psychologically most sophisticated version of scholastic doxastic voluntarism. Many contemporary observers concurred with this judgment. The Jesuit Superior General, Tirso Gonzalez (1624–1705), a staunch anti-probabilist, felt compelled to praise the subtlety of Terill’s approach, and the Catholic philosopher, Antonio Rosmini (1797–1855), singled out Terill in addition to Bartolomé de Medina as one of two authors who had inaugurated “a new scientific epoch” in Catholic moral theology.² The basis for this estimation was Terill’s defense of doxastic voluntarism. He outlined why and how it can be possible and legitimate to change one’s own opinion to another opinion, which the agent considered reasonably assertable by some well-informed other person, but less probable than her own opinion. In modern philosophical terminology, persons who are equally informed, competent, and reasonable are called epistemic peers. Terill thus claimed that we may, without irrationality, move to adopt the opinion of a reasonable epistemic peer, even if we regard it as epistemically less justified than our still incumbent own opinion. On this basis, the representative of a scholastic school of thought, such as Scotism, could convert to Thomism, or to use modern examples, a Kantian could become a utilitarian, or a Protestant a Catholic for practical rather than epistemic reasons. Moreover, Terill assumed that this can be achieved by an act of the will. These claims resonate with a modern debate on doxastic voluntarism, which gained ground in the last half century, and which I will refer to repeatedly in this chapter, not least to probe the lasting philosophical significance of Terill’s views.

1. Scholastic doxastic voluntarism before the seventeenth century

The possibility of assenting to less probable propositions, that is, to hold them to be true or to believe them, initially did not pose a problem for probabilism. As discussed in Chapter 2, Juan de Salas (1553–1612), one of the most

²See Gonzalez (1694), diss. 1, n. 24: “Inter defensores sententiae benignae de usu licito opinionis minus probabilis, & minus tutae omnium acerrimus & copiosissimus est P. Antonius Terillus”; Camargo (1702), pars I, lib. 1, contr. 5, a. 7, n. 70; Concina (1751), lib. 3, diss. 2, cap. 3: “Princeps Probabilismi reflexi est P. Antonius Terillus, vir sane acuti ingenii”; and Rosmini (2011: 262): “It is not surprising that such progress produced a kind of moral-scientific crisis in mankind, so that the names MEDINA and TIRILLO ought to stand in any philosophical history of moral sciences as marking the beginning of a new scientific epoch”. In Italy, Terill was often called Tirillo.

eminent early probabilists, recognized that making such an assumption would lead to epistemological difficulties. He therefore emphasized that probabilism was first and foremost about acting in accordance with less probable propositions, and basing one's action on a proposition does not require to hold it true. However, Salas also disclosed his personal opinion that agents could not only effectively but also reasonably assent to less probable propositions. This seemed natural to him, given the 'satisficing' approach (as I have called it using modern terminology) of probabilism, which considered it sufficient to pursue the morally good without obligation to realize the morally better, even if feasible. If the attitude of 'good is good enough' was acceptable in moral matters, why was this not the case in epistemology? Epistemic satisficing along the lines of probabilist moral satisficing would signify that the intellect³ should be content with assenting to solidly probable propositions, without having to assent only to more or most probable propositions. Salas appreciated the parallel between moral and epistemic satisficing, but he did not pursue this line of thought to its logical conclusions, undoubtedly being aware of the manifest difficulties it involved with the scholastic epistemological mainstream.⁴

One of the difficulties in question arose from Aristotle's authority, who had declared that we can form any fantasies we like, but not opinions.⁵ This is an early instance of the philosophical claim, widespread today, that we do not directly choose what we believe ('belief is involuntary'). We may, of course, decide on how we seek information and process it, but beliefs and opinions arise from this activity without further involvement of choice, or so a simplified account of the formation of opinions or beliefs assumes. Most scholastics, including Aquinas, Duns Scotus, and Ockham, followed Aristotle in denying the possibility of a direct choice of opinions in the sense of a direct

³I use 'intellect' and 'will' here, both fundamental terms of scholastic rational psychology, in a way that I believe to be intuitive, even for modern readers. Discussing the manifold modern criticisms of these terms and the alleged assumptions connected to them would lead us too far astray.

⁴My reference to a 'medieval (scholastic) mainstream' will certainly raise some eyebrows. It seems to revive the by now justly debunked claim of some Neothomists that medieval scholasticism can be characterized through a mainstream (see, e.g., De Wulf 1909). In fact, 'characterizing' alludes to a shared, broad metaphysical and theological basis of the different schools of scholastic thought. No such broad mainstream existed. The mainstream I refer to is a small set of shared epistemological assumptions, not a full-blown epistemology. Sets of assumptions that most scholastics shared can be found in many fields of scholastic inquiry.

⁵Aristoteles (1984), *De anima*, 427b: "For imagining lies within our own power whenever we wish (e.g. we can call up a picture, as in the practice of mnemonics by the use of mental images), but in forming opinions we are not free: we cannot escape the alternative of falsehood or truth".

choice of assent. Epistemic satisficing, therefore, faced the opposition of a ‘torrent of doctors’, to use a phrase from the debate on probabilism. The torrent of opponents comprised, as anti-probabilists were wont to point out, Aristotle, Augustine, all great medieval scholastics, and the great majority of early modern scholastics – at least before the second half of the seventeenth century.

This is not to say, however, that doxastic voluntarism, on which epistemic satisficing in one way or other relied, was wholly rejected by medieval and most early modern scholastics. On the contrary, correctly understood, the will played a significant role in scholastic accounts of giving or withholding assent, and if we consider that to be the core of scholastic doxastic voluntarism (as we should), the doctrine was widely accepted by scholastic authors. Adherence to moderate forms of doxastic voluntarism was certainly buttressed by the indispensability of the will for religious faith. Faith stood for a greater certitude and firmness of assent than natural reason permitted, otherwise faith would automatically follow on epistemic grounds without the need for divine grace and without deserving merit. The psychic faculty that supplied the required extra strength of adherence was the will. This was one of the vectors along which doxastic voluntarism unfolded in scholastic thought, but it is not the one that will presently concern us. We will deal with assent to perfectly secular, if often moral, propositions. Assent to a more probable (or less probable) moral proposition was usually not understood along the lines of assent to truths of faith in the scholastic tradition. Moreover, an old psychological observation should be taken into account. It was already known in antiquity that human beliefs are biased by emotional and volitional influences. ‘We easily believe what we want’ (*quod volumus, facile credimus*) is one of many similar formulations encapsulating this insight.⁶ It can be found, in one variation or other, in Julius Caesar’s writings, or Seneca’s, or in a more religious vein, in Gregor the Great’s. Peter Lombard quoted Gregor, Aquinas used a variation of the quoted sentence, and thus the issue was imparted to early modern scholastics and probabilists by a long chain of notable Christian authors. Insofar, Anthony Terill’s following

⁶“Quod volumus, facile credimus. Ea credimus libenter quae cupimus. Fere libenter homines id quod volunt credunt. Homines libenter credunt quod volunt. Libenter homines quod volunt credunt. Quae volumus, ea credimus libenter, et quae sentimus ipsi, reliquos sentire speramus. Quae volumus, ea credimus libenter. Quae volumus, libenter credimus. Quod valde volumus, facile credimus”. For these or similar sentences, see Caesar (1994), III, 18, 5; Seneca (1909: 37), Hercules furens; Gregor I (1613), Homiliae in Ezechielem, 22; Petrus Lombardus (1981), III, d. 25, c. 5; Aquinas (1948), II-II, q. 162, a. 3, ad 2.

remark was perfectly traditional: “We therefore easily believe what we desire, but assent only with difficulty to what we do not want”.⁷ Moreover, such observations were not restricted to the scholastic tradition. John Locke quoted *quod volumus, facile credimus* verbatim in his *Essay Concerning Human Understanding*, and with reference to Francis Bacon.⁸

Neither scholastics nor their opponents, however, connected the prevalence of emotionally biased opinions with doxastic voluntarism in general, and a fortiori not with the more daring forms of the doctrine. Robert Holcot (c. 1290–1349), for instance, thought that human beings rather mechanically assent to propositions which appear more probable to them, that they suspend assent in case of an equal balance of reasons (that is, in doubt), and can therefore never assent to less probable propositions.⁹ What I take to be the medieval mainstream view concurs with Holcot in at least one point: human beings could never assent to propositions they considered less probable than their negation. But the mainstream was more flexible than Holcot with respect to the suspension of assent, assuming that suspension is possible as long as the competing propositions were only probable. Hence, even if a person considered a proposition to be more probable than its negation, she did not automatically assent to the proposition in question but could, by an act of the will, suspend assent (holding it neither for true nor for wrong). Such an option did not exist for metaphysically or mathematically certain propositions, or in other words, for propositions that appeared evidently true to a person. In such cases, the intellect’s apprehension was so strong that the will could not forestall assent. Given the famous threefold distinction of certainty in metaphysical, physical, and moral certainty, this left open what happened in cases of mere physical (certain, unless the laws of nature changed) or moral certainty (so certain that erroneously holding it true cannot be sinful). In these respects, the positions of scholastic authors varied, but we will not dwell on this here. We will focus on the domain of the merely probable (and thus not yet certain), where the possibility of a suspension of assent was overwhelmingly acknowledged.

For this domain, an important distinction regulated the relationship between the intellect and the will, one is tempted to say, in a fair manner.

⁷Terill (1669), q. 8, n. 3: “Facile enim credimus, quod cupimus; difficile vero assentimur illi, quod nolumus”.

⁸Locke (1990), IV, 20, 12: “quod volumus, facile credimus”.

⁹Holcot’s view influenced the early modern discourse on doxastic choice via Almain (1526). On Holcot’s doxastic claims, see Slotemaker and Witt (2016: pp. 48).

Many scholastic authors and above all Thomists distinguished between the will's activity and freedom 'with respect to exercise' (*quoad exercitium*) and 'with respect to specification' (*quoad specificationem*). As far as judgments are concerned, freedom 'with respect to exercise' signified a freedom of the will to make judgments or to refrain from judgment. Thomists assumed that the will always chose what appeared at least in some respects good to it. Moreover, the will was blind, that is, it needed the intellect to supply it with a representation of the good which it could choose. If the will decided in favor of making a judgment, the good in question would be truth, the natural aim of the intellect, which as a good was inherent in any correct judgment. In case of a decision to suspend judgment, especially concerning a probably true proposition, the will needed the representation of a different good. Here, a non-epistemic (that is, not truth-related) practical good could become relevant, for instance, as a practical benefit for the agent. It might for instance be practically better for an agent not to believe in a proposition, which shows his wife in a bad light, even if the proposition is more likely true than not. In this way, practical reasons could matter more than epistemic reasons for a decision to pass or suspend judgment.

Suspension of judgment could be reached by shifting attention away from a proposition by an act of the will. It was again contentious whether this was possible even for evidently true or false propositions, but, as indicated, we are presently only concerned with probable propositions, which are by definition not evidently true or false. Moreover, it is often not easy to determine for medieval authors whether they regarded the indirect method of shifting attention as the only way of initiating a suspension of judgment. An alternative would be the assumption that suspension was also possible through an elementary act of the will (without any need of mental distraction). Scholastics of the Baroque era clearly embraced this possibility, but I think that this is also the right interpretation for many medieval scholastics and for Aquinas in particular. Aquinas assumed a direct power of the will over the exercise of judgment, which did not require prior distraction for being exercisable.¹⁰

¹⁰See Schuessler (2012). Note that the terminology of a 'direct' or 'indirect' impact of the will on the intellect is scholastic. It appears, for instance, in the Coimbra Commentary on Aristotle's Posterior Analytics, see Conimbricenses (1611), In lib. de post. resol., lib. 1, cap. 1, q. 4, art. 4: "Dixi, directo, quoniam indirecte divertendo intellectum, vel nimium affigendo alteri cogitationi, non est dubium, quin impedire possit voluntas assensum conclusionis".

In any case, once the will had ultimately decided to exercise its power of judgment, the question of specification arose. There were just two possible specifications for a judgment: true or false (leading to assent or dissent, that is, holding for true or holding for false). With respect to specification, the intellect was in the driver seat, and it simply followed the balance of evidence or of reasons for truth. That is, a preponderance of reasons for truth inevitably led to assent and a preponderance of reasons for falsehood led to dissent once a decision to judge was executed. An even balance of reasons for truth and falsehood prevented assent or dissent and insofar relegated the case back to the will which could decide to seek further information.

Under the premises of this scholastic two-tier model of judgment with distributed roles for intellect and will, it was impossible to assent to less probable propositions at will. The will could at best reach a suspension of judgment through its power of exercise, but if a judgment was not avoided, it could only end in dissent, that is, ‘holding for false’ in the case of less probable propositions. Assent (*assensus*) was only possible to propositions that were perceived as more probable (if we exclude certainly true or false propositions, of course). The vindication of assent to less probable propositions only became an actual issue towards the middle of the seventeenth century, but before we turn to this period, a short digression to the debate on doxastic voluntarism in the late twentieth century seems in order, not least to free the scholastics (and others) from the ballast of positions that no major philosopher ever held but which are often ascribed to them in modern debates.

1.1 Digression: The modern debate on doxastic voluntarism

The recent debate on doxastic voluntarism was triggered by an article of Bernard Williams in which he denied that we can believe at will.¹¹ Williams conceived doxastic voluntarism as implying a direct power to believe even absurd propositions (‘The moon is made of Cheddar cheese’) simply through an effort of the will. To the best of my knowledge, no noteworthy philosopher ever defended such a doctrine, and it is not necessary to discuss merely hypothetical forms of doxastic voluntarism here. After Williams, the discussion of doxastic voluntarism soon returned to a more conventional

¹¹Williams (1970).

form, recognizing that even the prime defenders of doxastic voluntarism in the history of philosophy did not extend it to evidently false propositions. That is, nobody claimed that we might—by a direct act of the will—hold a proposition for false that appears evidently true to us (such as ‘ $2+2=4$ ’) and vice versa for evidently false propositions. However, William Alston and some other contributors to the recent debate on doxastic voluntarism ascribed (and continue to ascribe) a direct voluntarism of assenting to merely probable propositions (and even to less probable ones) to a list of authors which includes Aquinas and Descartes.¹² The problem is, there seems to be no textual basis for these ascriptions. Although there is some disagreement among experts on Aquinas or Descartes about which views these authors actually held with respect to doxastic voluntarism, agreement exists that their positions did *not* amount to a direct doxastic voluntarism of assent to less probable propositions.¹³

There is also widespread agreement that most claims of doxastic voluntarism in the debates to which Aquinas and Descartes contributed were indirect, that is, they relied on a possibility of eliciting beliefs and opinions by suitably directing one’s attention, through selective use of data, or by stopping and generating trains of thought. In modern debates, such forms of indirect doxastic voluntarism are also widely considered feasible. More controversial may be a direct voluntarism of suspending judgment. Such voluntarism can arguably be ascribed to Aquinas and Descartes. It assumes that we can without much ado decide to assent or suspend assent to propositions that appear not evidently true to us. Above all, this is assumed to be possible for propositions that appear only probably and not certainly true. To use a modern example, reading a weather report according to which it will rain tomorrow with eighty percent probability we may decide to (or let it pass to) believe that it will rain tomorrow or suspend assent to this proposition. In the latter case, we might answer questions whether it will rain tomorrow: ‘I do not say yes or no, but there is a weather report claiming a eighty percent probability that it will rain tomorrow’. If suspension of assent were something we can directly decide upon, this would imply that belief might sometimes even be directly voluntary in the sense of being the direct product of a conscious decision to not suspend judgment. It is clear, however, that

¹²Alston (1989).

¹³See Della Rocca (2006); Eisen Murphy (2000); Faucher (2015); Newman (2008); Niederbacher (2004); Schuessler (2012); Schuessler (2013).

vindication of a voluntarism of suspension would hardly be a remarkable result, given that the debate in modern epistemology focuses on more radical claims.

One such radical claim is the possibility and reasonableness of assent to less probable propositions. Vindication of this claim would turn doxastic voluntarism into a serious challenge for modern epistemological convictions. Precisely for this reason, the sophisticated arguments to this effect from the hey-day of the probabilism debate seem particularly interesting. However, we should be aware that even a vindication of assent to less probable propositions would lead to a much more limited doxastic voluntarism than commonly discussed in the current debate. In the current debate, doxastic voluntarism is often associated if not with assent to evidently false propositions (' $2+2=5$ '), then with propositions contradicting uncontroversial testimony ('Rome does not exist'), or propositions that conflict with perceptual information attained under normal conditions ('There is a chimpanzee in the room'). It is important to emphasize that probabilist scholastic epistemology never countenanced a doxastic voluntarism of this kind. Moreover, probabilist epistemology ventured far beyond the doxastic voluntarism of familiar philosophers, such as Aquinas or Descartes. It is therefore wrong of modern philosophy to praise itself for mending the errant ways of famous doxastic voluntarists who never subscribed to the silly claims attributed to them. This said, we will now follow the rise of a voluntarism of assent to less probable propositions in some quarters of Catholic moral theology, and leave the question whether it can be upheld even in the face of modern criticism to Section 4.

2. Probabilist doxastic voluntarism after Bianchi

The issue of assent to less probable propositions was put on the agenda of the probabilism debate in 1645 by the Jesuit Andrea Bianchi (1587-1657). As outlined above (Chapter 8), Bianchi fired the first notable shot in the war on probabilism that started in the middle of the seventeenth century. Moreover, he established doxastic voluntarism as one of the main battle fields of this war. Bianchi insisted that to follow an opinion in action was only legitimate if the

agent could at least assent to the opinion.¹⁴ This is clearly contrary to modern decision-theoretical rationality, but it has some plausibility in the framework of following one's conscience, assuming that we should be able to hold a moral opinion, which we regard as our moral guideline, for true. Under this premise, apparent considerations of rationality, but also the teachings of Aristotle and Aquinas, tell us that we cannot legitimately follow opinions, which we take to be less probable than their alternatives, because we cannot assent to such opinions. Note that upon closer inspection, this denial is twofold: we factually cannot assent to opinions which we regard as less probable than their negation, and we cannot reasonably do so. The difference is that some authors (but not Bianchi) thought that the above mentioned psychological mechanisms ('We easily believe what we desire to believe') can become powerful enough to make persons assent to propositions which they regard as less probable. However, despite such a physical possibility, the respective act of assent should be considered unreasonable. In any case, the defenders of probabilism faced an uphill struggle once Bianchi's premise of assertability was accepted.

Bianchi's attack on the assumption that we might be free to choose our opinions consists of a volley of ten arguments, only some of which will be presented here.¹⁵ He first referred to the important scholastic distinction between the exercise and specification of judgment (see above). Since only the exercise of judgment was up to the will, assent against greater probability (or in cases of equal probability) was impossible. Moreover, forming an opinion amounted to an attempt of the intellect to find the truth as best as it could. Generally, the intellect operated like a measuring apparatus, for instance, a pair of scales, inclining towards the side with the reasons for truth of greater weight, and never otherwise. The will could not meddle with this process, except to initiate or end it. Any contrary assumption would result in horrendous consequences, according to Bianchi. His ninth point was that freedom to choose opinions at will would imply the possibility to believe all that is good to be bad and all that is bad to be good.

The first probabilist response to this barrage of arguments came from Stefano Spinola (a member of the Somascan Order), who accepted the claim that probabilists should be able to assent to chosen opinions.¹⁶ Hence, he

¹⁴Bianchi (1645: 12), cap. 2.

¹⁵Bianchi (1645: 11, 17, 18, 22), q. 2.

¹⁶Spinola (1648: 102, 111, 117, 120), disp. 2, sec. 4, concl. unica. I could not find dates on the life of Stefano Spinola or Spinula.

defended the possibility of reasonable assent to less probable propositions. Spinola did not deny the division of labor between intellect and will in matters of exercise and specification of judgment, but claimed that in opaque matters (*in obscuris*), the will was involved even at the level of specification. It is notoriously difficult to ascertain what obscurity meant to a scholastic author in matters of cognition. If Spinola alluded to ambiguity—which would make sense—his claim implied that an ambiguous meaning of a proposition required a clarifying interpretation before assent or dissent could be given, and interpretation involved choice and the will. Another of his points refers to the ‘fear that the opposite might be true’, which, as we have seen, characterized scholastic definitions of opinion. According to Spinola, this fear represented a countervailing inclination of the intellect to the opposite of what was held true. If so, it must be possible to assent to this opposite because no potency could lean towards the impossible (*nulla potentia inclinare potest ad impossibile*). Moreover, the intellect related to truth in the same way as the will did to the good. The will could prefer the good over the better, and the intellect could therefore also choose the true, even though it competed with the equally true or the more probable.¹⁷

This first major public exchange of arguments on doxastic voluntarism between a probabilist and an anti-probabilist still leaves much to be desired. It took a few years until the two sides found their best arguments. Spinola’s analogy between will and intellect, for instance, seems misleading. The intellect did not choose truth, like the will chose the good, if it embraced a less probable opinion. It only chose a proposition that might turn out to be true or false, and the latter with greater probability. By contrast, a good chosen by the will remained a good, even if something else was a greater good. Subsequent probabilist analyses, as primarily offered by Honoré Fabri, Martín de Esparza, and Anthony Terill, contributed much to mending such weak spots in the doctrine’s defenses. On the other side, anti-probabilist arguments by Giulio Mercori, Prospero Fagnani, and above all, Miguel de Elizalde, improved Bianchi’s claims. This process lasted roughly until 1670, by when strong positions were formulated, and it may be a matter of dispute whether they were further improved later.

¹⁷Spinola (1648: 117), disp. 2, sec. 4, concl. unica: “etiam intellectus poterit quodvis verum eligere, etiamsi concurret cum aequo vero, vel probabiliori; aequo enim trahitur voluntas a bono, ac intellectus a vero”.

On the probabilist side, an analogy between suboptimal ('satisficing') choices of will and intellect were clearly a linchpin of argumentation. The will was not bound to choose the better, because the natural aim of the will was 'the good', not 'the better' or 'the best'.¹⁸ 'The good' signified everything that was truly good, and it morally sufficed if human beings undertook good actions, even at the expense of morally better ones. This was an important tenet of Christian morality, which exonerated ordinary persons from the moral excess burdens that a maximizing approach would have implied. In consequence, nobody needed to strive for holiness (which was, of course, nevertheless highly meritorious) – being a good Christian was enough for ordinary people. Probabilists tried to translate the outlined sufficiency view to the sphere of the intellect, but had to avoid hidden pitfalls. Moreover, there was no uniform theory on how the will could avoid to choose the better over the merely good. According to one view, the will could straightforwardly relinquish the better in favor of the good, but not in favor of something that was outright considered bad.¹⁹ Another view insisted that a chosen good must appear better in at least some respect at the moment of decision than a rejected greater good. That is, although an agent knew very well that A was better than B all things considered, she might prefer B over A under the temporary impression of a particularly exceptional aspect of B. If B was in fact a good all things considered, some authors argued that letting choice be dominated by a selective perception was not unreasonable, because nobody was obligated to optimize.

The Jesuit Gabriel Vazquez (1549–1604) had initiated a new round of this originally medieval debate on the workings of the will, to judge by the many responses he elicited from seventeenth-century scholastics.²⁰ Therefore, the ground was prepared to extend the debate to epistemic matters. The anti-probabilists were, of course, maximizers and would not accept the outlined

¹⁸See, e.g., for the Middle Ages, Gerson (1704 : 385), *De remediis contra pusillanimitatem*: "Notent quoque pusillanimitas scrupulosi quod non semper tenemur agere meliora et meliori modo quo possumus; maxime sub obligatione peccati mortalis; quoniam Deus omnipotens, quamvis hoc possit a nobis licite exigere, quia ipse Dominus et nos servi ejus, non tamen sic agere voluit, sed contentus est ut certa quae dedit praecepta servemus". And for probabilism, Salas (1607: 1202), tract. 8: "licet aliquando una opinio sit melior altera, tamen non tenetur quis semper meliorem sequi, quia non tenetur facere, quod melius est, sed quod bonum est"; Salas (1607), tract. 6, n. 58: "melius non est objectum voluntatis".

¹⁹See the discussion in Arriaga (1632), *pars de anima*, disp. 7 de voluntate, sec. 3: "Utrum voluntas ex duobus bonis possit aequale aut minus amare".

²⁰See Vazquez (1606), d. 43, cap.2 and Rodrigo de Arriaga's (1632), *pars de anima*, disp. 7 de voluntate, sec. 3 critique of Vazquez's position.

‘sufficiency view’ with respect to the good, above all, in the epistemic sphere. One of their most convincing arguments was that nobody held propositions of the following form to be true:

‘ p & less probably true that p ’

Hence, nobody assented to propositions like ‘It rains, but it is less probably true that it rains than that it rains not’.²¹ In fact, it seems inconceivable that a person who understands the meaning of her words could believe such a proposition. How can she then assent to a less probable proposition? If this were possible, she must apparently also be able to assent to the mentioned proposition. The strength of this challenge to doxastic voluntarism was recognized by Pietro Sforza Pallavicino and later highlighted by anti-probabilists such as Giulio Mercori and Miguel de Elizalde.²² Mercori quipped that not even an idiot was idiotic enough to assent to ‘ p & less probably true that p ’. The defensibility of probabilist doxastic voluntarism clearly depended on a satisfactory answer to this criticism. Moreover, it seems interesting that the apparent irrationality and inconceivability of ‘ p & less probably true that p ’ is today again considered a killer argument against doxastic voluntarism.²³

Other objections to doxastic voluntarism, which might be shared today, are less of a challenge to its scholastic versions and were therefore not highlighted by anti-probabilists. As already indicated, no probabilist assumed a possibility of denying the truth of evidently true propositions. In the scholastic tradition, an even more comprehensive limitation of doxastic choice was couched in the language of certainty (*certitudo*), so that it was considered impossible to assent to the negation of metaphysically (or mathematically), physically (or naturally), and morally (or practically) certain propositions. The concept of moral or practical certainty is ambiguous because in the seventeenth-century, it could signify either a guarantee of

²¹The absurdity of assenting to such a sentence is related to what today is called Moore’s paradox, i.e., the assertion: ‘It is raining but I believe that it is not raining’, see Adler (2002), Chap. 7. Adler (2002: 3) uses an almost identical sentence to the one offered by seventeenth-century anti-probabilists to show that doxastic voluntarism is incoherent: “ p , but I lack adequate evidence that p ”.

²²Sforza Pallavicino (1653), d. 8, q. 6, a. 4, n. 9; Mercori (1658: 123), pars 2, art. 4; Elizalde (1670), Appendix, q. 2, §4: “Ex his patet veritatem illius impossibilis experientiae, quam Em. Card. Pallavicinus eduxit dicendo, numquam nos experiri hunc actum: ‘Ego credo hoc, sed video contrarium esse probabilius, vel aequè probabile’”.

²³See Adler (2002: 3).

blamelessness or a statistical near impossibility.²⁴ In the present context, only the latter, epistemological meaning of moral certainty is relevant, which suggests that something is too likely true to be denied. Let us look at a few examples. Some scholastics considered it morally certain that the City of Rome existed, because even a person who had never been there could safely trust the many eye-witness reports of others. The unimpeded reports of the human senses were also regarded as at least naturally or morally certain. If you saw the church in a village, you were entitled to believe with at least moral certainty that there was a church in the village. It is presently not necessary to go into more detail. For our purposes, it suffices to note that none of the authors discussed here postulated a possibility of assenting at will to propositions whose falsity was apparent with any of the three kinds of certainty, because propositions that scholastics called probable or more probable were usually not at the same time considered certain. That is, ascriptions of probability and certainty excluded each other in the sense that certainty represented a higher level of confidence, and an ascription of probability usually signaled that this higher level had not been reached. Modern objections against radical forms of doxastic voluntarism, which postulate a possibility of assent against counter-evidence that is cognized with certainty, are therefore irrelevant for the assessment of the presently discussed versions of scholastic doxastic voluntarism. Take, for instance, Alvin Goldman's claim that doxastic voluntarism must be wrong because nobody can believe that an elephant is in the room if none is there.²⁵ No scholastic author would have assumed that we can assent to 'There is an elephant in the room' if our visual evidence obviously suggests that this judgment is false. Scholastic claims that less (or equally) probable sentences can be asserted are thus to be restricted to propositions and epistemic contexts that are uncertain in the sense that a reasonable person might fear that they are false (*formido oppositi*), such as the proposition 'The Thomist account of the soul is more probable than the Scotist', 'The gold florin will probably rise tomorrow against the silver shilling', – or to quote a classical scholastic example, 'This mother loves her child'. None of the listed propositions is a moral one, although moral propositions were the staple good of moral theology.

²⁴Much information about moral certainty in the seventeenth century can be found in Knebel (2000).

²⁵Goldman (1978: 515).

However, for reasons of greater clarity, even moral theologians often focused on non-moral, factual propositions in the discussion of doxastic choice.²⁶

3. *Mature probabilist doxastic voluntarism: Anthony Terill's approach*

In 1669, the English Jesuit Anthony Terill published a version of probabilism that quickly became highly influential. Many probabilists and anti-probabilists alike considered it to be the most advanced available formulation of the doctrine. Let me therefore shortly introduce this fascinating, albeit today unknown man before we discuss his sophisticated version of doxastic voluntarism.

We have only scant data on Terill's life.²⁷ He was born Anthony Bonville in 1623 into a noble English family. To avoid persecution as a Catholic, he was transferred to the Catholic school in St. Omer (Belgium) as a boy, changing his name to Terill for security reasons. Thereafter, he entered the English college in Rome, was ordained as a priest and entered the Society of Jesus in 1647. Terill became a confessor in Loreto, from where he transferred to Florence in 1652, where he taught philosophy and physics. This is a significant date, although he apparently already left Florence in 1654, because at the time, natural science in the city was imbued with Galilei's thought. Terill's only published work on physics, the *Problema mathematico-philosophicum* (1660), shows the influence of Galilei's work on engineering.²⁸ (Terill claimed some independent but parallel findings in the preface, while explicitly praising Galilei). The latter's views on engineering (and terrestrial

²⁶See Elizalde (1670), appendix, q. 1, §1 who explicitly justifies the restriction of his analysis to extra-moral, factual propositions.

²⁷The best available biopic is to be found in the *Oxford Dictionary of National Biography* (2004). Many other accounts are unreliable (e.g., they offer a wrong year of birth). Not even the *ODNB* lists all relevant variants of his name: Bonville, Boville, Terill, Terillus – and Tirillo in Italian sources. I have added new information from the Jesuit archives in Rome (ARSI) to the published information on his life. See ARSI Angl. 2 I, 161v, 258, 261v; ANGL. 2 II, 300v-303v, 355, 398; Antica Compagnia S.L. 214, p. 140; Romana Cat. Trien. 59, 32, 98; Rom. 81. Catalogus brevis 1650-56, 19, 50, 77, 99; Ven 72 II, 222, 292, 355, 380, 407; Ven 73, 10, 76; Angl. 11 Cat. Brev. 1632-1683, pp. 180.

²⁸In this work, Terill also discusses the strength of animals and the size they can reach without collapsing under their weight. For a critical assessment of Terill's respective claims, see Baldini (1997: 234-237). Most sources also mention Terill's dissertation *Conclusiones philosophicae rationibus illustratur* (1657), but I have neither been able to inspect this work, nor to trace its whereabouts, nor to ascertain that it existed. The intellectual background in Florence at the time is described by Bertoloni Meli (1996).

physics) were, of course, not subject to the prohibition of his astronomy and could be adopted by Catholic scholars. However, Terill was not a mathematical physicist in the emerging ‘modern’ style but relied more on qualitative reasoning in natural philosophy. Claims that he worked as a professor of mathematics are not corroborated by archival sources, which list him as a professor of logic, philosophy, physics, and theology. This list of subjects characterized his teachings in Parma from 1654 to 1661. Subsequently, he transferred to the Jesuit College in Liège (Belgium), thus re-entering the English Province of the Jesuits. (From Loreto to Parma, he was a member of the Italian Province). In Liège, he worked as a professor of theology and in several institutional roles, for instance, as dean. It was also here that his most important book was published, the *Fundamentum totius theologiae moralis* (1669), in which he proposed a new system of probabilism. The work was dedicated to Roger Palmer, Earl of Castlemaine, an important figure at the Restoration court of Charles II and his brother, the Duke of York (later James II) in England. Terill’s long comment on the Second Anglo-Dutch War in the dedicatory letter of the *Fundamentum*, which resembles Palmer’s later published account of the war, suggests a political significance of the book.²⁹ Palmer was the husband of the beautiful Barbara Villiers, Charles’ II *maitresse* of many years, who had converted to Catholicism, nourishing hopes or fears (depending on your point of view) that the royal house might convert, too. It is clear that Terill’s doxastic voluntarism would have been an adequate instrument for the re-Catholization of England, because it would have opened a reasonable venue for conversion even of persons who still considered their established faith as more probably true than the Catholic alternative. However, we will not pursue these political ramifications of Terill’s work here, not least because not much about Terill’s involvement in attempts to convert the royals is known, and the subject fits a historian more than a philosopher. Terill died in 1676. Towards the end of his life, he wrote the *Regula morum*, another treatise on probabilism, which was posthumously published in 1678. The *Regula* continues and defends the argument of the *Fundamentum*, prolifically responding to Miguel de Elizalde’s momentous anti-probabilist analysis in *De recta doctrina morum*, which had appeared shortly after the *Fundamentum*.

²⁹See Palmer (1671). On Barbara Villiers as *maitresse* of Charles II, see Hamilton (1980), Marshall (1994).

Terill is nearly unknown today and is in any case much less prominent than the flamboyant Juan Caramuel y Lobkowitz. Yet while Caramuel mainly served as a *bête noire* in the debate on probabilism, Terill's version of the doctrine was widely acclaimed. Terill's works were used by his Jesuit Superiors to stall the rise of anti-probabilism in the 1670s and 1680s, and he was constantly referred to in eighteenth-century writings on probabilism.³⁰ His approach was subtle and complex, as many anti-probabilists acknowledged, and could not be brushed off as easily as the—in their eyes—overblown claims of Caramuel. Terill's probabilism, therefore, certainly deserves more scrutiny by modern investigators than it has hitherto received.

With respect to doxastic voluntarism, Terill largely unfolded his claims in questions 8–10 of the *Fundamentum*. In the preceding questions, Terill had embarked on a long inquiry into the concept of probability and its ramifications. We will hark back to this inquiry only where necessary (some elements of which are addressed in other chapters of this book). Instead, we will focus on Questions 8–10:³¹

Q8: Whether the will can bend the intellect to assent to whichever of the equally probable sides of a contradiction?

Q9: Whether the will can order assent to a less probable side?

Q10: Whether assent supported by less probable reasons is reasonable?

This sequence of questions reveals Terill's strategy of argumentation. He starts by discussing the factual possibility of assent, relegating the question of its reasonableness to question 10.³² The factual possibility of assent is investigated for cases of equally (q. 8) and unequally (q. 9) probable alternatives. A separate analysis of equal and lesser probability was common in the probabilism debate and is not a peculiarity of Terill. On the whole,

³⁰Among other things, Terill's book (*liber Terilli*, I assume it was the *Regula morum*) was sent to Tirso Gonzalez in 1679 by the Jesuit Superior General Oliva, apparently to 'convert' him to probabilism (see ARSI ANGL. 2 II 1666–1698; Gonzalez 1691, praefatio, n. 28). For references to Terill in eighteenth-century discussions on probable opinions, see Concina (1751), lib. 3, diss. 2, cap. 3: "Princeps Probabilismi reflexi est P. Antonius Terillus, vir sane acuti ingenii".

³¹Terill (1669), Q8: "Utrum voluntas flectere possit intellectum ad assentiendum cuivis ex partibus contradictionis aequae probabilibus?"; Q9: "Utrum voluntas imperare possit assensum partis minus probabilism?"; Q10: "Utrum assensus nixus motivo minus probabili sit prudens?" Included in this context can also be Q7: "Utrum intellectus assentiri possit parti probabiliori, non obstante minore partis contrariae probabilitate?" The latter question is today discussed in the context of reasonable peer disagreement, but since it involves no critical form of doxastic choice, it is dropped here.

³²See also the explicit comment in Terill (1669), q. 8, n. 40.

Terill proceeds from less to more demanding issues, because it *prima facie* appears easier to vindicate the possibility of assent to one of two equally probable propositions than to justify assent to less probable propositions as reasonable. We will follow Terill's path and begin with a discussion of Q8.

3.1 Question 8: Assent to equally probable propositions

In the first steps of his analysis, Terill elucidated the background of Q8. Many authors claimed that assent to one of two alternative equally probable propositions was impossible, because the intellect in that case necessarily remains in doubt and suspension of assent was thus inevitable. However, the possibility of a practical choice of the will was usually acknowledged in cases of equal goods (e.g. choosing between two equally appealing haystacks if you are an ass). It was therefore helpful to recapitulate the role of the will in bringing about assent. Like Stefano Spinola before him, Terill emphasized that the will is required for assent in opaque cases (*in obscuris*). This was an old scholastic assumption, but unfortunately, as indicated, it was not always clear how an author understood 'obscure'. In any case, Terill claimed that the will matters with respect to assent to probable propositions (probability might be an indication of obscurity in the sense of lacking clear and distinct evidence). Moreover, Terill introduced a distinction between similar and dissimilar reasons (*motiva*, also translatable as moving grounds or motives) of the will. Reasons are similar if they belong to the same category or vary in the same dimension. This is the case, for instance, if the will has to decide between equal amounts of pleasure of the same kind, e.g. the taste of two look-alike apples of the same sort. Dissimilar reasons occur if the reasons are of a different kind, as, for instance, in cases where one alternative of choice is more honorable and the other produces more bodily pleasure. There is no doubt, given the scholastic hierarchy of goods, that honor is more valuable than bodily pleasure, but that is not the point here. The point is that the will can choose the lesser good (bodily pleasure) by exclusively directing attention to it at the expense of the higher good. This was a standard way (much used by Thomists) of explaining, why agents did often prefer pleasure over the moral good. The underlying distinction of dimensions or aspects of value offered a straightforward model for explaining how something that was better, all

things considered, might nevertheless not be chosen. ‘In some sense better’ signifies here ‘better in at least one dimension of value’, which allows the will to play off a restricted evaluation against an overall evaluation. If the will was captivated by a particular dimension of value, it could neglect the overall perspective. In this way, a lesser good could be chosen without having to assume an ability to prefer an evil (*malum*) as evil.

Terill describes the dissimilarity of reasons as a matter of mutual excess.³³ One side was better with respect to certain dimensions of value, the other with respect to other dimensions. Thereby, each option exceeded the other, but in different dimensions. The situation could, of course, be simplified if the differences in both dimensions could be mapped onto a common scale. In this case, they became similar and the case was reduced to betterness or equality in one and the same dimension. Reasons (or motives) for choice were therefore only truly dissimilar if no common yardstick existed for them. Today, we call such differences incommensurable, effectively using the same terminology as Terill. He also called similar reasons ‘commensurable’ (*commensurabilis*) and dissimilar reasons were therefore incommensurable.³⁴

In consequence, two objects of choice could be equal in different ways. They could be equal with respect to a single scale of measurement. (In a modern framework, they could, for instance, possess equal cardinal utility). They could also be on a par because their incommensurable dimensions of value mutually exceeded each other. Being on a par, of course, presupposes that the dimensions of value involved stand in no definite hierarchical relationship. In this case, in the terminology of modern decision theory, the options whose dimensions of value mutually exceed each other would be called Pareto equivalent. It was a tremendous analytical step to recognize that equality was no unitary predicate but could be differentiated into single-scale quantitative equality (akin to measures of weight) and multi-dimensional Pareto equivalence, or as some modern authors put it, into equality and being on a par.

Terill did not invent this distinction. With reference to probabilism and doxastic voluntarism, it is also found in the works of his colleague Martín de

³³Terill (1669), q. 5, ass. 12, n. 46; q. 8, n. 2.

³⁴Terill (1669), q. 8, ass. 2, n. 22: “neque enim ulla alia diversitas est, quam quod motiva aequalia juxta thesim priorem sint dissimilia, & secundum quid singula excedantur a singulis, secundum istam autem supponantur esse similia, & commensurabilia sine excessu”. On parallels to the modern concept of incommensurability and ‘being on a par’, see Chang (1997); Hsieh (2007).

Esparza (professor of theology at the Jesuit Collegio Romano in 1649–1658). Moreover, with respect to choices between goods, it was already described by Pietro Sforza Pallavicino (professor of theology at the Jesuit Collegio Romano in 1645–1652).³⁵ Pallavicino claimed that the will could only choose a lesser good, represented as such by the intellect, if different kinds of goodness were involved for which no unitary (*homogenea*) measure existed. He also pointed out that the assumption of overall ‘betterness’ did not imply that such a unitary measure must exist. Generally, Pallavicino maintained that freedom to choose a lesser good could—in line with the teachings of Aquinas—only be explained under the premise of mutual excess of impossible goods (*bona impossibilia*).³⁶ The doctrinal elements, which Esparza and Terill turned into the cogs and wheels of doxastic voluntarism, seem to thus have played a significant role in the Collegio Romano in the first half of the seventeenth century with respect to discussions on the ability of the will to choose a lesser good. They served as defenses for a mainstream Thomist claim that had been challenged by Gabriel Vazquez. (I have not pursued whether the explicitly multi-dimensional account of value described here was new or had already appeared in earlier scholastic debates.)

Terill assumed that an incommensurable difference was not only relevant for reasons (or motives) of the will but also for reasons (or motives) of the intellect, that is, reasons for the truth of a proposition. He used the example of two competing scientific theories (remember, Terill had been a professor of physics). One was empirically better confirmed, whereas the other was metaphysically more appealing.³⁷ Terill regarded these dimensions

³⁵For the dates, see the respective years in ARSI Coll.Rom.

³⁶Pallavicino’s analysis refers to the question whether the will can operate against something that is presented by the intellect as being better (Sforza Pallavicino 1653, disp. 6, q. 2, art. 5). The question is linked to a discussion of Vazquez’s position. As to the paraphrased claims, Pallavicino writes under n. 7: “Hanc indifferentiam non habet nisi potentia appetitiva qua tendat in bona diversi generis et non habentia eadem mensuram homogeneam. Further: ‘melius simpliciter’ significat ipsum bonum rationale quod est bonum alterius generis perfectioris quam bonum oppositum, & non significat bonum maius secundum aliquam mensuram homogeneam communem bono rationali & irrationali”. And n. 11: “Ergo radix libertatis per D. Thomam semper debet esse mutuus excessus in aliqua ratione representatus inter duo bona impossibilia”. It might appear puzzling that Pallavicino here refers to impossibility instead of incommensurability, but in n. 7 he explains that impossibility stands for the impossibility to simultaneously realize a maximum in all dimensions of goodness: “Cum ergo alterum ex his bonis sit quidem inferius altero, sed in eo non includatur, sicut minus iucundum includitur in iucundiore, sequitur quod quando haec bona apparent impossibilia, remaneat indifferens at utrumlibet ea potentia quae utrumque complectitur intra sphaeram sui obiecti”. On Pallavicino’s position in this respect and its relation to Antonio Pérez’s views, see also Ramelow (1997: 166).

³⁷Terill (1669), q. 8, n. 2. The difference to seventeenth-century empiricists, who focused entirely on the empirical confirmation of theories, is obvious, but the scholastic physicist Terill is not

of scientific evaluation as incommensurable. Hence, the two theories mutually exceeded each other with respect to reasons for their truth and were on a par. In analogy to the will, which could choose between incommensurable goods, Terill assumed that the intellect could choose, or be compelled to choose, between incommensurable theories. But now I get ahead of my narrative. Before we proceed to the justification of doxastic choice, another preparative step needs to be taken.

Terill maintained that both, emotions and giving assent to a proposition, influence our probability assessments with respect to that proposition. The strength of our credence is not only enhanced through desires that something be true, but also through assent and its subsequent psychological effects (*tam per, quam post assensum*). It is in this context that Terill quoted the old saying that we easily believe what we desire. Once a proposition has been accepted as a belief, we find it more difficult to deny and we tend to defend it more ardently than before. Terill pointed this out before beginning to justify his doxastic voluntarism, but later in the text he added a long discussion on the issue, in which he also explicitly acknowledged that we always consider believed propositions to be more probable than possible alternatives. It is therefore true, as Terill admitted, that the intellect only assents to the side that appears more probable to it.³⁸ Consequently, he accepted that nobody can believe propositions of the form ‘*p* & less probably true that *p*’. In his view, however, this impossibility did not rule out doxastic voluntarism, because belief in the greater probability of *p* can arise from desires that *p* be true or from assent to *p*. Both these options document the influence of volitive forces on the genesis of beliefs and opinions. (From a scholastic perspective, letting desires engender a psychological attitude or an action involves the will, if the will could have blocked the respective move). The possibility of doxastic voluntarism thus does not depend on the possibility of believing the sentence ‘*p* & less probably true that *p*’ but rather hinges on

backward and confused by scholastic gibberish. He has a clear grasp of the multi-dimensionality of a sound evaluation of scientific theories, which for him speaks against exclusively relying on empirical fit. That the metaphysical standards relevant to him would not count in modern science is another issue.

³⁸Terill (1669), q. 8, ass. 4: “Apparentia verisimilitudinis consequens ad assensum, quem intellectus uni contradictionis parti absolute praebuit, semper major est, quam apparentia veritatis pro parte opposita. Atque in hoc sensu verum est, intellectum nunquam assensum praebere, nisi parti, quae, omni apparentia inspecta, tam antecedente quam consequente dictum assensum, apparet probabilior”. Terill is here also assuming a retrospective belief that a proposition that is considered more probable after assent was always more probable. The implications of this claim are discussed below.

whether assumed greater probability is a precondition of believing p or can also be produced concomitantly or after assent to p has been generated:

Anti-probabilists: there is no assent to p unless p is perceived as more probable in advance.

Terill: a previously not existing assumption of a greater probability for p can be produced concomitantly or after assent to p has been generated by the will.

Terill assumes two ways how assent can produce the assumed effect on a person's probability judgment: assent adds the authority of the assenting person to the authorities speaking for p , and the act of assent itself has a belief shaping effect. In addition, a suitable probability assessment can also result from a desire to see p true, which may arise in the doxastic process. In all these ways, a proposition that is equally probable as its negation (we are still in the context of Q8) can become viewed as more probable. Of course, in the seventeenth century, Terill lacked the option of backing his psychological hypotheses with experiments which today are conducted by modern cognitive science. Yet the findings of cognitive science seem to confirm Terill's assumptions. We—or rather, our neural decision-making apparatus—usually arrive at an inner decision to do q before we consciously decide in favor of q .³⁹ (It is often erroneously believed that this undermines our freedom of choice, but this is not the issue here). If the same is true for doxastic decisions, as our neural setup suggests, a doxastic decision might exert influence before the assent which it is aimed at enters the agent's consciousness. Under this premise, a person can internally assent to a proposition p before she becomes conscious of her assent to p and her assessment that p is more probable than *not- p* . Hence, sub-conscious workings of voluntative psychological states (vulgo: the will) might explain why we sometimes believe a proposition before we have fabricated—or found, to phrase it more benevolently—a satisfactory justification for our belief.

These considerations suggest the following sequence of steps, all from the agent's perspective, as crucial for Terill's doxastic voluntarism:

³⁹See, e.g., Kühn and Brass (2009).

judgment A at time t_1 : p is equally (or less)⁴⁰ probable as $q \rightarrow t_2$: desire that p be true and assent to $p \rightarrow t_3$: belief that p & judgment B that p is more probable than q .

On the basis of the outlined premises and clarifications, Terill enters into several rounds of argumentation, each of which is preceded by a crisp assertion which he subsequently defends. *Assertion One* is:⁴¹

“The will can bend the intellect to assent any side of a contradiction, given that the sides are equally probable before all impending emotions and before assent, and that their probability relies on dissimilar reasons.”

It is conspicuous that Terill here not only refers to assent but also to emotions as factors that influence probability judgments. Actually, it does not collide with mainstream epistemological assumptions to accept that we may believe propositions that appear most probable to us under an emotionally colored perspective, even though considered soberly, they would seem less probable. The reasonableness of such beliefs is, of course, questionable, but for now we are only concerned with their psychological possibility. In fact, humans quite often believe things which they would not believe if emotions were set aside.

It should also be noted that from a scholastic perspective, the premise of equal probability excludes some cases that might count as equally probable in light of modern mathematical probability. Take the proposition ‘The number of stars is even’. There are apparently no grounds to believe this proposition more or less than the opposite ‘The number of stars is odd’. Hence, both propositions might be considered equally probable in the sense of being supported by equally strong reasons for truth. However, neither of the propositions is at all probable in the scholastic sense, because there are no reasons to believe either one or the other. At least, I know of no reason that would justify believing that the number of stars is even. For scholastics, probability implied that strong reasons for assent to a proposition exist. An equality of no or weak reasons on both sides would thus not produce equal

⁴⁰Following the sequence of Terill’s questions, we are presently concerned with equally probable propositions, less probable ones are dealt with in Q9.

⁴¹Terill (1669), q. 8, ass. 1: “Voluntas flectere potest intellectum ad assensum cuilibet ex partibus contradictionis praebendum, modo partes illae pro priori ad omnem affectum & assensum sint aequae probabiles & motiva, in quibus earum probabilitas consistit sint dissimilia”.

probability in the scholastic sense. Moreover, the latter requires not only a parity of strong reasons but also of reasons that remain strong once the presence of equally strong reasons for an opposite proposition are taken into account. In this sense, Thomism and Scotism are equally probable. They form networks of propositions for which strong reasons speak in the eyes of their supporters, even though they know that an opposite camp exists and how it argues. Thomism and Scotism are suitable examples, also because the reasons for their truth might be considered incommensurable ('dissimilar'). There is no common yardstick for quantifying their strength.

Terill offered four different justifications for *Assertion One*. For modern readers, it is often tiring to follow the course of typically cumulative scholastic argumentation, which heaps reasons upon reasons, often continuing to drive nails into a coffin that already seems tightly sealed. But in some way, this method is prescient because many scholastic arguments no longer appear persuasive to posterity, whereas others still seem forceful. Similar to Paul Simon's song 'Fifty ways to leave your lover', the idea is that each reader might find at least one argument in an analysis that suits him or is convinced by the cumulative weight of reasons. To capture a bit of the flavor of scholastic argumentation, we will therefore also inspect some of Terill's reasons, which might not look particularly convincing from a modern perspective.

At first, Terill followed the established paths of Spinola's argument. In obscure matters, the intellect is naturally subject to the command of the will.⁴² The precondition is that a sufficiently strong motive for satisfactory obedience by the intellect is present. This is the case with opposed, equally probable propositions, because the motive of the intellect is then strong by definition. Its sufficiency is clear to Terill from a comparison with choices of goods, where equal and dissimilar motives suffice to enable the will to opt for either side. Hence, the same should be the case for the intellect in cases of equal and dissimilar reasons. It is not true, wrote Terill, that opposed equal and dissimilar motives cancel each other out. They remain strong despite their incompatibility, and therefore the foregoing holds.

A second justification is also derived from Spinola. Wherever a natural inclination leans towards an aim, reaching this aim must be possible, because

⁴²Terill (1669), q. 8, ass. 1, n. 4: "Probatur primo, intellectus in obscuris naturaliter subjacet imperio voluntatis".

a natural inclination cannot be assumed to generally operate in vain.⁴³ The intellect leans towards the probable, hence assent to the probable must be possible. Terill discussed the objections of Mercori, who maintained that in an equal balance of probabilities, at least one of the tendencies must of necessity be in vain, regardless which side we assent to. Terill responded that the non-vanity of natural inclinations does not signify that both tendencies must be jointly realizable, but only that none of them must be impossible to realize. Moreover, Mercori objected that in case of an equal balance of reasons, the intellect does not experience a pull towards one side but remains indifferent. Terill responded that the intellect nevertheless experiences an equally strong pull towards each side, so that there are in fact two tendencies that keep each other in check. In any case, the resultant effect should not be viewed simply from a mechanical perspective, but blocking and impeding forces should be distinguished. The first are insuperable, but not the second. Thus, the counter-vailing probability of an opposed proposition is merely an impediment to assent but not necessarily an assent-blocker.

With the third justification, Terill left the ambit of Spinola's arguments. He claimed that the intellect must be able to assent to each of two equally probable propositions if it can assent to more probable propositions. This is the case because the difference in probability between a more probable and an equally probable proposition can become arbitrarily small.⁴⁴ Hence, the difference between the respective dispositions of the intellect to the compared propositions will also fade in this process. At some point, the difference will become so small that it is impossible for it to necessitate categorically different outcomes. That is, Terill claimed that a diminishing difference in the causes will lead to a diminishing difference in the effect.

The fourth justification simply states that even in cases of equal probability, the propositions retain their solid probability, which as such suffices to procure an opinion under the command of the will.⁴⁵ In my interpretation, Terill referred here to his definition of probability; a

⁴³Terill (1669), q. 8, ass. 1, n. 6: "Argumentum a priori ex Stephano Spinula: Ubi cunque datur naturalis inclinatio alicujus potentiae ad aliquem terminum, terminus ille possibilis est; quia naturalis inclinatio nec frustra est, nec fertur ad impossibilia".

⁴⁴Terill (1669), q. 8, ass. 1, n. 6: "Consequentia tenet, quia distantia inter paulo probabilius & aequè probabile est adeo parva, ut dispositio intellectus & voluntatis sit ferme eadem in utroque casu, atque adeo impossibile est, quod una ex illis dispositionibus sufficiat ad inducendum effectum specie diversum ab alia".

⁴⁵Terill (1669), q. 8, ass. 1, n. 13: "motivum probabilis, etiam in concursu motivi oppositi aequè probabili, est vere probabile, & habet vim motivi probabilis. Ergo sufficit ad opinionem mediante voluntatis imperio causandam".

precondition of the probability of propositions is that reasonable persons can assent to them. Hence, assertibility is implicit in the notion of probability, and it is not lost on either side in cases of equal probability. Otherwise, the reasons for one side would seriously weaken the reasons for the other to such an extent that reasonable assent becomes impossible, and in such cases, Terill would not attest equal probability.

After presenting his justifications, Terill followed the scholastic habit of extensively responding to objections. In this context, he also rebutted the view that the will must remain undecided if it finds itself torn between equally good options.

Assertion Two builds on the foregoing analysis. It repeats the claims of the first assertion, except for substituting similar for dissimilar motives.⁴⁶ Hence, Terill never intended to restrict doxastic choice to cases with incommensurable motives (or reasons). These cases only helped jumpstart his argument, because his contemporaries already widely acknowledged that the will may freely choose between incommensurable goods. Whether the will was similarly unconstrained in cases of comparable (that is, commensurable) motives was more controversial. The example of Buridan's ass comes to mind, which must die between equally attractive bundles of hay. However, neither Terill nor apparently most other seventeenth-century contributors to the debate on choice between equal options mentioned Buridan's ass, which incidentally also did not appear in Buridan's original writings, but was of later coinage.⁴⁷ According to Terill, all stated arguments remain in force, even if the motives on both sides are similar. He therefore did not spend much effort justifying his second assertion.

Assertion Three confirms the obtained results, even for cases in which an agent explicitly assessed the probability of both sides before emotions or assent exerted any influence. This is at first glance a surprising claim, because it seems to add nothing to what already has been established. However, I take Terill here to emphasize the force of his claim. It might make a difference, whether emotions or acts of assent influence the formation of a probability judgment, or whether they are also able to change given probability judgments, which an agent is aware to have made. The latter claim is stronger

⁴⁶Terill (1669), q. 8, ass. 2: "Quando motiva pro utraque contradictionis parte, ante omnem assensum & peculiarem affectum, sunt aequalia, intellectus flecti potest ad assensum cujusvis partis, etsi motiva illa sint similia".

⁴⁷See Michael (1985: 294).

than the former, and Terill might therefore have considered it worthwhile to explicitly discuss it.

Assertion Four has already been addressed. It claims that due to the act of assent we always consider propositions to which we assent as being more probable than all counter-opinions. Terill maintains that there is a retrospective component in the effects of assent. After assent, we think that p has already been more probable even before assent was given. In this respect, Terill's responses to an objection are of interest to us. Some authors considered it inconsistent to regard p as more probable in retrospect if it had been taken to be less or equally probable earlier. This would be like asserting ' p is more probable & p is less (or equally) probable'. Terill denied that this is the case.⁴⁸ The respective judgments are taken at different times and from different perspectives, hence they do not contradict each other. But opponents might insist that the reasons for the opinions' truth claims did not change in the envisioned process. Agents do not gain any truth-relevant information by desiring that p or giving assent to p , and their judgment of the reasons for both sides should therefore remain the same. Hence, given the known reasons for truth, the assented proposition should still appear less probable in contrast to Terill's claim that it appears more probable after assent.⁴⁹ Moreover, the agent should be aware of this incoherence. Terill answered that although the intellect in fact does not gain any new reasons through desires or assent, it nevertheless weighs the available reasons differently. That is, the respective reasons (or their relative weights) appear differently to the intellect after desires have emerged or assent been given.⁵⁰ The question is thus whether a desire- or assent-conditioned change in the weight of reasons, without any change in the underlying content of reasons, is incoherent and must be realized as such. Terill did not think so, but he also did not pursue the

⁴⁸Terill (1669), q. 8, ass. 4, n. 30: "Respondeo duo illa iudicia non esse impossibilia; quia primum iudicium solum enunciat de apparentia, quam objectum habet in intellectu, pro priori ad omnem affectum, omnemque assensum erga illud absolute impensum; secundum vero enunciat de apparentia, quam habet, prout illud una cum prioribus motivis nunc substat efficaci amori, absoluto assensui, atque authoritati iudicantis actualiter in illud impensae. At haec apparentia diversa est a priori, & a diversis causis derivatur".

⁴⁹Terill (1669), q. 8, ass. 4, n. 33: "Instabis: ergo intellectus, qui hic & nunc putat opinionem, cui assensum praebet, esse probabiliorem opposita, potest simul existimare illam non esse opposita probabiliorem, quantum spectat ad rationes utriusque parti faventes pro priori ad omnem affectum, & iudicium uni parti impensum".

⁵⁰Terill (1669), q. 8, ass. 4, n. 33: "Deinde, etsi intellectus non haberet nova motiva, illa tamen eadem motiva, prout consequuntur ad assensum, & apparent conjuncta cum affectu & iudicio absolute approbante illa, aliter apparent ad movendam eandem mentem, quam appaerent pro priori ante tales affectus".

implications of his denial any further. Going beyond Terill, we should, indeed, ask whether a decision of the will (e.g. to assent to p) is a sufficient reason for a different weighing of reasons, or more precisely, for changing the weight of particular epistemic (i.e. truth-directed) reasons. To answer this question, we need to consider whether practical reasons are legitimate grounds for changing the weight of epistemic reasons. Yet these questions draw us towards the issue of reasonableness with respect to doxastic choices, whereas we are presently still only concerned with their possibility. Inasmuch, Terill might well be right; desires, emotional states, and assent might as a matter of fact change our perspective on reasons whose content remains unaltered.

3.2 Question 9: Assent to a less probable opinion

The case of equally probable propositions has to be kept in mind when we now turn to Q9, where Terill asks whether the intellect can assent to a less probable opinion.⁵¹ After shortly preparing the ground for an answer, he proceeded with *Assertion One*:⁵²

“It is possible to bend the intellect through a command of the will to assent to a side of a contradiction, which expressly is and explicitly is believed to be less probable, and to reject the more probable side, given that the motives grounding the probability are dissimilar and before all emotion and assent for one side are, and are believed to be, unequal.”

Terill thus carefully spells out his claim. The dissimilar motives are again incommensurable reasons for truth, and they are unequal inasmuch as one side is weightier than the other, engendering opposition between more and less probable propositions. Terill further prepared the ground for his argument with some examples. Interestingly, examples on heretics and the credibility of the Catholic mysteries of faith come first. Heretics can often be convinced of

⁵¹Terill (1669), q. 9: “Utrum Intellectus assentiri possit opinioni minus probabili”?

⁵²Terill (1669), q. 9, ass. 1: “Intellectus ex imperio voluntatis flecti potest ad assensum praebendum illi parti contradictionis, quae exercite est, & signate creditur minus probabilis, rejecta parte probabiliore, modo motiva fundantia probabilitatem sint dissimilia, & pro priori ad omnem affectum & assensum uni parti peculiariter affixum, sint & credantur inaequalia”.

the reasonable tenability of Catholicism, but not of its superiority. Hence, the task of mission and conversion would be much impeded or even become impossible if human beings could not assent at will to propositions they deem less probable. The same is true with respect to the mysteries of faith (e.g. transsubstantiation or the real substantial presence of Christ in a piece of bread), which for the natural mind appear probable at best, and often less so than the view that they are impossible. At this point, the intended value of Terill's doxastic voluntarism for Catholicism becomes apparent. It might be a tremendous instrument of conversion and thus for the Counter-Reformation, above all, in the English context. It is nevertheless not surprising that theologians, who were not directly concerned with the re-Catholization of England, were often less than enthusiastic about sophisticated versions of doxastic voluntarism. After all, doxastic voluntarism was a double-edged sword. Its premises were entirely philosophical and could therefore also be used to convert Catholics to another creed, given a suitable framing of probabilities and a suitable political background.

Another of Terill's examples refers to a jealous husband (*maritus zelotypus*). A jealous husband always thinks bad of his wife, even if he realizes that his allegations against her would soberly be considered less probably true than the opposite.⁵³ Terill was right that emotions can have such powerful effects on our beliefs. It is, however, conspicuous that his examples do not straightforwardly rely on a direct power to believe at will. Neither the conversion of Protestants (or other 'heretics') nor the views of a jealous husband typically involve decisions that require a (near) instantaneous belief change. We need to remember this, because it shows that Terill's argument did not crucially depend on direct doxastic voluntarism, that is, instant belief change. His core issue was the generation of assent to propositions the agent deemed less probable.

Terill expressly noted that emotionally charged opinions are not always morally undesirable as they are in the case of the jealous husband. They can also be noble and desirable, as in the case of a person who defends a friend against accusations and refuses to believe the worst of him, as long as a positive interpretation remains at least probable.⁵⁴ The grounds for vindicating

⁵³Terill (1669), q. 9, ass. 1, n. 4: "Et ratio est, quia non vult affectum, & iudicium uni parti alligatum deponere, inde enim fit consequenter ad tale iudicium, ut vehementer stimuletur ad assentiendum uni parti prae alia; quo tamen non obstante, manifestum est, rationes, pro priori ad omnem affectum & iudicium, saepe esse potentiores pro parte, quam temere iudicans respuit".

⁵⁴Terill (1669), q. 9, ass. 1, n. 13.

doxastic choice in such cases were pretty much the same for Terill as in Q8. We therefore need not repeat them. The remainder of Q9 is largely concerned with a suitable re-interpretation of authoritative voices that appear to ostensibly oppose the possibility of assent to less probable opinions. Aristotle and Aquinas are the most prominent names in this respect, and Terill wrote many pages in an attempt to show that their views were—rightly understood—in line with his own. We need not presently delve deeper into these interpretations, although they are of some interest for the history of early modern Aristotelianism and Thomism, and therefore deserve fuller investigation. They document how broadly these paradigms of thought were interpreted in seventeenth-century scholasticism, in particular by Jesuits who were bound to uphold both. Note that Terill never got into trouble for his reading of Aristotle or Aquinas or for any of his other claims; the *Fundamentum* was never put on the Index (as other probabilist writings were). Moreover, it would be wrong to regard Terill's reading of Aristotle and Aquinas as isolated. It was certainly shared by many probabilists who followed Terill, and probabilism was an influential doctrine in the early modern era, dominating Catholic moral theology in the first half of the seventeenth century, remaining strong in the second half, and holding its ground throughout most of the eighteenth century in several important regions of Catholic Europe. This needs to be remembered when we ask what Aristotelianism and Thomism really meant to their early modern interpreters.

3.3 Question 10: The reasonableness of assent to a less probable opinion

One might think that even if it were possible to assent to a less probable proposition at will, it certainly could not be reasonable. Terill disagreed and tried to demonstrate in Q10 why assent to a less probable proposition can, from an epistemic as well as from a practical perspective, be reasonable (*prudens*). Accordingly, Q10 asks: Can a person who gives assent to a less probable opinion be considered reasonable?⁵⁵ The follow-up *Assertion One* states:

⁵⁵Terill (1669), q. 10: “Utrum prudenter censendus sit judicare, qui assensum praebet opinioni minus probabili? Assertio prima: Qui in speculativis absolute assentitur motivo minus probabili, probabiliore relicto, sine intellectus tantum spectato, prudenter judicat, quamvis minus prudenter, quam si oppositum judicium ferret”.

“Who in speculative matters fully assents to a less probable reason, rejecting a more probable one, judges reasonably with the aim of the intellect in view, albeit less reasonably than if he made the opposite judgment.”

Terill thus limited his discussion to speculative propositions, that is, propositions on extra-moral facts. This restriction shows that he wanted to speak about propositions that specify how things are, not what we should do (this would be practical propositions). The latter half of the assertion bears witness to Terill’s epistemic sufficiency view. Clearly, from an epistemological perspective, assent to a more probable proposition appears more reasonable (or more prudent, if you want) than assent to a less probable counterproposition. However, this did not disqualify the latter kind of assent. What counts, according to Terill, is that assent to any probable proposition, and be it a less probable one, remains reasonable enough (*sufficiens ad prudens iudicium*).

As Terill emphasized, a probable proposition is by definition reasonably assertable. Hence, the will does not act temerarily if it commands assent to such a proposition. There is enough prospect of truth in probable propositions, and assent to them is therefore not frivolous or foolish but well-pondered and, all things considered, reasonable.⁵⁶ Moreover, the will needs not to take greater care with respect to the aim of the intellect than with respect to its own proper aim.⁵⁷ For the reasonableness of an act of will, it suffices to choose something that is really a good, even if a better good would be available. (The natural aim of the will is the good, not the better). Why then should the will care for a greater epistemic good if a sufficient one is at hand?

⁵⁶Terill (1669), q. 10, ass. 1, n. 2: “At quando voluntas intellectui imperat assensum ex tali motivo, non temere, non ex animi levitate illum praecepit ad unam partem, sed ex motivo vere magno & sufficienti ad prudens iudicium, illum affigit ad partem, in qua veritas, quae est unicus finis intellectus, creditur latere; hoc enim est essenziale omni motivo vere probabili. Ergo talis assensus, fine intellectus praecise spectato, non est temerarius, aut stultus, sed bene consideratus, & omnibus pensatis prudens”.

⁵⁷Terill (1669), q. 10, ass. 1, n. 3: “Ut voluntas prudenter imperet assensum, idque ex intuitu boni proprii intellectus, non requiritur major cura & sollicitudo, quam ab eadem voluntate exigitur in ordine ad proprium objectum, ut illud amplectendo prudenter operetur. At, ut in electione proprii objecti prudenter agat voluntas, non est necesse, ut eligat bonum praestantius ex oppositis; sed sufficit si eligat bonum minus, etiam cognitum ut minus: ergo ubi veritas verisimiliter tantum apparet in utroque ex contradictoriis, ut voluntas prudenter determinet intellectum ad assensum, non tenetur illum ad partem verisimiliorem affigere; sed sufficit, si ad partem minus probabilem suo imperio illum determinet”.

It might be objected that the will and the intellect are not on a par because the choice of a lesser good certainly endows the will with a good, while the choice of a probable proposition does not inevitably furnish the intellect with a true proposition. Terill responded that in cases in which truth remained hidden under a veil of obscurity, the natural aim of the intellect was not truth which it cannot foresee, but truth as it appears in probability. And probability is what the will sufficiently pursues, albeit to a lesser degree than if it had chosen the more probable side.⁵⁸

Is there a point to epistemic sufficiency? Terill did not use his example of the jealous husband in Q10, but it is nevertheless instructive. First of all, let us assume we are not concerned with a case of straightforward temerarious judgment. That is, we are not dealing with a husband whose jealousy is wholly ungrounded or crassly irrational. This would not render his views probable in scholastic terms. We are rather dealing with a husband who could confidently present circumstantial evidence for his wife's infidelity to sober-minded, honest friends. Let these friends confirm that the available evidence justifies belief in the wife's infidelity, at least from a reasonably adoptable perspective, if not under the most benevolent interpretation of the wife's conduct. The husband, however, is sure that he would consider the most benevolent interpretation to be correct if he were only able to judge the case calmly and impartially. At the same time, he concedes that other reasonable persons might judge the case differently, even when viewing it objectively and impartially. On the whole, therefore, the husband considers the assumption of his wife's infidelity as less probable and even wrong from a perspective that abstracts from his emotional turmoil. Being under emotional stress, however, he actually believes that his wife is unfaithful to him. Now let us also assume that the husband has a strong urge to be reasonable in his beliefs. Should he take steps to revise his belief about his wife's infidelity (e.g. by seeking therapeutic help)? On the one hand, it might seem plausible, because he believes a proposition to be true which he also believes he would consider as less probable than its negation from a sober and emotionally unbiased perspective. Note that the husband also knows that his emotional stress is not a good epistemic reason for holding a proposition to be true. On the other hand, he also realizes that his belief in his wife's infidelity can be reasonably endorsed. This is what his advisors tell him, and he has no good reason to doubt their reasonableness, veracity, or judgmental power. Why should he

⁵⁸Terill (1669), q. 10, ass. 1, n. 5.

spend a lot of time on therapy if his confessor tells him that a reasonable person could believe in his wife's infidelity? To put the question differently: why should he follow his own judgment of probability rather than rely on other persons' assurances that he might reasonably believe in his wife's infidelity? From this perspective, it seems to be sufficiently epistemically reasonable for the husband to retain his belief in his wife's infidelity.

However, should the husband not revise his cool-hour perspective, namely that his wife's fidelity is the most probable impartial assumption, in light of his confessor's and his friends' opinions? There seems to be no need for that, in particular since his confessor and friends only asserted that a reasonable person *may* believe that his wife is being unfaithful. The situation with respect to an impartial review is best seen as one in which reasonable disagreement is possible. Hence, reasonable persons can believe in the wife's infidelity given the available evidence, while other reasonable persons (epistemic peers) can believe the opposite. Add, if you want, that the evidence varies in several mutually incommensurable dimensions. In such a scenario, the husband would not have to give up his own view only because his confessor and friends tell him that another view is also reasonably tenable. (I am assuming the so-called 'steadfast view' on reasonable disagreement here. It asserts that we need not change our beliefs if we find them embroiled in reasonable disagreement. A large part of the modern literature on reasonable disagreement accepts the 'steadfast view').⁵⁹

In general, therefore, we may consider the husband to be reasonable enough because he retains a reasonably defensible belief and would be willing to give it up if it were not reasonably defensible. Nevertheless, the husband believes what he reasonably assumes to be less probable from a sober perspective. Insofar, Terill seems to have a point.

Let us now come to *Assertion Two* of Q10, which addresses the practical side of doxastic choices:⁶⁰

“As to the aim of the will, the will often acts more prudent in ordering assent to a less probable than to a more probable reason.”

⁵⁹See Christensen and Lackey (2016); Sosa (2010).

⁶⁰Terill (1669), q. 10, ass. 2: “Si finis voluntatis spectetur, saepe voluntas prudentius agit imperando assensum motivo minus, quam magis probabili”.

This is an important point, because it answers the question why we should be content with being sufficiently epistemically reasonable when being epistemically more reasonable would also be possible. Epistemic satisficing may help us realize non-epistemic, practical benefits, and for greater gains in this dimension, we might be willing to sacrifice epistemic value as long as our set of beliefs remains reasonably assertable. This strategy does not appear irrational, all things considered, although Terill's example of it is a bit saucy. He discusses the case of an impoverished scholar who is offered a lushly endowed professorship (*stipendium optimum annexum sit cathedrae*). Unfortunately, the professorship is earmarked for teaching a doctrine that the scholar considers less probable than an alternative. Let the doctrine—following a hint by Terill—be Thomism and let the alternative be Scotism (if you are unfamiliar with scholastic schools of thought, you may use Kantianism and utilitarianism as examples). What should the scholar (who is a Scotist) do? It would apparently be good for him to secure the decently endowed professorship for himself. Although the example seems to be a quip at a fair amount of hypocrisy in Terill's order—the Jesuits, whose members were required to follow Aquinas—I assume that Terill was also serious about his example. The scholar in our case has strong practical reasons to become a Thomist, especially since he considers Thomism to be at least a reasonably tenable doctrine, maybe because of the many reasonable scholars who genuinely defend it. He therefore would not have to assent to an unreasonable doctrine. Nevertheless, Scotism appears more likely true to him. The legitimate doxastic choice of a doctrine that appears less probable to the poor scholar allows him to become an influential, well salaried professor, and this manifestly serves his practical good. Terill claimed that many professors could not honestly pledge to be Thomists if it were not reasonable to assent to less probable reasons.⁶¹

Terill's professor case smells of what the Jesuits have traditionally been accused of: a clever ruse combined with intellectual dishonesty. Many readers will probably regard it as dishonest to change one's convictions for profit or academic advancement. Insofar, it should be remembered that Terill's point can also be made with a more noble case in mind, in which the professorship might allow the scholar to develop a cure for cancer, or some other widely acclaimed project. The basic point remains the same. Practical gains, whether

⁶¹Terill (1669), q. 10, ass. 2, n. 8, in margine: "Si assensus motivi minus probabilis non esset prudens illicitum esset Thomistis jurare in verba magistri sui".

in terms of self-interest, moral value, or the common good, might outweigh limited losses of epistemic value, in particular if the resulting epistemic outcome remains reasonably assertable. One crucial aspect of these considerations is that epistemic losses occur from the agent's perspective (and relative to his or her probability assessment), whereas reasonable tenability is judged from the perspective of possible epistemic peers. The claim is therefore that it is permissible and reasonable to switch one's doxastic state to a reasonable epistemic peer's, if this serves some practical good.

Assertion Three extends this claim to moral propositions.⁶² It should be remembered that hitherto, we were only concerned with speculative propositions, that is, with extra-moral statements of fact. Nothing said so far precludes that Terill's analysis is extended to the moral sphere, not least because moral claims are a matter of truth and falsehood for scholastics (scholastics were moral realists of sorts).

4. Terill further considered

Terill's doxastic voluntarism can be approached from both a historical and from a systematic perspective. Historically, it seems interesting what types of doxastic voluntarism emerged in the scholastic tradition and how these differed from current clichés about premodern doxastic voluntarism. It is also significant how sophisticated such doctrines became in the seventeenth century. The distinction between commensurable and incommensurable reasons, or the causal effects of desires and assent appear impressive in this respect. The question, however, is whether they can still be relevant for our present assessment of doxastic voluntarism. This is the systematic perspective, which has already been mentioned in the foregoing sections, but some issues have remained unaddressed. Of course, the voluminous modern literature on doxastic voluntarism cannot be discussed within the boundaries of the present investigation. Therefore, only suggestions for further discussion can be made, yet this can and should be the case, given my view that Terill touched upon some philosophically relevant points.

⁶²Terill (1669), q. 10, ass. 3: "Iudicium affixum motivo minus probabili probabiliore relicto, etiam in moralibus est prudens, quamvi solus finis intellectus inspiciatur. At si sermo sit utrum res aliqua liceat, saepe est longe prudentius iudicio opposito, si omnia consideretur".

Let us begin with the sequence of judgments and decisions assumed in Terill's doxastic voluntarism:

Judgment A at time t_1 : p is equally or less probable as $q \rightarrow t_2$: desire that p be true and assent to $p \rightarrow t_3$: belief that p & judgment B that p is more probable than q .

It seems promising to defend the possibility of *indirectly* bringing about the set of beliefs at t_3 when starting at t_1 . An indirect manipulation of one's own doxastic states would usually involve a prolonged period of selective information intake and processing. Some authors deny that the process in question represents a choice of the will, because we cannot be one hundred percent sure where a process of selective reasoning will lead. However, this is too restrictive. Many voluntary actions do not come with a guarantee of success. For instance, we usually hold a sniper responsible for an act of deliberately killing, even though she does not hit her target with absolute certainty. On the whole, a lacking guarantee of success is not a serious problem of calculated belief change if the chances of success are high enough. It is an empirical question whether we can direct ourselves with a sufficient prospect of success towards a given belief (or opinion) through selective information intake. Philosophers cannot a priori exclude that such a process of indirect doxastic manipulation might succeed. We may therefore operate on the premise that the above outlined transition from t_1 to t_3 might be achieved through indirect means of doxastic manipulation. Since the possibility of indirect doxastic voluntarism is widely acknowledged in modern epistemology, this conclusion should not be too controversial.

The same should not be expected for the *reasonableness* of the respective transition, although Terill's Q10 takes some steps towards assuaging qualms on reasonableness. In fact, the cases of a jealous husband and a poor scholar show why it might not be unreasonable to undergo a transition from t_1 to t_3 . Of course, the reasoning (or operant conditioning) process that underlies the transition is epistemically suboptimal, and some would regard it as outright foul. Yet why should a reasonable agent need to take this deficiency into consideration if the end result is a reasonably defensible set of beliefs, that is, one that a reasonable epistemic peer could adopt without much ado? Given the huge gains in terms of practical good that might result, ensuring the general reasonable tenability of one's final position may be justifiable (given

that the doxastic process has no fallout on others or impairs one's final intellectual capacities). Our agent will not, of course, be as epistemically virtuous as he could. So what? From the perspective of seventeenth-century Catholic moral theologians, striving for maximal virtue was meritorious but not a duty, and persons could be reasonable without being maximally epistemically virtuous. This, in my opinion, is a healthy position. Engendering assent to propositions which an agent views as being less supported by truth-directed reasons than another proposition, but as being sufficiently supported by reasons held true by reasonable epistemic peers, is compatible with all demands that epistemic rationality can legitimately impose on us. Moreover, lest it be believed that this is only an academically stipulated scenario, it arises quite often in the course of human agency. Scotists become Thomists, Kantians become utilitarians, welfare state supporters become neoliberals – or vice versa, and all for the sake of a career. Top managers who consider strategy A to be the right one for their enterprise might use doxastic choice to become stalwart supporters of strategy B, which the executive team (staffed with epistemic peers) has decided to pursue. In all these cases, of course, the persons in question might believe that they have been convinced by reasons to change their views. However, if Terill is right, and modern cognitive science seems to vindicate him, people are driven by practical reasons, not to say advantages, to weigh epistemic reasons differently, even if no new epistemically significant information has been added to their reasoning processes. Moreover, the agents in question can adopt the new view without losing too much of their epistemic reasonableness. This is a notable point, regardless of whether one morally accepts self-interest as a justifying ground for the described process or whether one demands more lofty practical reasons. Manipulating one's opinions for the sake of advancement sounds sordid, but occurs often enough. Yet even if the legitimacy of such manipulations required them to be implemented for the sake of humanity or for the moral good, the underlying epistemological justification would remain the same. Against this background, it seems defensible to assume that a limited loss in epistemic virtue or optimality can be outweighed by practical reasons and thus render the process of belief change and a revised weighing of epistemic reasons overall reasonable.⁶³ Moreover, such a process and its outcome can be regarded as epistemically

⁶³Mele (1995), Chap. 5 seems to hold a similar general position, although not with produced assent to less probable propositions.

reasonable enough, that is, as conforming to the obligations we have in the epistemic sphere and giving this sphere its due weight, albeit not priority.

A thornier question is whether the entire process might also be modified so as to become an instance of *direct* doxastic voluntarism. There seems to be no need for that, of course. Most contexts in which a doxastic switch between reasonably tenable positions would make sense allow for a certain duration of this process. Terill's cases do not call for an exception. Protestants who consider becoming Catholics, scholars who want to switch to Thomism, or husbands who want to mitigate their jealousy usually have a certain amount of time for achieving success. They might need too much time to be successful under given circumstances, but that does not imply that a shorter period of transformation would have in principle been incompatible with indirect doxastic voluntarism. In short, the question whether direct belief change is possible is practically irrelevant and merely a philosophical conundrum. As such, however, it preoccupies philosophers. Terill did not pursue it at the main level of his analysis, but some remarks and his understanding of the will's freedom imply that he assumed the possibility of direct doxastic choice, as can be gleaned from his analysis of Aquinas' position. The Jesuit Terill expectably depicted Aquinas as a supporter of his position. The sincerity of this interpretation may, of course, be questioned, given the above mentioned case of the professor who becomes a Thomist for reasons of advancement. In any case, Terill ascribes a direct doxastic voluntarism to Aquinas. In the margins of his analysis, he wrote: "Saint Thomas thinks that conditioned by the will the intellect can here and now assent or dissent to the same object".⁶⁴ To an objection of Mercori, which in effect claims that this process was only possible through indirect means of doxastic manipulation, Terill answered that this implied playing with Aquinas' words. According to Terill, Aquinas' genuine position was that the choice of an opinion is free at any moment, even with respect to its specification (that is, assent or dissent).⁶⁵ The underlying explanation is that a free faculty, such as the will, is free to exercise its freedom instantaneously (*pro uno eodemque instanti*). Consequently, Terill believed that an agent could assent to a less probable proposition immediately through an act of the will.

⁶⁴Terill (1669), q. 9, n. 19: "S. Thomas sentit intellectum per voluntatem posse hic & nunc assentire vel dissentire eidem objecto".

⁶⁵Terill (1669), q. 9, n. 21: "Genuinus ergo sensus S. Thomae est, quod opinionum electio pro uno eodemque instanti sit libera quoad specificationem; quod solum intendimus." I do not think that Terill interprets Aquinas correctly here, see Schuessler (2012).

I must admit that I find this hard to swallow. It is difficult, not to say impossible, to imagine a person snipping her fingers and switching from believing in Scotism to believing in Thomism, or from Kantianism to utilitarianism. Perhaps Terill's directness claim should be rejected (and I also disagree with his interpretation of Aquinas). Yet I will in the following play its advocate to the best of my powers, that is, as far as it seems defensible to me from a benevolent perspective. To begin with, there is some latitude in the distinction between direct and indirect doxastic voluntarism (henceforth DDV and IDV). Anti-voluntarists use this latitude to focus the debate on doxastic voluntarism on particularly implausible forms of DDV. For instance, it is tempting but subtly misleading to assume that humans can switch beliefs just as easily as raising their hand or walking around.⁶⁶ Such basic actions are practically always successful under normal conditions, and doxastic voluntarists should not claim from the outset that the same is true for switching beliefs. As indicated, many actions that are not always successful are commonly regarded as voluntary, and therefore, voluntarists need not in this respect resort to overblown claims. A better analogy for doxastic choices than raising a hand are *Gestalt* switches. Take the familiar duck/rabbit example. Most persons can effortlessly switch between seeing duck/rabbit pictures as either a duck or as a rabbit. The switch is voluntary, you can do it at will. More difficult *Gestalt* switches are often not easy to achieve, some people sometimes fail in their attempts to switch a picture, and some people never even succeed. Nevertheless, most people can learn to perform even complicated *Gestalt* switches at will.

I take this to be instructive for voluntary changes of belief because they resemble *Gestalt* switches. Imagine a Kantian who is meticulously familiar with utilitarianism. She can perfectly simulate utilitarian reasoning and reproduce or foresee utilitarian arguments. In fact, the Kantian in question is as good at utilitarian reasoning as the best utilitarian himself. Sometimes playing *advocatus diaboli*, she effortlessly passes as a utilitarian until she reveals herself as a Kantian. On an unfortunate day, our philosopher is told that her application for a chair for Kant studies has been turned down. The Kantian is disappointed and she explicitly and consciously decides to become a utilitarian. How long does it take her to switch to utilitarianism? Of course, some of her beliefs concerning the superiority of Kantian arguments stand in the way. Yet Terill is probably right in assuming that she does not need to

⁶⁶For this analogy, see Alston (1989).

undergo a protracted process of belief revision to get rid of these beliefs. It suffices if they appear in a new light to her, that is, if she attributes a different weight to them. How long will it take for her to do that? As an accomplished simulator of utilitarianism, she might be able to do it almost instantaneously. The problem is rather to endorse the utilitarian perspective as her own. The more she has played the utilitarian before, the easier it will be. (And who knows, perhaps she will come to believe that her prolific simulation of utilitarianism was an indication of her true self, which had always been utilitarian). In short, it is at least conceivable that the Kantian in our example immediately endorses the new perspective as her own and thus becomes a utilitarian. People who are experts in imagining themselves in the shoes of others in an instant might simply by an act of will identify with the new shoes and refuse to switch back.

To be sure, not everybody is able to accomplish a rapid switch of beliefs, but presently, the question is only whether it is at all possible. If the story of the Kantian is right, it is possible and can be learned. Admittedly, all these considerations can be answered with the objection that they are not about truly instantaneous belief change, which is the hallmark of DDV. Imaginatively putting oneself in the shoes of another requires a modicum of time. Yet again, why should doxastic voluntarists accept a caricature of their doctrine that postulates absolute immediacy? Cognitive science tells us that decisions are not instantaneous. Time passes between an inwardly taken decision in the brain and the conscious realization that it has been taken, and, of course, implementing a decision to act takes some time as well. Plausible forms of DDV will therefore only maintain that doxastic choices can be realized in the time span required for a quick decision, and this can also apply to our Kantian. Moreover, it is often considered characteristic of IDV that it involves processes (e.g. streams of information) outside the agent. This is not the case here.

On the other hand, *medieval* IDV is closely associated with the direction of attention. That is, any belief change that depends on a suitable directing of attention away or towards an issue might be classified as IDV.⁶⁷ This may well be the case for our Kantian, because her simulation of utilitarian reasoning involves attention to specific tenets of utilitarianism at the expense

⁶⁷Nicolas Faucher has suggested in conference discussion that doxastic influences in which the intellect becomes active (again) in order to determine assent after a decision of the will should be called instances of IDV. This would render belief change induced by direction of attention indirect.

of alternative Kantian issues. Hence, the question whether DDV is compatible with a redirection of attention needs to be clarified before we continue. If 'direct' means 'without significant lapse of time and external support', compatibility should be assumed because attention can quickly be relocated by a person. Yet if 'direct' implies 'without moving the focus of attention', DDV and a voluntarism that relies on the direction of attention necessarily differ. In my view, what matters is whether an individual can bring about a belief change on her own without significant delay, input of new information, or external resources. This should be the core assumptions that characterize DDV, and they can in principle be satisfied in the 'Kantian turns utilitarian' case.

5. Conclusion

In this chapter, I offered a sympathetic discussion of probabilist doxastic voluntarism, above all with respect to Anthony Terill's approach. A sympathetic analysis is important not least to ward off a widespread misunderstanding that probabilism is rather obviously incoherent. James Franklin assumes as much in his influential *Science of Conjecture* (2001), and, of course, Catholic anti-probabilists made this claim from the outset. Rightly understood, however, probabilism is a coherent if controversial doctrine. For an appreciation of its coherence, it is best to venture beyond Franklin and look at advanced versions of probabilism in some detail. Terill's probabilism is well suited for this purpose. It was (in contrast to Caramuel's probabilism) widely accepted as a reference point by probabilists and anti-probabilists alike soon after its publication and throughout the eighteenth century. Terill's position, however, depends on the defensibility of at least the essential claims of his doxastic voluntarism. As indicated, his claim of immediate efficiency of the will in procuring assent may be sacrificed without much loss, although it can be defended in a mitigating reconstruction. The appropriateness of Terill's (but not exclusively his) distinction between commensurable and incommensurable reasons for belief or assent is more important, as is the tenability of his psychological claims concerning the impact of the will (or of our decisions) on our assessments of probability. Mainstream scholastic and modern epistemology assume that assent strictly follows (and should follow)

upon an assessment of reasons for assent. Terill, by contrast, claims that emotional or practically motivated inclinations to assent, including the act of assent itself, warp our assessments of probability. Modern cognitive science vindicates this view. However, Terill also assumes that nothing needs to be wrong with such causal chains. Initiating cognitive or doxastic processes which, without the intake of new information, lead to a belief in a proposition that was regarded as less probable at the beginning is, all things considered, justifiable for him. A crucial precondition of legitimacy is that a reasonable and well-informed other person (in modern terminology, a reasonable epistemic peer) could hold the proposition in question for true. This is enough to safeguard epistemic reasonableness, which is a matter of degree and thus can be sufficiently realized without being maximally realized. Asked whether this sophisticated position is incoherent, my answer is negative.

Nevertheless, we may ask what practical import this theoretical conclusion has. Under which realistic circumstances could Terill's theory be applied? The preface of his treatise offers a ready answer. The English Jesuit Terill was involved in attempts to re-Catholicize England during the Restoration under Charles II and James II. His probabilism would have assured prospective converts that exercising the Catholic faith together with an attitude of belief change would be successful, and it would have discouraged the argument that nothing can be done because faith is involuntary. More generally phrased, probabilism becomes a theory of belief change in Terill's hands. It is not only concerned with the choice of opinions as premises for actions or the adoption of other persons' opinions, but also proposes a theory and a justification for changing one's assent from one position tenable under reasonable disagreement to another.

Chapter 11: Assessing Probabilism – Between Liberty and Tutelage

After flourishing for more than half a century, probabilism became a highly controversial doctrine around 1650, and has remained just that ever since. Today, scholars who study seventeenth-century casuistry or moral theology are often divided over the general outlook of probabilism. Was it first and foremost a doctrine of liberty that fostered individual freedom of choice and a liberty to follow one's own opinion? Or was it an instrument to control individual consciences through authoritative opinions? The latter question relates to the claim that probabilism was an 'extrinsicist' approach, that is, an approach for which agents mainly relied on the opinions of others. It is not easy to sort out these issues, not least because probabilism had contrary uses, and the ways in which it favored liberty are not familiar to us today. The present chapter strives to achieve some order in the debate about the uses of probabilism by distinguishing between two perspectives. The first looks at probabilism as a normative construct, defined in manuals and treatises of moral theology. The second perspective deals with probabilism historically, that is, as applied in the real world of early modernity.

From the perspective of normative theory, it is indisputable that probabilism was a liberty-favoring doctrine in virtue of its principles of possessor and uncertain law. As interpreted by probabilists, both these principles protect the individual freedom of choice against controversial and uncertain legal or moral incursions.¹ It is not so apparent, however, that probabilism fostered a liberty to follow one's own opinion. Usually, we regard our own opinions as more probable than opinions we do not hold. Thus, there seems to be no need to revert to probabilism's permission to follow less probable opinions if an agent wants to follow her own opinion. Nevertheless, probabilism offers options for defending one's own opinion against countervailing claims of others (see Chapter 2), and it can be shown to justify

¹Anti-probabilists used the principle of possessor's advantage to morally obligate persons, assuming that in many cases 'law' was the 'possessor' of a title of compliance. Most probabilists, however, regarded agents as possessors of their freedom of choice. In contrast, the principle of uncertain law was regarded as liberty-favoring by both probabilists and anti-probabilists alike, the latter only limiting the principle's use.

an agent's willingness to uphold her opinion in relevant contexts. This point can also be made with respect to the probabilist solution to a confessor's predicament, who disagrees with the judgment of a penitent's conscience. According to probabilist regulations, the confessor had to (*ceteris paribus*) absolve penitents who held probable opinions, even if he considered these opinions to be wrong. This regulation clearly made it easier for a penitent to follow her own opinion.

It is often claimed, however, that probabilism—at least in actual historical practice—helped govern people through the opinions of authoritative others. This claim is sometimes associated with the view that probabilism was a product of Counter-Reformation Catholicism and as such, contributed to the tutelage of ordinary believers and the disciplining of human conduct. I will argue that although probabilism was used in some political contexts to justify obedience to rulers or the demands of the Catholic Church, this was in no way a general mode of application. In many other fields of conduct, be they political, economic, or concerned with the pleasures of life, probabilism loosened traditional moral bonds and offered agents greater freedom of choice. Whether these liberty-favoring options can be plausibly integrated into a narrative of predominant social disciplining will be discussed below.

In any case, the alleged extrinsicism that probabilism displayed in practice is not proof that this doctrine facilitated the tutelage of moral agents. Extrinsicism can have different meanings and might be merely understood as a label for the justification of an agent's conduct through the opinions of others. We would hardly assume today that an animal rights activist, who follows the views of an animal rights theorist, is not voluntarily following her own agenda. Accordingly, it should not be regarded as evidence of tutelage when an early modern agent followed a moral theological opinion that suited him or her.² On the whole, probabilism is therefore best characterized as a basically liberty-favoring doctrine with contrary uses, but one which in many cases fostered liberty to follow one's own opinion.

²Tutino (2018: 86) makes the same point with respect to the debate on global warming.

1. Modern views on probabilism: Liberty, tutelage, extrinsicism

Some present-day authors view probabilism as a bulwark of individual conscience and a milestone on the road towards liberty of opinion, whereas others consider it to be an instrument for the tutelage of conscience through the opinions of others. Still others situate themselves somewhere in between these two extremes. Let us take a short tour of the different camps.

The historian Jean Delumeau believes that General De Gaulle could have used probabilism to defend his hostile attitude towards the Germans occupying France.³ A large majority of French moralists at the time considered surrender and collaboration as the probably most appropriate course of action in the face of Nazi occupation. De Gaulle certainly regarded his own opinion as the most probable, but it was less probable with respect to general moral opinion. Probabilism would have allowed De Gaulle to endorse his less probable, albeit heroic, stance. This might seem like a straightforward modern example of the application of probabilism in the service of an individual's autonomy of conscience. Indeed, Delumeau uses the phrase 'autonomie de la conscience' in a related context.⁴

Robert Maryks argues that probabilism allowed agents (though not specifically De Gaulle-type agents) to follow the judgments of their own conscience.⁵

“Establishing the liberty to follow one's own judgment of conscience instead of *deponere conscientiam* in order to follow the law or the confessor's opinion was an important shift that characterized the transition from medieval ethics into a modern mentality characterized by a higher degree of subjectivity, responsibility, and interiority.”

Maryks does not claim here that the agents in question can insist on their opinion in the way assumed by Delumeau. However, he contrasts following one's judgment of conscience with *deponere conscientiam*, abandoning one's judgment of conscience and replacing it with a more suitable one. The more suitable judgment would in all likelihood originate from an authority or from one's confessor. It would also most likely favor the law, that is, adherence to

³Delumeau (1990: 139).

⁴Delumeau (1990: 143).

⁵Maryks (2008: 117).

moral constraints in cases of uncertainty or moral disagreement. Maryks claims that probabilism thus has a modernizing impetus, leaving medieval modes of moral guidance behind and ushering in more subjectivity and internal choice.

Several renowned scholars, by contrast, view probabilism primarily as an ‘extrinsicist’ doctrine.⁶ As discussed below in Section 3, ‘extrinsicism’ can have several different meanings, but generally refers to moral justification through the opinions of others (extrinsic justification). In some cases, the claim that probabilism was extrinsicist amounts to perceiving it as an instrument of tutelage, that is, a tool by which agents were brought to follow the opinions of (mostly powerful) others instead of their own. Miriam Turrini seems to assume this by characterizing probabilism as an instrument that facilitated the guidance of a penitent’s conduct through the opinions of others.⁷ Gerhard Otte explicitly refers to probabilism’s favoring of freedom in the face of uncertain laws, but nevertheless regards probabilism as an instrument of moral tutelage that was ill-disposed towards ethical self-reliance.⁸ Others display a less clear-cut or different understanding of extrinsicism. Thomas Deman used the word ‘extrinsicism’ (French: *extrincésisme*) to describe Bartolomé de Medina’s—in his opinion—confusion of propositions that are considered to be more probable by most others with propositions that are more probable even from an agent’s point of view.⁹ Albert Jonsen and Stephen Toulmin do not use the term ‘extrinsicism’, but indicate a preeminent role of extrinsic probability when they contend that “intrinsic probability began to wither” in the shadow of a vast number of quotable authorities in seventeenth-century casuistry.¹⁰ Jean-Louis Quantin inveighs against the assumption that probabilism might have supported the autonomy of individual consciences and calls such a view anachronistic.¹¹

⁶I do not count Daniel Schwartz as a full extrinsicist here, although some remarks in Schwartz (2014) point in this direction.

⁷Turrini (1991: 147): “Dopo Medina si giungerà ben presto all’estrinsecismo, ad un sistema che affida la condotta morale alle opinioni ‘esterne’, di altri, dei ‘dottori’”.

⁸Otte (1973: 300): “Der Probabilismus ist zwar eine Theorie über das Verhältnis von Bindung und Freiheit, aber er entscheidet auch da, wo er rechtlich gesehen gegen die Bindung entscheidet, ethisch gesehen nicht für die Mündigkeit. Er ist kein Vorläufer ethischer Aufklärung, sondern Spiegel und vielleicht auch Stütze einer Welt, in der der Mensch sich führen lassen soll”.

⁹Deman (1936: 468). See also Deman (1936: 549): “La position extrinseque de la probabilité qui fut la postulat initial du probabilisme”.

¹⁰Jonsen and Toulmin (1988: 168).

¹¹Quantin (2002: 912): “Il est surprenant qu’il se soit trouvé, non seulement des théologiens, mais même des historiens pour soutenir que le probabilisme des temps modernes fondait ‘l’autonomie de la conscience optant en solitaire pour une solution ‘moins probable’ ... Est-il besoin de dire

Jean-Pascal Gay concurs with Quantin in regarding attempts to see probabilism as a vehicle on the road to the modern discourse of autonomy as ill-guided:¹²

“As Jean-Louis Quantin has pointed out, probabilism was first and foremost an extrinsicism. The understanding of Delumeau, and, in many ways, Maryks, who see probabilism as the affirmation of some sort of autonomy of conscience, supposes a very contemporary understanding of early modern moral deliberation and of the moral grammar available to the individual in early modern times.”

Stefania Tutino paints a nuanced picture of probabilism as a balance between tutelage and liberty. She emphasizes that major probabilists like Francisco Suárez, Gabriel Vazquez, and Tomás Sanchez attempted to strike a balance between the constraining and liberty-oriented tendencies of probabilism.¹³ These probabilists tempered the principles of the possessor’s advantage and of uncertain law by limiting their application and safeguarding moral obligation. At the same time, these probabilists loosened the rigid application of moral rules, a rigidity that (as Tutino claims) had been the norm until the rise of probabilism.¹⁴

There is no need to disagree with the assumption of careful balancing. No probabilist known to me tried to subvert Christian morality or generally liberate human beings from legal or moral obligations. They strove to maintain a delicate balance between the freedom of choice and obligation, (negative) liberty and strictures of law. Moreover, there is much to be gained from studying how this balancing act was accomplished by specific probabilists, and, in fact, anti-probabilists, most of whom also attempted to carefully balance their own positions. It should not be forgotten, however, that different attempts to harmonize liberty and law (or freedom and obligation) led to widely differing outcomes in early modern Catholic moral theology. Balancing does not preclude that some authors’ balanced views leaned more towards freedom and others more towards obligation. This is what early modern observers noted by calling probabilism ‘liberty-favoring’

qu’une telle problématique est radicalement étrangère aux théologiens probabilistes du XVIIIe siècle”?

¹²Gay (2012: 139). I use ‘extrinsicism’ in English here instead of ‘extrinsecism’.

¹³Tutino (2018), p. 70 for Suárez, p. 85 for Gabriel Vazquez, p. 103 for Tomás Sanchez.

¹⁴For my differing view on ‘medieval tutorialism’, see Chapter 1.

and anti-probabilism ‘law-favoring’ (see below). Tutino’s insistence on balancing thus does not answer the question whether probabilism favored liberty or tutelage more strongly.

Tutino regards my liberty-oriented answer to this question as being excessive. In particular, she objects to my association of probabilism with the prehistory of liberalism.¹⁵ It is always risky, of course, to link modern doctrines to older ones that emerged in non-modern contexts. However, I never styled probabilism as a precursor of liberalism. Still, probabilism was ripe with principled (albeit balanced) defenses of freedom of choice and negative liberty. It is therefore, in my view, legitimate to link probabilism to the rise of negative liberty and liberalism in European intellectual history. At the very least, this assumption helps explain how Catholic versions of liberalism could arise. Otherwise, the pre-Vatican II Catholic fight against liberalism and the concomitant view of Catholic intellectual history might mislead modern observers to believe that no common ground existed between liberal tendencies and Catholic theology before the French Revolution.¹⁶

I do admit, however, that Delumeau’s application of probabilism to De Gaulle misconstrues the doctrine. Delumeau’s attempt to invoke probabilism to defend a Luther-like attitude of ‘Here I stand, I can do no other’ renders the doctrine superfluous.¹⁷ De Gaulle and Luther had strong convictions of conscience. The requisite norm would therefore be permission to follow the opinion the agent considers to be at least as probable, but more likely to be certainly or evidently true. Permission for competent reasoners to follow such an opinion—except if it conflicts with the tenets of Christian faith—was already accepted in the Middle Ages. Hence, De Gaulle had no need to resort to probabilism; he could have defended his case based on medieval norms, assuming that it had no repercussions for his faith.

The concept of autonomy that Delumeau invokes is also best avoided with respect to probabilism. The lack of a unified modern concept of autonomy is not the only problem with inscribing probabilism in the history of modern autonomy. First and foremost, a distinction must be made between political and individual (or personal) autonomy, the two most prominent areas in which a discourse of autonomy has emerged in the modern era (for the present purposes, this refers to the era after the French Revolution). Yet

¹⁵Tutino (2018: pp. 69) referring to Schuessler (2006b).

¹⁶As an antidote against this erroneous view, see Lehner (2016).

¹⁷Here I agree with Quantin (2002: 912).

even a restriction to individual autonomy hardly leads to a manageable ambit. The word ‘autonomy’ means self-legislation in Greek, and can be extended to refer to self-determination or self-guidance.¹⁸ An autonomous subject thus determines its own course, conduct, and thinking. Probabilism relates to this root of individual autonomy by emphasizing the individual liberty of choice (see below), be it with respect to outward actions, the adoption of opinions, or the inner workings of the will. Insofar, the doctrine contributed to a positive valuation of liberties that became stepping stones on the path towards modern notions of autonomy. This, however, is only one side of the medal; we must also recognize that probabilism often stands in opposition to modern concepts of autonomy.

This seems to be most obvious with respect to Kantian concepts. For Kant, human beings are autonomous because they are able to generate an indubitable moral law, which for Kant is characterized by the Categorical Imperative. Probabilism, by contrast, postulates freedom from the demands of merely uncertain laws. This probabilist freedom is not a freedom of self-legislation, and therefore not conducive to Kantian autonomy.

Other modern conceptions of autonomy hardly suit probabilism better than the Kantian one. Sarah Buss’s survey article in the *Stanford Encyclopedia of Philosophy* distinguishes four contemporary clusters of approaches to personal autonomy.¹⁹ The first cluster is coherentist and centers around the idea that an autonomous individual’s attitudes correspond to one another and to attitudes that characterize something like the agent’s true self. A second cluster focuses on the assumption that autonomous agents are appropriately responsive to reasons. A third account requires autonomous individuals to be appropriately responsive to their own reasoning. The difference is that reasons might be external to an agent, whereas his or her own reasoning belongs to an agent. Finally, a fourth cluster of approaches to personal autonomy links it closely to issues of metaphysical freedom. Agents are not autonomous from this perspective if their actions and thoughts are determined by causes over which the agents have no control. These different modern concepts of individual autonomy (and there are more) are only listed here to show that probabilism is not closely intertwined with them. Modern concepts of individual autonomy address specific questions of self-governance, which

¹⁸See Buss (2013). On the rise of the concept of autonomy in early modern moral philosophy, see Schneewind (1998).

¹⁹See Buss (2013).

simply were not raised by scholastic probabilists, or at least not in their discussions of probabilism. Insofar, Jean-Louis Quantin is right in refuting that probabilism fostered individual autonomy in any of the prominent modern meanings. We should therefore abandon claims that probabilism fostered autonomy.

Robert Maryks' assertion that probabilism allowed agents to follow the judgments of their own conscience does not resort to the concept of autonomy, and I will defend it below in Section 2.2 demonstrating that—from a probabilist point of view—confessors were called up to accept probable opinions of penitents, even if the confessors themselves considered the opinion to be wrong and illicit. However, Maryks contrasts this entitlement or liberty with a mandatory deposition of conscience (*deponere conscientiam*) in favor of the confessor's view (see above quote). I do not agree with Maryks that this was the only alternative. Contrasting the entitlements granted by probabilism with a deposition of conscience fails to account for the fact that probabilists themselves often speak of *deponere conscientiam*.²⁰ In any case, the question what *deponere conscientiam* meant to probabilists, in contrast to its meaning for medieval scholastics, would require a detailed investigation of sources, which would lead us too far away from our present concerns.

We should also be cautious with respect to claims that probabilism nourished the subjectivity or interiority of agents. Whereas medieval scholastics focused on endoxical probability, moral theologians of the Baroque era were the first to accept intrinsic probability as a pillar of the use of opinions. Moreover, the principles of uncertain law and of the possessor's advantage protected an inner domain of choice against less than certainly valid moral infringement. This in some way corresponds to fostering subjectivity and interiority, but both terms have further connotations that far exceed intellectual self-reliance or freedom of choice. It therefore seems best to abandon them to avoid misunderstandings.²¹

We have now finally come to the claim that probabilism fostered freedom to follow one's own moral judgment. In the above quoted passage, Quantin—and to some extent also Gay—refers to Delumeau's overstated example. There should be no discussion that the De Gaulle case is misleading and that modern autonomy was not specifically fostered by probabilism. It

²⁰This point was made by Jean-Pascal Gay in discussion.

²¹For related reasons, Gay's claim of a 'subjectivist turn' in Tirso Gonzalez's anti-probabilism (Gay 2012: 138) should also be avoided.

should be clear, however, that a dissociation from autonomy does not necessarily impair the more general claim that probabilism contributed to the rise of individual liberties, and in particular the liberty to follow one's judgment of conscience. An important distinction should, however, be made in the discussion of this claim. It can, on the one hand, be assessed from the perspective of probabilism as a normative theory, as described in manuals and treatises of moral theology. This is largely the perspective assumed by Maryks. On the other hand, it is also possible to approach it from the perspective of history, that is, the effects of probabilism on the historical and intellectual developments in the early modern era. Quantin, Gay, Turrini, and Otte are historians, and they seemingly judge from the perspective of their discipline. This difference in perspective needs to be heeded to avoid confusion. We will therefore first assess issues of liberty, tutelage, and extrinsicism from the perspective of normative theory (Section 2), and then turn to a historical perspective (Section 3). Thereafter, we will discuss how both perspectives relate to each other (Section 4).

2. The perspective of normative theory

Assessing probabilism from the perspective of normative theory is tantamount to looking at its principles and rules and asking what they stand for. The first thing to highlight is that probabilism was unequivocally characterized as a liberty-favoring doctrine by both friends and foes alike. It is more difficult to show, however, that it also specifically fostered liberty to follow one's own moral opinion, a complication that is addressed in this section. Next, I will discuss in some detail that probabilism did not condone tutelage by confessors, but on the contrary, required confessors to accept a plurality of opinions. Probabilism called upon confessors to absolve penitents who held or followed probable opinions, even if the confessor considered these opinions to be wrong. Finally, the question of a bias in favor of extrinsic opinions will be discussed, not least with respect to the most pertinent case, that of *illiterati* or ordinary people.

2.1 Probabilism as a liberty-favoring doctrine

Probabilism was generally known in its time as a liberty-favoring (*libertati favens*) or pro-liberty (*pro libertate*) approach. This is most amply documented in the context of permissible choices in different constellations of probable opinions. According to Hermann Busenbaum (1600–1668), one of the most influential probabilists of the Baroque era, it was not required of good Christians in doubt to follow the morally safer course (*tutior pars*), they could also embrace a course that favored their own liberty (*faventem suae libertati*).²² Busenbaum contrasted liberty and obligation, the latter depriving agents of free choice. Whoever wants to deprive an agent of her liberty by imposing an obligation, wrote Busenbaum, bears the burden of proof for the obligation's validity. The famous probabilist Juan Caramuel y Lobkowitz (1606–1682) concurred.²³ Human beings are in the certain and legitimate possession of their liberty, he declared. Precepts deprive them of their liberty. To achieve this, precepts need to be certain (i.e. certainly valid). Probabilism was thus regularly described as a doctrine that favored liberty to act at will in the face of uncertainly valid restrictions. Some authors used the terms 'pro liberty' (*pro libertate*) and 'pro law' (*pro lege*) to characterize the available choices.²⁴ It is important that these characterizations were used by both probabilists and anti-probabilists alike. Thus, there was no controversy about probabilism favoring liberty over legal obligation under uncertainty.

This is not to say that this aspect of probabilism was always highlighted in definitions of probabilism. When the label *probabilismus* became current towards the end of the seventeenth century, it was often (as it is today) associated with a doctrine permitting the choice of less probable and less safe

²²Busenbaum (1652), lib. 1, tract. 1, cap. 2, dub. 3: "Respondeo. Qui in dubio constitutus, post diligens examen se nequit resolvere, non tenetur semper eligere partem tutiorem, sed potest amplecti partem faventem suae libertati (etiam minus tutam) dummodo sit in possessione suae libertatis; iuxta illud axioma; in dubio melior est conditio possidentis. [...] Proindeque volenti obligationem imponere, quae libertate privet, incumbit probatio obligationis contractae". For *libertati favens*, see also Banholzer (1694), art. 6, or the full title of Ressler (1713).

²³Caramuel (1675), pars 1, n. 294: "At in suae libertatis certa & legitima possessione homo est:& ipsa per praeceptum privatur. Ergo homo non potest certa& legitima libertatis possessione privari, nisi ob praeceptum certum".

²⁴For *pro libertate* or *pro lege* see, e.g., De Angelis (1667), lectio 3; Fagnani (1765), n. 211; Palanco (1694), q. 28.

opinions, without mentioning liberty or law. Nevertheless, the nexus between probabilism and liberty can still be gleaned from remarks about probabilists or probabilism. The anti-probabilist Francisco Palanco (1657–1720), for instance, discussed whether the possession of one’s liberty in practice sufficed to reasonably resolve doubts. He then raged against the ‘famous probabilist Caramuel’ who claimed that everything that was not certainly prohibited was actually permissible.²⁵ The anti-probabilist Jean Gisbert (2nd half of 17th c.) characterized a benign version of probabilism (*probabilismus benignus*) as permitting the choice of a less probable opinion which favors liberty.²⁶ Finally, Alfonso de Liguori (1696–1787), eminent moral theologian and like Aquinas, doctor of the Catholic Church, wrote that anti-probabilists always claimed law to be ‘in possession’ (i.e. to be favored in doubt), whereas he sometimes assumed law and sometimes liberty to be in possession, namely if a law was insufficiently promulgated.²⁷

The most prominent grounds for probabilism’s liberty-favoring image were the principles of possessor and uncertain law (see Chapter 2), which claimed that a person who is competent to judge legal or moral issues remains *prima facie* free to choose between alternatives, as long as she is not restricted by legal or moral norms whose validity has attained a sufficient degree or level of certainty. In the underlying antagonism between liberty and law (that is, normative constraint), probabilism sides with liberty by denying binding force to constraints that are only more probably valid than not. It deserves to be noted that, as understood by most probabilists, the principles of possessor and uncertain law postulate negative liberty, that is, liberty from infringement. Negative liberty became particularly important for the modern understanding of liberty. Isaiah Berlin (1909–1997) identified it as a core element of modern liberalism, harking back to Benjamin Constant’s (1767–1830) ‘liberty of the moderns’.²⁸ It seems surprising that mere negative liberty, justified by a principle of possession and thus a property right, acquired an important role

²⁵Palanco (1694), q. 21: q. 21: “An titulus possessionis propria libertatis sit circumstantia rationabiliter solvens dubium in praxi? ... statim solvi potest dubium pro parte mea, quia possideo meam libertatem & *beatus, qui possidet*. Hoc fundamento insignis Probabilista Caramuel eo usque pervenit, ut diceret, omnia omnibus licere, quae certo prohibita non haberentur”.

²⁶Gisbert (1703), q. 1, praemitto 3: “praejudicasse contra probabilismum rigidum, in favorem benigni: statui enim in theologia nostra; licitum esse, sequi minorem probabilitatem faventem libertati, in concursu majoris, praecepto faventis”.

²⁷Liguori (1779), lib. 1, tract. 1, n. 26: “Quaestio tantum esse potest, an in quolibet dubio morali possideat lex, aut libertas. Antiprobabilistae dicunt semper legem possidere; nos vero dicimus, aliquando possidere legem, aliquando libertatem, nempe cum lex non est adhuc promulgata”.

²⁸See Berlin (1969) and Constant (1988).

in seventeenth-century Catholic moral theology, but there it is, unencumbered by the future antagonism between Catholic thought and modern liberalism, which was not yet a concern in the Baroque era. In any case, probabilism's love affair with negative liberty shows that probabilism contributed to the history of modern concepts of liberty.

This is not to say that probabilism specifically contributed to the liberty of conscience as it is often understood today. 'Liberty of conscience' often signifies liberty to hold religious or moral beliefs that deviate from the mainstream or incumbent religion. It is thus a liberty to be Protestant or Catholic, Christian or non-Christian, theist or atheist. The most prominent root of liberty of religion is Martin Luther's call for a liberty of conscience (*libertas conscientiae*) for his followers.²⁹ In the early modern era, this did not imply a similar liberty for all who thought or believed otherwise. In any case, probabilists, as good Catholic theologians, certainly did not acknowledge liberty of conscience in Luther's sense for Protestants. Nevertheless, Catholics also postulated a liberty of conscience. The Jesuit Pedro Hurtado de Mendoza (1578–1641) distinguished two antagonistic narratives of *libertas conscientiae*, one good, the other bad.³⁰ The good one was, of course, the Catholic freedom of the inner workings of conscience based on freedom of will. The bad narrative was the Protestants' liberty of conscience to practice their religion in public without interference by secular rulers. In light of these considerations, probabilism can be said to offer a specific interpretation of the Catholic liberty of conscience, which is not the liberty highlighted by the modern master narrative of religious toleration, but a liberty of conscience, nonetheless.

The liberty postulated by the basic principles of probabilism is one of choice, not immediately one of opinion. Freedom of choice, as conceived by scholastic probabilists, implies freedom to choose between opinions (as premises of action, not necessarily including assent). Yet such freedom allows an agent to distance herself from her own opinion as much as to embrace it. That is, probabilism legitimized acting against one's own moral opinion if the pursued counter-opinion was at least probable. Moreover, some advanced forms of probabilism allowed agents to switch their assent from one probable opinion to another by means of doxastic voluntarism. This emphasis on doxastic choice shows that probabilism liberated agents from their opinions

²⁹See, e.g. Guggisberg (1991); Lecler (1960); Lohse (1974); Mout (2007).

³⁰Hurtado de Mendoza (1631), *De fide*, disp. 79. See also the broad discussion of *libertas conscientiae* in Bresser (1638), lib. 1, cap. 23-27, in which a distinction is also made between the Catholic inner liberty and the outer liberty of conscience of tolerating 'heretic' religious views.

as much as it helped to defend them. Yet the endorsement of choice did not, of course, preclude the defense of one's own opinion. It is important to realize that probabilism could, in fact, be used for a peculiar low-profile—but effective—defense of one's own opinion (see Chapter 2). In virtue of their doctrine, the users of probabilism could dodge justificatory battles over whose relative ranking of probabilities was right, given that all sides agreed at least on the basic probability of discussed alternatives. According to probabilism, nobody had to justify their opinion as the most probable, it sufficed to defend them as reasonably tenable. This was important because it is epistemologically much less demanding to justify opinions as tenable by reasonable and well-informed persons than to vindicate an opinion as superior to all others. Hence, by offering an effective low-profile defense, probabilism indeed contributed to an agent's liberty to follow his or her opinion.³¹

A second means by which probabilism more than other approaches fostered the liberty to follow one's own opinion was the expansion of the set from which opinions could be chosen. In virtue of the probability of its content, this set represented a 'space of the reasonable'. Many more opinions could be regarded as probable under the auspices of probabilism than under traditional scholastic assumptions or alternative early modern doctrines for the use of opinions. This is particularly true for moral opinions, a point documented by the accusation of laxism against probabilists. Hence, the set of opinions from which agents could choose (with a little help from experts, if necessary) increased and they consequently had more liberty to follow their judgments of conscience because a higher number of such judgments were likely to correspond to an opinion that was acknowledged as probable. The underlying claim is that an agent's liberty increases *ceteris paribus* with the set of choices available to him or her.

So far, probabilism's liberty-favoring tendencies have been associated with its principles and general effects on a 'space of the reasonable'. It is, however, also possible to find cases in which probabilism fosters an agent's freedom to pursue a preferred probable opinion against opposition by authorities. This, for instance, can be demonstrated with respect to regulations

³¹At this point the question may arise how probabilists reacted to the call for a *libertas philosophandi*, which arose in the seventeenth century. To the best of my knowledge there is no respective discussion in the sources. However, a *libertas opinandi* is sometimes addressed (e.g., Lacroix 1707, lib. 1, tract. 1, q. 40, §4), but in the sense of a (inner) doxastic freedom to assent or not.

on the conduct of confessors who disagree with the probable opinion of a penitent.

2.2 The duties of a confessor: Absolution against his own moral views

The question whether a confessor is entitled to impose his best moral judgment on a penitent or whether he ought to accept a penitent's divergent, reasonably defensible moral views is of great significance for the present inquiry. It shows how far a pluralism of opinions was instituted on a normative level in Catholic moral theology. As already stated in the introduction to this book, probabilists claimed that confessors ought to generally accept probable opinions of penitents and absolve them thereupon. In the present section, the respective role of confessors will be outlined in greater depth.³²

First, let us recap that in the present context, 'moral' refers to the avoidance of sin and that a confessor had a double task in this respect. He was called upon to retrospectively judge sinful behavior as well as prospectively help agents steer clear of sin. In both cases, the confessor had to assess the truth, probability, and moral safety of opinions. Since many factual opinions could impinge on matters of faith and morality, this assessment did not exclude judgments on issues of science, medicine, arts, etc. Penitents, on the other hand, may want to choose their own opinion. Under these premises, a clash could easily arise between a confessor who considered opinion p as more probable than conflicting opinion q , and a penitent who wished to endorse q or had endorsed it. Let us assume that the confessor and penitent disagree with respect to the moral permissibility of a business transaction, whose permissibility p denies whereas q postulates it. Both opinions are recognized as probable by the confessor and the penitent. The confessor believes that p is more justified than q , and that it is thus more probable. He also believes that p is true. Should he then absolve the penitent, even if the latter is unwilling to abide by p ? Or ought the confessor honor the probability of q , that is, its defensibility by experts, and absolve penitents who insist on following q ?

³²Turrini (1991: pp. 170) also discusses the case of a confessor in some detail, who disagrees with a penitent. She notes that the confessor was called upon to absolve penitents who held probable opinions, even if they were less probable from the confessor's point of view. It seems surprising that she nevertheless depicts probabilism as an instrument of tutelage.

Medieval scholastics had already pondered related questions concerning confessors in doubt about a penitent's opinion. Bishop Antonino of Florence (1389–1459), for instance, wrote that a confessor who doubted the moral legitimacy of an action ought (*debet*) to absolve a penitent who followed a probable opinion of a doctor (i.e. a renowned scholar).³³ Note the strong wording. The confessor has a duty to absolve. The legalistic bent of late medieval and early modern moral theology did not trust the prudence of confessors but protected penitents with an entitlement that confessors were told to respect. However, it is relevant that the confessor, not the penitent, is in doubt about the right course of action (otherwise, the penitent would have to follow the safer opinion). As outlined in Chapter 1, by Antonino's time, doubt was certainly understood in the confessional as equally balanced uncertainty. A confessor who regarded an opinion to be true and more probable than its negation was therefore not in doubt about it. That is, the above outlined case of a confessor who considers his own opinion as true and more probable differs from Antonino's. Nevertheless, Antonino's case is instructive, not least because he offered a relatively common solution. It was also endorsed by contemporaries like Johannes Nider and rooted in the writings of famous predecessors such as Pierre de la Palud and Godefroid de Fontaines.³⁴ Interestingly, Godefroid spoke about opinions that were tolerated by the Church (*opinionones contrariae quae ab ecclesia tolerantur*), thus creating a link to the discourse of toleration, whose historical investigation ought to also include acts of toleration in the confessional. In any case, a significant stream of medieval theology sided with the penitent if his or her favored opinion could be shown to be probable and if the confessor remained in doubt.

Konrad Summenhart (1450–1502) took a further step in the penitent's favor. He told ordinary confessors to absolve agents who followed an opinion that was controversial among scholars, even if the confessor held the opposite opinion on probable grounds.³⁵ An ordinary confessor was *ex officio* responsible for a penitent, whereas extraordinary confessors might agree or refuse to hear confession by a person who did not belong to their flock. In Summenhart's view, an extraordinary confessor might thus refuse to hear the

³³Antonino of Florence (1582: 70), I, tit. 3, cap. 10.

³⁴See Palud (1493), q. 4, dist. 17; Fontaines (1928: 264), quodl. 9, q. 16; Nider (1532), pars 3, cap. 12. Turrini (1991: pp. 170) does not mention that these medieval scholastics only referred to the case of doubt.

³⁵Summenhart (1580: 564), tract. 7, q. 100.

penitent rather than to absolve against his own opinion. Even an extraordinary confessor was, however, entitled to absolve if he remained in doubt about the permissibility of an action. An ordinary confessor, by contrast, was bound by his official responsibility for the penitent to accept the latter's opinion. Summenhart wrote that an ordinary confessor was permitted to absolve against his own opinion of what is most likely right or wrong, adding that the confessor otherwise ran the risk of violating justice. In other words, an ordinary confessor in effect had a duty to absolve a penitent whose action was probably permissible, even if the confessor himself considered the action to be wrong. It is clear that the confessor in this case considers his own dissenting opinion as more probable than the penitent's opinion. In consequence, we see that even prior to the rise of probabilism, eminent early modern moral theologians required confessors to accept probable opinions of penitents against their own moral views. Summenhart, however, also wrote that the confessor should, in any case, advise the penitent to choose the safest action if he considered the latter's intent to be morally illicit. Yet this is advice that could be rejected by the penitent without committing sin.

It seems that the confessor's duties in the outlined case were much discussed in the sixteenth century, but without a clear trend before the emergence of probabilism. Influential authors like Martín de Azpilcueta (Dr. Navarrus, 1492 –1586), for instance, remained vague about the question whether a confessor had to absolve against his own opinion or only when in doubt. Azpilcueta quoted Antonino and thus, narrowly interpreted, did not venture beyond absolution in doubt.³⁶

2.2.1 Probabilists on the confessor's duty to absolve

With Bartolomé de Medina (1527–1580), we have arrived at probabilism. Medina basically followed Summenhart's solution.³⁷ A confessor ought (*debet*) to absolve penitents who follow a probable opinion, even if the confessor holds the opposite view. Note that Medina did not add anything here to Summenhart's solution. However, Medina favored the penitent further by dropping the distinction between ordinary and extraordinary

³⁶Azpilcueta (1593), cap. 26, n. 3. See Tutino (2018: 32, 41) for a broader interpretation of Azpilcueta's treatment of the confessor's problem and for Medina's treatment.

³⁷Medina (1580), p. 178.

confessors. All confessors ought to respect the probable opinions of penitents. Medina did not explicitly refer to the greater probability of the confessor's view, but Luis Lopez, a contemporary of Medina and an early probabilist, explicitly addressed the underlying problem of whether a confessor ought to absolve a penitent with a probable opinion against his own more probable opinion. Lopez ascribed a positive answer to Medina.³⁸ He also asserted that the confessor should tolerate (*tolerari*) the opinion of the penitent.

Gabriel Vazquez (1549–1604) and Juan Azor (1535–1603) offer useful overviews of the pre-probabilist sixteenth-century debate on the duties of a confessor to absolve against his own moral views.³⁹ It should suffice here to discuss one of them, giving alphabetical preference to Azor. A first position taken by Adrian Florensz of Utrecht (1459–1523), the later Pope Hadrian VI, allows the confessor to absolve a penitent who prefers a probable (moral) opinion which the confessor deems wrong, unless harm for third parties follows from the penitent's opinion. However, the confessor should refuse absolution if he believes that his refusal will motivate the penitent to change his view. If the confessor is certain that the penitent will resolutely stick to his probable opinion, he can absolve him. A second position highlighted by Azor is championed by Antonino of Florence, Silvester Mazzolini de Prierio, and Summenhart.⁴⁰ It calls for ordinary confessors, but not extraordinary ones, to absolve penitents with a probable opinion. A third position according to Azor, which is not represented by any notable author (Vazquez links it to the theologian Juan de Medina – not to be confused with Bartolomé de Medina, the inventor of probabilism), specifies that an ordinary confessor must absolve, but an extraordinary one should not absolve if it entails a risk of harming third parties. Without such risk, an extraordinary confessor should also absolve a penitent who follows a less probable opinion in the confessor's point of view. Finally, a fourth position held by Domingo de Soto, Azpilcueta, and shared by Azor himself, states that ordinary and extraordinary confessors should absolve in the described case, regardless of any impending harm, because the confessor owes this to the penitent.

Azor's overview documents how differentiated the debate on a confessor's duty to absolve in cases of moral disagreement with a penitent had become by his time. The trend was now clearly leaning in the direction of an

³⁸Lopez (1592: 511), tom. 1, cap. 120.

³⁹Vazquez (1606), q. 19, disp. 62, cap. 7; Azor (1602), tom. 1, lib. 2, cap. 17, q. 10.

⁴⁰As outlined, I do not think that Antonino of Florence and Summenhart held the same position, but Azor apparently thought they did.

increasingly tight regulation of the confessor's conduct, imposing a duty on him to accept a penitent's position that was at least probable. Vazquez placated confessors by conceding that the refusal of an extraordinary confessor to hear the confession of a penitent with opposite probable moral views need not be a *mortal* sin. Yet Vazquez also believed that confessors must absolve penitents with probable opinions. It is conspicuous that the representatives of the listed four positions are all, with the exception of Antonino of Florence, early modern scholastics. That is, the respective debate seems to have unfolded in earnest in the sixteenth century. Probabilists, such as Medina, Vazquez, and Azor, propagated a most favorable position for penitents. A confessor might advise and warn against endorsing a probable position which the confessor considers less probable or even wrong, but if the penitent insisted, the confessor had to comply. The penitent was entitled to follow a probable opinion regardless of the confessor's view, who was bound to respect it. Otherwise, the confessor committed a sin, the graveness of which was, however, controversial.

The solution reached at the end of the sixteenth century and represented by Azor and others was upheld by probabilist moral theologians throughout the seventeenth century, usually with some further differentiation or modification. Tomás Sanchez (1550–1610) elaborated on the important difference between being allowed or having to absolve dissenting penitents.⁴¹ The role of timing was also discussed. Sanchez pointed out that all kinds of confessors had to absolve penitents who held probable opinions if they had heard their confession. Yet extraordinary confessors might refuse to hear the confession of a dissenting penitent out of religious or moral zeal. In this case, the confessor was often excused of committing a sin. At any rate, Sanchez emphasized that a penitent was not required to follow a confessor's opinion more than any other person's opinion. At least, as Sanchez contends, this was to be assumed if the penitent could competently judge the probability of the opinion he wished to adopt. Otherwise, a confessor had the task of informing an uninformed penitent about the probability of his preferred opinion, because the confessor *ex officio* had to act with the penitent's good in mind. Note Sanchez's presupposition that the penitent's good is not to be paternalistically judged by the confessor, but to be gleaned from the agent's preferences in combination with a pluralism of reasonable opinions which the confessor was bound to respect. This was a standard assumption among probabilists.

⁴¹Sanchez (1614), tom. 1, lib. 1, cap. 9, n. 27ff.

During the heyday of probabilism in the first half of the seventeenth century, it remained contentious how gravely a confessor, who violated his duties to tolerate probable opinions of penitents, sinned. As shown, some probabilists were at least willing to excuse confessors who refused to listen to dissenting individuals whose confession they did not have to hear *ex officio*. Some authors also calibrated the graveness of the confessor's sin to the graveness of the confession. Hence, a confessor sinned mortally if he refused absolution to a penitent with a probable position in matters that might be mortally sinful. If the penitent's position at worst amounted to a venial sin, refusal to absolve was also only venial. This was the view of Antonino Diana (1586–1663) and others, whereas Fernando Castropalao (1581–1633) maintained that a confessor who rejected a dissenting penitent with a probable case, sinned mortally, regardless whether the confession was about venial or mortal matters.⁴² Particularly grave, for obvious reasons, was the sin of a confessor who refused to hear a penitent who was on the brink of death.

It was also discussed how a confessor who considered the opinion of the penitent not only as false but as improbable (that is, as not reasonably tenable), should proceed. Several probabilists emphasized that a confessor had to absolve even in this case, but apparently assuming that the penitent's opinion was solid enough so that the confessor made a grave mistake by not recognizing its probability.⁴³ The impact of anti-probabilist critique forced probabilists to be more explicit and circumspect. Claude Lacroix (1652–1714), for instance, stated that a confessor who after diligent consideration regards a penitent's opinion as not probable, cannot absolve the penitent.⁴⁴ In other words, the probability assessment but not the moral position of the confessor was crucial for denying absolution according to Lacroix. The confessor was not bound to consider an opinion as probable whose probability he did not recognize after diligent consideration and communication with the penitent.

Occasionally, the word *accommodare* was used in the outlined debate, but not in the way one might expect. Juan Cardenas (1613–1684) asked why it was true that a confessor ought to accommodate to his penitent's opinion.⁴⁵

⁴²See Diana (1636), tom. 1-2, tract. 13, resol. 11; Castropalao (1700), tract. 1, disp.2, punct. 3, n. 6: "Ego vero in hac opinionum varietate existimo probabilius semper esse peccatum mortale negare absolutionem penitenti ... sive confessio sit de mortalibus, sive de venialibus facta".

⁴³See Bresser (1638), lib. 3, cap. 8, n. 96.

⁴⁴Lacroix (1707), q. 54, §1.

⁴⁵Cardenas (1670), tom. 1, tract. 1, disp. 11, cap. 13: "Quae ratione verum sit, quod confessarius tenetur se accommodare opinioni poenitentis"?

Hence, not the penitent ought to accommodate to the confessor's opinion, but on the contrary, the confessor had to honor the opinion of a penitent and to accommodate it by granting him or her absolution. More generally, confessors had to accommodate to the pluralism of moral (theological) opinions.

2.2.2 *The anti-probabilist response*

The probabilist call for an accommodating confessor was one of the key targets of anti-probabilist criticism in the second half of the seventeenth century. Prospero Fagnani (1588–1678) and Giulio Mercori (d. 1669), both writing at the beginning of the mighty wave of opposition against probabilism, found the probabilist position excessive and dangerous for the guidance of conscience.⁴⁶ Mercori, who published a fuller discussion, distinguished three cases, all of which dealt with a confessor who considered the opinion of a penitent wrong or less probable. Mercori focused on exceptional moral problems (*casus singularis*) that had not been profusely discussed in the confessional literature before. In such cases, a learned confessor might encounter a penitent who relies on his own reasoning. The confessor is not swayed by the penitent's arguments, otherwise he would not regard the penitent's opinion as false or less probable. Moreover, the confessor ought to not ascribe so much authority to the penitent as to question his own authority. After all, the penitent argues in his own favor and should therefore not be considered an impartial authority. Hence, the confessor should refuse absolution if the penitent is not willing to change his or her mind.

In a second context, a less than well-trained (*minus instructus*) confessor meets a learned penitent with a sensitive conscience (*timorata conscientia*). Here, the confessor might follow the opinion of a penitent who appears trustworthy and competent, because the confessor has reason to doubt his own judgment. In a third case, both sides are learned and well-informed. In such encounters, the confessor might sometimes absolve on the basis of the penitent's opinion, even if he regards the opinion as wrong or less probable. This is particularly the case if the confessor is aware to be inclined to harsh judgments. If the confessor is learned and possesses good judgment, however, he must refuse absolution to an intransigent penitent, because the sacrament

⁴⁶Fagnani (1765), n. 305; Mercori (1658), pars 3, art. 29.

of penance is to be administrated with the most probable judgment in mind. The confessor is therefore not only entitled but bound to demand compliance from the penitent.

Mercori was one of the most considerate anti-probabilists, but with respect to a confessor's predicament in encountering a dissenting penitent, his differentiated analysis was not exceptional. Many anti-probabilists took care to not conflate acceptable medieval pro-penitent positions and alleged probabilist excesses which they strove to roll back. In order to keep these sides apart, anti-probabilists pointed out that one need not be a probabilist to allow a penitent to follow his own opinion. Even theologians who abhorred probabilism could therefore be guardedly lenient in the confessor case. One good example of this combination of attitudes can be found in Tirso Gonzalez (1624–1705), the Jesuit Superior General, who sparked and led the campaign against probabilism in his order.

Like Mercori, Gonzalez began by circumspectly specifying his case.⁴⁷ He did not want to defend confessors who held idiosyncratic opinions in opposition to the teachings of competent moral theologians. It would be manifestly unjust to compel a penitent to follow such a confessor. Therefore, Gonzalez assumed that the confessor endorses an established theological position. The penitent, on the other hand, justifies his position on the basis of reasons and authority as supplied by doctors (*motus autoritate & ratione doctorum affirmantium*) or after having consulted a learned and honest man who tells him that his conduct is permissible. Nevertheless, the confessor considers the penitent's position as less probable. Some probabilists used a confessor's duty to absolve in such cases as an argument for the truth of probabilism, and Gonzalez immediately set out to thwart this move, assuming that the penitent always regards his own opinion as more probable.⁴⁸ Hence, the confessor does not need to fall back on probabilism to absolve the penitent, but can rely on the traditional medieval practice of accepting a penitent's *bona fide* assessment of greater probability as a ground for absolution.

⁴⁷Gonzalez (1694), diss. 14, cap. 9, n. 112: "Non loquimur de opinione propria solius confessarii, quam ille solus excogitavit: hanc enim, regulariter loquendo, prudenter posset ac deberet confessarius contemnere & se conformare cum opinione poenitentis, quam scit esse gravium doctorum".

⁴⁸Gonzalez (1694), diss. 14, cap. 9, n. 114: "Nam etsi opinio poenitentis respectu confessarii sit minus probabilis, ... respectu tamen poenitentis non est minus, sed magis probabilis, quam opposita".

The case is different if the penitent believes that the opinion he wants to follow is less probable, or defends it on this basis.⁴⁹ Gonzalez maintains that the confessor ought to not absolve the penitent in this case, because the latter is not correctly disposed for penance. Probabilists who disagree (and in particular, Anthony Terill) fall into abominable theological error. Gonzalez also explains in some breadth on what grounds pre-probabilist authors had favored the penitent.⁵⁰ On the one hand, there is the already mentioned possibility of allowing the penitent to follow what he or she considers to be more probable, despite it being less safe. On the other hand, many pre-probabilist authors addressed the case of a doubting confessor, and a confessor's doubts should not constrain penitents whose position is backed by competent theological authors. Gonzalez sees no reason in this respect to differentiate between ordinary or extraordinary confessors, but looks more closely at the competence of confessors and penitents. If the penitent is particularly learned (*valde doctus*) and the confessor is not, the latter may reasonably reverse his judgment.⁵¹ If only a few scholars share the confessor's opinion and many renowned scholars side with the penitent, the confessor may again reasonably desist from his judgment, unless the scholars on his side are famous and have treated the issue profoundly, whereas those on the penitent's side have only formed superficial judgments. (This might be the case in the eyes of anti-probabilists in a confrontation between great medieval scholastics and Baroque casuists). However, if the confessor's opinion is more common among classical authors and he endorses it after diligent consideration on grounds that appear manifestly superior to those of the penitent, the confessor ought to not absolve the penitent. On the whole, as Gonzalez summarizes, a learned confessor who knows that the opinion the penitent seeks to follow is manifestly less probable because it is backed by fewer authors of lesser authority and whose correctly expounded reasons are also weaker, ought to not absolve the penitent.⁵² Moreover, since ultimately either the penitent will have to conform to the confessor or the confessor to the penitent, it matters that the accused should conform to the judge, the

⁴⁹Gonzalez (1694), diss. 14, cap. 9, n. 116.

⁵⁰Gonzalez (1694), diss. 14, cap. 9, n. 121ff.

⁵¹Gonzalez (1694), diss. 14, cap. 9, n. 124ff.

⁵²Gonzalez (1694), diss. 14, cap. 9, n. 129: "Quapropter, ubi confessarius doctus scit opinionem, quam sequitur poenitens, esse in se manifeste minus probabilem, quia habet pro se pauciores auctores & minoris auctoritatis; ipsiusque fundamenta rite expensa, confessario videntur clare minus urgentia, quam fundamenta sententiae, quam confessarius veram censet; non potest poenitentem absolvere".

subordinate to the superior, and the sinner to the minister of Christ instead of the other way round.⁵³ Gonzalez concludes with a quotation from Ignacio de Loyola that members of a body should rather agree with the head than the head with the members.

Gonzalez's differentiated treatment of the case of a confessor who faces a tenaciously dissenting penitent shows that even anti-probabilists did not categorically demand subordination from a penitent. The view that confessors were without much ado entitled to impose their moral and theological views on penitents is thoroughly misleading. Confessors had to operate within a dense network of regulations that curtailed their freedom of decision and to a considerable extent protected the choices of penitents. It is conspicuous in this respect that even the most aggressive anti-probabilists such as Daniele Concina accepted Gonzalez's analysis of a confessor's duties.⁵⁴ However, this is the perspective of normative theory and it is unclear to what extent it was implemented by confessors in practice. Normative prescriptions need to be applied and interpreted, and the confessor held the power of interpretation, unless the penitent could threaten to replace the confessor as some princes did. Wielding this power, a confessor who abhorred the opinion of a penitent could subsume his case under one of Gonzalez's categories that allowed the confessor to refuse absolution. Yet a conscientious confessor knew that such an act of manipulation was a mortal sin. In any case, it should be noted that Gonzalez excluded theological non-experts (*illiterati*) from his considerations. He wrote about penitents who are able to weigh theological reasons and authority or rely on professional counsel. This probably included much of the nobility, clerics, wealthy merchants, higher professions, and possibly some well-connected artisans and peasants, with an additional bias in favor of city dwellers or those living within reasonable traveling distance to a city.

Many ordinary people, especially the rural poor, would neither have been theologically competent nor able to procure counsel by a well-trained theologian or casuist (a village priest did not *prima facie* count as a competent counselor in the present context). Probabilists, as outlined, required confessors to supply penitents with probable opinions that might be in the penitent's interest as viewed from the penitent's own perspective. Gonzalez does not mention such a duty in his analysis of the confessor case. He therefore leaves it to the confessor to decide whether to inform a penitent,

⁵³Gonzalez (1694), diss. 14, cap. 9, n. 134.

⁵⁴See Concina (1751), lib. 3, diss. 9, cap. 5, n. 9.

who might disagree with him, about the maximal strength of the penitent's position. If this permission is accounted for, Gonzalez's anti-probabilist position appears significantly more paternalistic than probabilist positions, especially in light of his concluding remarks that the head should guide the members and the superior the subordinate. Moreover, a case that was quite common in premodern times is still missing in our analysis: that of a dim-witted confessor with strong moral and theological views meeting an utterly illiterate penitent. In this case, even probabilism did not help the penitent much, who was told to follow the confessor's views. Scholastic approaches to confession are not symmetric with respect to ignorant confessors and penitents. Deep ignorance curtailed the penitent's liberty of choice but did not prevent a confessor from doing his job. (However, it would be unfair to accuse the Catholic Church of not seriously trying to fight the deplorable ignorance of many confessors. Better training of the clergy was one of the main objectives of the Council of Trent, 1545–1563).

Finally, it is also noteworthy that undertone and metaphors of probabilist and anti-probabilist solutions to the confessor's case differed considerably. Probabilists styled the confessor as a sacramental service provider who faces severe restrictions against imposing his personal views on the penitent. Time and again, penitents were assured that they do not have to follow the opinion of their confessors more than any other reasonable opinion. Anti-probabilists, by contrast, emphasized the traditional roles of the confessor as judge in the court of conscience, as (medical) doctor of the soul, or simply as superior with a title to obedience. These role models also served as bases for attacks on probabilism, whose defenders could not deny the significance of the mentioned models but had to re-interpret them to suit their own views. Take, for instance, the response of the probabilist Claude Lacroix to the argument that a sick person cannot be cured on the basis of her own diagnosis, but through the art of the doctor, and therefore, the penitent's soul should be cured according to a confessor's best knowledge. Lacroix agreed that the confessor was like a doctor of the soul, yet the cure was not the confessor's opinion but the sacrament of penance. Moreover, sick persons ought to accept necessary medication but need not agree to all kinds of optional treatment of uncertain value. As to the role of a judge, Lacroix answered that the confessor was in the first place a judge of the penitent's good conscience, and a penitent who followed a probable opinion should be

presumed to have a good conscience.⁵⁵ On the whole, probabilists had answers to the challenges of their critics and thus the controversy dragged on throughout the eighteenth century until it was stifled by external events (such as the disbanding of the Jesuits and the French Revolution).

2.3 Extrinsicism

Modern commentators often characterize probabilism as an ‘extrinsicist’ doctrine. The label of extrinsicism derives from the use of extrinsic probability, the probability of the opinions of others, to which probabilism was allegedly prone. This allegation can immediately be answered if we are only interested in probabilism as a normative theory, defined and developed by scholastic theologians. Probabilism clearly allows for the use of intrinsically probable opinions, that is, opinions for which the agent has strong reasons of truth. The double pillar model of intrinsic and extrinsic probability, which was prevalent in seventeenth-century Catholic moral theology, makes it abundantly clear that intrinsic grounds of probability are not inferior to extrinsic ones. Moreover, many remarks concerning authority-based probability emphasize that authority must ultimately be based on reasons, and thus on intrinsic probability. From the perspective of normative theory, therefore, probabilism is not particularly extrinsicist. On the contrary, taking into account that medieval doctrines on the use of opinions relied on the Aristotelian *endoxon* as a model for probable opinions, the introduction of the intrinsic/extrinsic distinction in the wake of probabilism’s rise amounts to a conspicuous move away from externally grounded probability. The medieval endoxical notion of probability, not the new intrinsic/extrinsic model on which probabilism relied, had an extrinsicist bias.

2.3.1 Meanings of extrinsicism

Apart from alluding to just one kind of probability, extrinsicism has different understandings, only some of which buttress the claim that probabilism was

⁵⁵Lacroix (1707), lib. 1, q. 54, n. 446, 447.

an instrument of tutelage. It is helpful to distinguish three possible understandings of probabilism as extrinsicist:

(1) Probabilism was extrinsicist because it motivated agents to form their own opinions on the basis of other persons' opinions.

(2) Probabilism was extrinsicist because it motivated agents to justify their actions through other persons' opinions. (However, the agents might have shared these opinions already prior to them being used for justification).

(3) Probabilism was extrinsicist because it helped compel agents to follow the opinions of others against their own opinions and preferences.

Note that extrinsicism's coercive impetus increases from (1) to (3). Interpretation (1) does not assume that an agent follows a specific external opinion. The agent may act on his own opinion which, however, is primarily formed on the basis of external opinions. It would actually be gross epistemic misconduct to not account for the known opinions of competent others in one's own considerations. This does not imply that a competent agent should allow his own reasoning to be utterly dominated by external authority, but this was also not recommended by probabilists. We should, of course, be mindful of the distinction between competent and insufficiently competent reasoners in the moral regulation of the use of opinions. Yet for competent reasoners, using their own lights was not only recommended but, as we have seen, called for by probabilists and anti-probabilists alike (see Chapter 6). Given this caveat, it is not unreasonable to form one's own opinion on the basis of largely external opinions when others possess the best expertise on a subject.

According to interpretation (2), extrinsicism denotes an agent's following of other persons' opinions, including the assumption that the main justification for a course of action relies on the opinions of others. It should be clear that in this respect, 'following' need not occur at the expense of one's own opinion. An agent might well follow his or her own opinion despite justifying it (or letting it be justified) through a moral theologian's solution to a case of conscience. A couple might, for instance, believe that mutual sexual stimulation without intercourse is permissible, but invoke the opinion of a theologian if asked for a justification.

Modern examples show that extrinsicism of type (2) is also easily compatible with a modern understanding of freedom of opinion. A modern animal rights activist might use the philosopher Peter Singer's arguments to justify his own conduct. The activist will usually hold similar views as the animal rights theorist Singer and employ this philosopher's careful reasoning to reinforce his own ideas in public discourse. Nothing in this setting justifies the assumption that the activist is restrained by Singer's authority. Animal rights activists can choose from a wide array of blueprints of argumentation in the field of animal ethics to buttress their own views, and the same is true for activists in most fields of practical ethics.⁵⁶ Before them lies an extensive menu of positions and arguments, and their intellectual liberty allows them to choose from this menu based on their own reasoning. In principle, modern moral activists can, of course, also rely entirely on their own reasoning. These are options that probabilism permitted as well. Considerations of competence and economizing on effort, nevertheless, persuade most people who care about practical ethics to adopt an existing, well-argued position rather than to arduously develop one on their own. Under this premise, intellectual freedom of choice is mostly increased through an expansion of the menu of positions from which reasonable choice is possible, and this is precisely what occurred in the wake of probabilism.

Only interpretation (3) assumes an element of tutelage and pressure to follow the opinions of others against the agent's own opinion. In fact, Gabriel Vazquez (1549–1604) seems to invite such an interpretation of probabilism. Vazquez exemplified the application of probabilism with the case of a soldier who obeys orders (see Chapter 2). The moral legitimacy of the orders may be less probable than their permissibility, but nevertheless, the soldier must follow them. In Vazquez' case, probabilism backs demands of obedience by invalidating the normative argument that an agent should follow what his or her conscience considers to most likely be right, that is, the most probable opinion. Instead, the agent is bound to obey as long as the legitimacy of the ordered action is at least probable. However, the order itself is not validated by probabilism. The underlying command relationship needs to be independently established to bind an addressee to obedience. If it is only probable (and not morally certain) that a superior is entitled to the obedience of a subordinate, the subordinate may in virtue of probabilism legitimately

⁵⁶Tutino (2018: 86) discusses a similar case of activists who endorse the opinion of climate scientists on global warming.

refuse to obey his superior because uncertain obligations do not bind him. Obedience and tutelage are therefore dependent on an existing command relationship. Probabilism only protects this relationship against being invalidated by a moral requirement to follow one's most probable judgment of conscience. This is a very specific use of probabilism, and hardly sufficient to exhaust the normative scope of the doctrine. In fact, many textbook cases of probabilism's application were not concerned with the following of orders. Yet historians are usually more concerned with what actually happened in the confessional than with textbook prescriptions. For this reason, we will need to come back to type (3) cases and relationships of command and obedience when discussing practiced probabilism rather than probabilism's normative outlook.

2.3.2 Illiterati: Tutelage for ordinary people?

As already indicated, probabilism certainly did not (not even normatively in textbooks) introduce a liberty for the masses of *illiterati* to follow their own opinions. All agents who were not competent to judge cases of conscience, were told to revert to competent moral evaluators for guidance if they had to solve a problem of moral agency (see Chapter 5). Hence, probabilism was undoubtedly extrinsicist and *prima facie* smacked of tutelage for the bulk of penitents. They had to follow the opinions of others and accept guidance. It should be clear by now, however, that the underlying norm was not new. External guidance for all those who could not operate the sophisticated machine of scholastic practical morality on their own had been advised by medieval scholastics long before probabilism. Probabilism merely continued to subscribe to scholastic moral expertocracy. Still, the claim that ordinary people ought to accept moral guidance from others stands in marked contrast to the moral-epistemological egalitarianism that characterizes most modern moral philosophy and practice. Insofar, probabilism was clearly no precursor of moral self-reliance for everybody.

It is, however, also noteworthy that probabilism had a significant indirect impact on the possibility of *illiterati* to defend their views in the confessional. In this respect, the duties of confessors to accept the probable opinions of their penitents, which have been discussed in Section 2.2 above, are highly relevant. An agent does not have to be able to judge the probability

of opinions herself in order to hold a probable opinion. The agent's opinion can be recognized as probable by a confessor or moral counselor without the agent knowing it to be probable. Moreover, half-way well educated members of the early modern middle classes (in English, the 'middling sort' of people), and certainly of the nobility, might have had some knowledge of moral expert opinion. (Perhaps we should not underestimate artisans and peasants, either). They could challenge their confessor about whether opinion *q*, of which they had heard or read, was not at least probable. An honest confessor, therefore, often had to admit that the opinion on which a penitent planned to base his or her action (e.g. to buy a morally dubious interest-bearing annuity) was at least probable. Insofar, probabilism offered ordinary people a lever to have their views recognized in the confessional, given they were at least clever enough to ask about the probability of their opinion.

What about penitents who were too naïve, uninformed, and unimaginative to conceive of such a move? Educational trends in the early modern era suggest that the number of profoundly illiterate shrank over time, but probabilism helped the remainder by at least embodying the 'benevolent way' of guiding consciences. That is, probabilist confessors were instructed to favor the most benevolent solution to a case of conscience for the client. Benevolence implied that the confessor ought to inform the ignorant agent about the existence of a probable opinion that justified a planned or already performed action, and, of course, tell him or her that this action remained eligible, even in the face of a morally safer and more probable counter-opinion.

On the whole, probabilism was poised to broaden the space of permissible choices of even the *illiterati* by giving them a hand in their choice of opinions. The confessor, of course, had the last word, but from the perspective of probabilism, confessors had clearly outlined duties to support the penitent. Insofar, we may conclude that from a normative perspective, probabilism did not fully break with the tutelage of *illiterati* in scholastic moral theology, but mitigated or even undermined it considerably, especially when compared to other scholastic doctrines of moral guidance.

3. *The perspective of practice and the historical perspective*

So far, we have seen that in a normative theoretical perspective, probabilism was a liberty-favoring doctrine. It required confessors to accept probable opinions of penitents, even if these opinions conflicted with the confessor's own moral judgment. For most early modern theologians, intrinsic probability was at least on a par with extrinsic probability. Finally, for ordinary people, the *illiterati* of scholastic moral theology, probabilism implied less tutelage and greater possibility to get one's opinion accepted than any other scholastic doctrine for the use of opinions.

Historians who want to argue that probabilism was, in fact, an extrinsicist doctrine of type (3), and moreover an instrument for the tutelage of conscience, need to demonstrate how a theory with the outlined liberty-favoring characteristics could be used in practice for apparently contrary purposes. One important foothold in this respect is generated by the claim that intrinsic probability only played a theoretical role in probabilism, whereas in practice, consciences were mainly guided by extrinsic probability, that is, the opinions of others who were authoritative theologians.

In fact, Albert Jonsen and Stephen Toulmin claimed that the inflationary multiplication of casuist opinions in the seventeenth century crowded out intrinsic probability, that is, justification by reasons known to an agent.⁵⁷ Jonsen and Toulmin may be right that the proliferation of moral opinions in the Baroque era combined with stand-alone authority for single casuists facilitated the formation of agent's opinions on the basis of external probable opinions. Thus, probabilism may actually have fostered externalist opinion formation as a matter of convenience, even in cases in which this was epistemically problematic. Given the many warnings in probabilist treatises against falling prey to such shortcuts (see Chapter 6), they indeed seem to have been widespread. However, at the same time, these warnings show that uncritical reliance on authoritative opinions was considered a misapplication of probabilism. It should therefore not be considered an immanent shortcoming of the doctrine, but an abuse. Moderate forms of probabilism did not condone excessive and uncritical reliance on the opinions of others. The real practice of probabilism may not have lived up to these standards, but we should not regard such shortcomings as faults of the doctrine itself.

⁵⁷Jonsen and Toulmin (1988: 168).

3.1 Obedience to orders and to authorities

As already indicated, one main reason for regarding probabilism as an instrument of tutelage is that it allows an agent to hold true an opinion p while following an opposite course of action $\text{non-}p$. This is clearly an extrinsicist use of probabilism, because it amounts to endorsing the opinions of others—which the agent does not share—as a premise for action. However, such conduct only represents tutelage if the agent fails to act out of her own accord, for instance, because she is ordered (or otherwise compelled) to do $\text{non-}p$.

Even then, it should be noted that bracketing one's own views and complying with orders does not infringe an agent's liberty of opinion. It is possible to assume that duties of collective action or command relationships can bind us to do what others want, but this does not give them any power over what we should hold true. That is, we might comply with the action plans of others while holding on to the belief that a different course of action would be better. It is part of our intellectual freedom to do so, in particular if an ordered action appears suboptimal, but not completely unreasonable from our perspective. Subordinates might be required to voice dissent if orders are ostensibly irrational, but not if an order conforms to the views of reasonable persons. Probabilism demanded practical compliance in such cases, without infringing the agents' intellectual freedom. On the contrary, the outlined approach to compliance allows for the maximally feasible intellectual freedom in contexts in which obedience is required and an agent's view is not favored by his superiors.

A few more general considerations may be added to this. Absolutist policies were often more likely immoral from the perspective of Christian morality than opposite courses of action. Probabilism could be used to convince an agent of the legitimacy of compliance with an official 'party line', even if his conscience regarded this course of action as probably morally wrong. The Bavarian probabilist Franz Neumayr (1697–1765) could therefore soothe concerns that probabilism undermined the obedience of subjects to their prince. On the contrary, as Neumayr explained, rigorism forced agents to stand by the most probable judgment of their conscience, while probabilism required obedience to valid commands of a superior if God's laws did not

with certainty call for the opposite.⁵⁸ In light of such examples, it becomes clear that probabilism was, indeed, sometimes used as an instrument to elicit compliance. However, Neumayr's assurances also indicate that the case is more complicated. First of all, why did Neumayr have to assure his readers that probabilism did not undermine public order and civic obedience? Anti-probabilists (referred to by Neumayr as 'rigorists') used the liberty-favoring principles of probabilism to great effect to raise concerns that it might undermine public order. If probabilism favored individual liberty over obedience to God's merely probable precepts, it thereby a fortiori in the eyes of critics undermined obedience to a ruler's commands, whose legitimacy was probable at best.⁵⁹ The upshot is that probabilism even in cases of obedience to hierarchical authority was not a straightforward, but a double-edged instrument of tutelage, as Miriam Turrini has aptly remarked.⁶⁰ If the commands of a human superior could reasonably be argued to only possess probable legitimacy, probabilism allowed full freedom of choice in the absence of uncontroversial moral restrictions. Under this premise, the 'mighty machine' of probabilism could be used to justify disobedience. Whoever recommended probabilism as an instrument to elicit obedience ran the risk that clever users could subvert it for their own purposes.

Nevertheless, a vast majority of early modern probabilists certainly approved of using their doctrine to bolster obedience to civic authorities or military commanders. Yet even if probabilism was overwhelmingly used to elicit compliance in these fields of conduct, this does not demonstrate that it was generally or even predominantly used in this way. Several other important fields exist in which probabilism was used to liberate individuals from expectations of normative compliance – so many fields, in fact, that probabilism incurred the accusation of being too permissive. Take the field of sexual morality. Probabilists, such as Tomás Sanchez, propagated an increasingly permissive sexual morality, for instance, by allowing petting even if it was not a prelude to procreation. Frequent petting was certainly not a precept of the Church to which obedience had to be enforced. It rather reflected individual sexual preferences, which probabilism helped satisfy.

⁵⁸See Neumayr (1760: 59): "Scimus omnes, nullo casu licere hominem contra Deum: quando igitur probabile est, praeceptum humanum repugnare: eja! Quid licet subdito? Ex sententia probabilismi non modo licet ei obedire, sed tenetur. Ita superiorum cum subditis pax& subordinatio conservatur". On Neumayr, see Van der Veldt (1992).

⁵⁹See Concina (1751), lib. 3, diss. 8, cap. 3, n. 8 and 9.

⁶⁰Turrini (1991: 175): "Forse il probabilismo fu un'arma a doppio taglio, ma non per tutti".

Alternatively, consider business ethics. Probabilism helped bankers market morally dubious financial instruments.⁶¹ Doing business in moral grey zones was also not a commandment of the Church for which compliance had to be ensured (but parts of the Church, of course, operated in such grey zones themselves). On the contrary, probabilism allowed bankers to seek economic gain whenever they were not constrained by uncontroversial moral restrictions. Finally, let us look at absolutist rulers. As much as they wanted their subjects to endorse their policies, they invoked—or pressured their confessors to apply—probabilism to justify their own morally problematic decisions. In this respect, obedience to mainstream Christian morality was hardly intended, but rather a clever use of probabilism to justify reason of state.⁶²

The discussed examples in which probabilism widened the elbow room of individual action, suggest that probabilism was not only used to foster obedience but also for the opposite purpose, namely to loosen restrictive norms. Historians may insist that such examples need to be interpreted in the light of actual confessional practice in the seventeenth century, which, in fact, aimed at tutelage and control. The background of this rejoinder is, of course, a specific view on the Counter-Reformation in Catholic Europe. According to mainstream historiography, the Counter-Reformation was bent on control and social disciplining, and probabilism should be interpreted in such a way as to make sense within this framework. Consequently, it should be considered as an instrument of tutelage and the disciplining of individuals. However, before succumbing to the temptation of limiting probabilism to a schematic view of Counter-Reformation Catholicism, let us take a closer look at the possible relationship between probabilism and Counter-Reformation policies.

3.2 The spectre of the Counter-Reformation

Probabilism was a normative construct that spread quickly and widely in Catholic moral theology, eliciting doctrinal and political battles within the

⁶¹See Decock (2009, 2013); Gómez Camacho (1998), Chap. 2; Schuessler (2006a), Chap. 2, §5; Tutino (2018: pp. 110). Concina (1750), lib. 3, diss. 3, offers a wealth of accusations against probabilist economic morality.

⁶²See Reinhardt (2016); Schwartz (2019).

Catholic Church. All this is hardly imaginable, unless probabilism was in step with major historical forces that shaped its development in the period from 1577 to the end of the *ancien regime*. For many historians, the most relevant historical background for a doctrine of Catholic moral theology in this period is the Counter-Reformation, the Catholic attempt to undo the Reformation. Others prefer to speak of a Catholic Reformation, the Catholic Church's attempt to reform itself, while still others use the concept of confessionalization.⁶³ The respective choice of historical concept already influences the historical understanding of probabilism. It does not seem problematic to fit probabilism into a narrative of confessionalization, that is, the diverging development of (Christian) confessional identities and institutions in early modernity. Probabilism was a genuinely Catholic doctrine, with no counterpart in Protestant teachings.

In any case, the compatibility of probabilism's liberty-favoring traits with narratives of the Counter-Reformation, Catholic Reformation, or confessionalization very much depends on the characteristics we ascribe to these processes. A focus on control or power relationships in Catholic moral theology, for instance, does not produce a discrepancy with a liberty-favoring outlook of probabilism. It is possible to control people better by giving them some occasion for fun-loving activities or personal choices. Teenagers who are allowed to moderately party on the weekend might be less unruly than others who never have fun. A 'benign' moral theology may have had a similar function. Moreover, it goes without saying that the identification of probabilism as a liberty-favoring doctrine does not imply incompatibility with the preservation of Catholic power over a populace. In Chapter 2, I suggested that probabilism was, among other things, an instrument for negotiating normative entitlements. If so, it also helped mend power relationships which threatened to break under the strains of early modern conflicts or divergent interests of involved parties. Good approaches to compromise-making naturally double as instruments for the maintenance of power relationships. They often do so by helping to gain or retain the allegiance of groups or individuals upon whom an agent cannot fully impose his or her will. Gaining and retaining allegiance was certainly important for the leaders of early modern states or for the Catholic Church.

⁶³On the Counter-Reformation and alternative conceptualizations, such as Catholic Reformation or confessionalization, see, e.g. Bireley (1999); Lotz-Heumann (2013); Po-Chia Hsia (2005); O'Malley (2000).

Significant questions for a liberty-favoring view of probabilism in combination with historical macro-concepts such as the Counter-Reformation, Catholic Reformation, or confessionalization only arise if social disciplining (*Sozialdisziplinierung*) is considered as being characteristic of these concepts.⁶⁴ A perspective of early modern rulers, whether secular or clerical, as being obsessed with social disciplining suggests that probabilism was predominantly used as an instrument of moral tutelage. Social disciplining is usually described as the attempt of early modern states or ecclesiastical hierarchies to shape a population in accordance with behavioral norms that are considered conducive to a decent Christian life or good citizenship.⁶⁵ Diligence in observing religious norms and government regulations, discipline in the conduct of life, and generally virtue and productivity were objectives of social disciplining. The problem with probabilism is that it seems to run counter to these aims in important respects. It favors liberty over laws, at least if the latter have uncertain validity; it deemphasizes discipline and fosters a limited hedonism; and it emphasizes neither virtue nor productivity but freedom of choice. Thus, probabilism diminishes the import of moralizing sermons, whose virtue-centered demands ultimately did not count much in the reckoning of sins in the probabilist confessional. In fact, it is difficult to square the idea of disciplining with the above discussed probabilist treatment of princes, merchants, and married sexual partners. The prince who asks his confessor to use probabilism to favor reason of state over traditional Christian morality is apparently not disciplined through the instrument of probabilism. On the contrary, he is free to follow his strategic plans, which do not have much in common with Christian virtue but may only be permissible according to a legalistic understanding of moral theology. It might, of course, be objected that social disciplining pertained to subjects, not to rulers. Yet the merchant whom probabilists allow to buy a morally doubtful financial title is

⁶⁴A similar focus is often present in Italian historiography on the Counter-Reformation, emphasizing not only discipline but also a concept of power that relies on imposition, an 'inquisitorial mind' and chastisement. See, in particular, the works of Adriano Prospero (e.g. Prospero 1996). De Boer (2001) and Serafini (2004) speak of 'the conquest of the soul' (*La conquista dell' anima*) in the title of their books. It is difficult to imagine that a probabilist should have considered himself a conqueror of souls (except in the sense of recapturing them from Protestantism). Note that a significant part of the respective studies deal with the Counter-Reformation (e.g. Milan under Borromeo) before the rise of probabilism.

⁶⁵The concept of social disciplining (*Sozialdisziplinierung*) was introduced by the German historian Gerhard Oestreich and has become an important element of the concept of confessionalization (for an overview, see Lotz-Heumann 2013), but it also informs the concepts of Counter-Reformation and Catholic Reformation (see, e.g. De Boer 2001: pp. 43; Tully 1988).

also apparently not disciplined to follow the spirit of Christian business ethics in fear of God and the Church. He is rather assured of his freedom of choice wherever God's laws have no uncontroversial interpretation. Finally, the couple that seeks pleasure in the marital bed is apparently not disciplined by probabilist confessors to have better sex. They get what they long for in ways the Church need not prescribe. Note that this is not an anachronistic retrospective judgment by a modern observer. The reactions to Tomás Sanchez's sexual ethics, which we discussed in earlier chapters, show that contemporaries accused him of loosening moral bonds, not of being a disciplinarian.⁶⁶ On the positive side, Pietro Giannone, a progenitor of the Italian Enlightenment, praised Sanchez for having freed husbands and wives from many chains so that they could enjoy their marriage with more liberty.⁶⁷ Liberty to enjoy is the relevant concept here, not discipline.

Defenders of an extensive application of the concept of social disciplining may contend that apparently deregulated uses of probabilism can be integrated into a larger picture of social disciplining by distinguishing different stages of a disciplining process. Permissiveness might initially attract people, who are later disciplined once the Catholic Church or the early modern state has a firm hold on them. The liberty- and pleasure-favoring aspects of probabilism can therefore be described as a gateway drug in a process of social disciplining. This is an assumption that cannot be refuted, because we can never be sure what a probabilist confessor planned to do with a penitent in the long run. However, the self-immunization of the thesis of social disciplining engendered by this irrefutability is worrisome.

Let me just state what seems plausible to me. First, even if it were true that probabilism was mostly applied with subsequent disciplining in mind, it would not overturn the claim that probabilism often fostered liberty to follow one's own moral opinion. Policies of disciplining often remained unrealized in early modernity because of the resilience of habits and conventions, and

⁶⁶A contrasting view of Catholic sexual morality in the Counter-Reformation is offered by Haliczer (1996). Haliczer does not discuss probabilism or Sanchez's sexual ethics in any depth. Instead, he contrasts his historical perspective on the confessional in passing with the normative views of early modern theologians (p. 5). Therefore, the question remains, how a normative 'mighty machine' like probabilism could come to temporarily dominate Catholic moral theology without relevance for confessional practice.

⁶⁷Giannone (2011: 423): "Non fu dunque a proposito che venisse il padre Sanchez gesuita col suo trattato 'De matrimonio' per confondergli e liberare I tapini mariti e le spigoliste mogli da tanti lacci e catene, sicchè con maggior libertà potessero valersi de' loro matrimoni"?

the resistance of people who refused to be disciplined.⁶⁸ In such cases, probabilism as a gateway drug would have loosened bonds that nobody was able to tighten again. Thus, probabilism's net effect was liberty-favoring or deregulatory in such cases.

However, I doubt that ecclesiastical or secular policies in the early modern era were coordinated enough to come close to a 'first attract, then discipline' grand strategy. Different hierarchs in the Church and State seem to have followed different, not fully compatible aims. The main tension they faced was probably between securing allegiance and the disciplining of subjects. There were occasions in which it was much more important for the Catholic Church or early modern states to secure strong and widespread allegiance from subjects, whereas the quality of the subjects (to be improved by disciplining) did not matter as much. In other contexts, when allegiance was assured, disciplining may have mattered more. For this reason, doctrines that fostered allegiance by giving leeway to subjects may in some contexts have played a greater role than instruments of discipline. This is not to say that the maximization of allegiance must have been on any decision maker's mind. Its importance may simply have facilitated the rise to power or influence of individuals or groups with an agenda that fostered allegiance. In a similar way, proponents of discipline as a priority may have gained influence because of a need for political or confessional empowerment to which discipline promised to contribute. No integration of these developments into an overall plan or grand strategy is required to keep them going. Moreover, the prevalence of one or the other of the assumed tendencies will in the end often have depended on contingent successes in political or ecclesiastical power struggles rather than on a grand strategy.

The assumption of disparate agendas or approaches in the early modern Catholic Church, which are not balanced by a grand strategy (or a final decision by the Pope), is confirmed by the existence of rival schools of moral theology. In the seventeenth century, a benign and a rigoristic approach (*via benigna* and *via rigorosa*) came to be explicitly distinguished. The followers of these approaches competed, with one side sometimes gaining the upper hand and sometimes the other. In the first half of the seventeenth century, the *via benigna* reigned supreme. I do not know what historians will make of this period of dominance of the benign approach, but to me it seems that during

⁶⁸See, e.g. Forster (2001); Hersche (2006); the introductions of Bamji and Janssen (2013); Fisher (2014) and Hall and Cooper (2013).

the hot phase of the wars of religion, and especially in frontline regions, gaining and retaining allegiance mattered far more than the forming of good subjects.⁶⁹ After the Thirty Years War, an acrimonious dispute broke out between protagonists of the two *viae*. The *via benigna* suffered some regional losses, the most important being France. However, no side could decisively gain the upper hand throughout Europe, as fostering allegiance never lost its importance for early modern states or confessions.

To sum up, if my considerations are correct, probabilism was—at least in effect—far more an instrument for gaining or retaining allegiance than an instrument of discipline. Its principles and rhetoric of liberty, its permissiveness, ostentatious modernity, and rehabilitation of pleasures (licit if not interdicted beyond doubt) must have appealed to large parts of early modern populations and elites.⁷⁰ The moral defenders of Baroque theater were largely probabilists, their opponents anti-probabilists.⁷¹ And not for nothing did Alfonso de Sarasa advertise his probabilist moral theology under the title *The Art of Always Rejoicing (Ars semper gaudendi, 1664)*.

3.3 Probabilism and the language of liberty

In a historical assessment of probabilism, the language and concepts it propagated are not to be neglected. The significance of language use and communicative practices for the understanding of historical developments is now firmly acknowledged.⁷² Historical relevance is therefore to be ascribed not only to the actual application of probabilism in the confessional but also to the language and terminology of probabilists. Taking this perspective seriously, we should inquire about the effects of labeling probabilism as liberty-favoring in an early modern communicative environment.

⁶⁹Some historians contrast force and persuasion (e.g. Louthan, 2009). I, nevertheless, prefer to use the pair allegiance and discipline because persuasion may be simply understood as creating agreement to being disciplined.

⁷⁰See, above all, Peter Hersche's grand panorama of an exuberant, entertainment-seeking, and fun-loving Baroque culture. Hersche (2006: 431), vol. 1, observes that it was not the Counter-Reformation but the Enlightenment in which the disciplining of church members actually started: "Nicht in der Gegenreformation, sondern in der Aufklärung setzte also die Disziplinierung des andachten-freudigen Kirchenvolks ein".

⁷¹See, e.g. Hersche (2006: 424, 601, 644); Jeske (2006).

⁷²For a classical statement, see Pocock (1990) and Skinner (2002), if we accept, as we should, that probabilist moral theologians were doing something by writing and thus participating in the debate on probable opinions, regardless whether their doctrine was used in the confessional.

It cannot have been irrelevant for the rise of a discourse on liberty in Europe that probabilism was both expansively propagated and attacked as a doctrine that ‘favors liberty’ (see Section 2). The liberty-praising rhetoric of probabilists was not confined to arcane academic debates in scholastic colleges. The debate on probabilism spanning the second half of the seventeenth and much of the eighteenth century was a Europe-wide or even global affair with serious political repercussions. This debate conveyed, at the very least, that even Catholic moral theology saw a way to harmonize human liberty and morality without undue restriction for individual desires and emotions. Probabilism turned liberty and benevolence into watch-words of a broad current of Catholic moral theology. Moreover, probabilism offered a rationale for loosening excessive moral restrictions. All these attitudinal options were grasped by Catholic enlighteners in the eighteenth century.⁷³ Even if many Catholic enlighteners ultimately turned away from the scholastic, and therefore from the apparently antiquated doctrine of probabilism, they nevertheless profited from communicative spadework with respect to ideas and attitudes of which they could make use.

Moreover, we should not forget that most anticlerical thinkers of the Enlightenment in Catholic countries were taught by clerics (often Jesuits) who held pronounced views on probabilism. Questions of liberty, therefore, almost inevitably emerged in the wake of moral education in Catholic countries, and more than a few pupils of the Jesuits might have developed a predilection for liberty-favoring doctrines beyond what their teachers understood with this label. It is significant in this respect that the *prima facie* permission to follow any probable opinion was referred to as a ‘right of liberty’ (*ius libertatis*) by some probabilists and their opponents. Daniele Concina (1687–1756) claimed that probabilists postulated a right of liberty that God’s law curtailed.⁷⁴ Indeed, probabilists regarded the entitlement resulting from an agent’s possession of freedom of choice as a right (*ius*) to liberty.⁷⁵ Hence, probabilism contributed to the rhetoric of liberty rights in the seventeenth and eighteenth centuries.

⁷³See Lehner (2016).

⁷⁴Concina (1760), tom. 1, lib. 2, diss. 2, cap. 7, §1, n. 1: “Lex tollit jus libertatis, iniquunt Probabilistae”.

⁷⁵See, e.g. Salas (1607), tract. 8, sec. 6, n. 66, prob. 3: “in dubiis melior est conditio possidentis rem aliquam externam ita etiam melior est conditio possidentis libertatem suam, & ius efficiendi, quod sibi utile fuerit”. Schwarz (1743), pars 1, tit. 1, instructio 5, § 4, resp. 2: “Ista regula, quod melior sit conditio possidentis non tantum valet in materia iustitiae, sed etiam conscientiae. Ratio est: Quia etiam in hac homo habet ius certum possessionis quoad suam libertatem.”

The import of probabilism's language of liberty for the discourse on liberty in Europe has so far not been investigated. This is, however, no reason to assume that no such import existed. For me, at least, it is difficult to imagine that the debate on probable opinions, one of the most extensive and acrimonious debates of the early modern era, had no repercussions for the societal and intellectual discourse in Catholic Europe and beyond.

4. Conclusion

We are now in a position to bring together the strands of this chapter's discussion and ask once more: Was probabilism a liberty-favoring doctrine? Or was it actually an instrument of tutelage and disciplining? Probabilism could indeed be used to foster obedience to norms and actions that appeared less probably right to an agent (or even all observers) than available alternatives. However, probabilism also had many other, liberating uses. Is it therefore perhaps best to characterize probabilism just as a 'double-edged' doctrine (Turrini)? Such a characterization would, in any case, not be wrong. Yet, at the same time, a reserved answer misses important aspects of probabilism and the ways it was propagated and perceived in the early modern era. First of all, probabilism was widely labeled as a liberty-favoring doctrine by both friends and foes alike. In the spectrum of Catholic moral theological positions ('moral systems'), probabilism gravitated towards the liberty-oriented end, in some accounts outrightly marking a liberty-oriented extreme. This is not a retrospective categorization from a modern perspective. Probabilism was already characterized as liberty-favoring in the seventeenth-century debate on probable opinions, and the ordering of moral systems emerged in the first half of the eighteenth century, summarizing earlier views.

Moreover, the principle of uncertain law, a basic principle of probabilism, is obviously liberty-favoring in its normative formulation. It emphasizes the liberty of an agent to do what he or she likes, given that restrictions of this liberty are of uncertain validity. In modern terminology, the principle safeguards an agent's negative liberty in the face of uncertain normative restrictions. The principle of the possessor's advantage was also predominantly understood as a principle of liberty by probabilists. Anti-probabilists, by contrast, saw the law 'in possession' in cases of uncertain legal

restrictions by divine, natural, or moral laws. In any case, probabilism does not call for obedience to less probable norms. Allegiance to such norms needs to be independently justified (and with at least moral certainty) to be normatively binding. Probabilism only invalidates a countervailing norm of having to follow the most probably right or safest moral guidance. Finally, the liberty-favoring normative outlook of probabilism is confirmed by the norm that confessors should absolve penitents who follow probable opinions, even if the confessors regard these opinions as being false.

The strongest case against a liberty-favoring interpretation of probabilism can be made if the actual confessional practice in Catholic Counter-Reformation Europe is overwhelmingly regarded as documenting tutelage and disciplining. Given a widespread understanding of the Counter-Reformation as bent on tutelage and discipline, this is largely a view favored by historians. In Section 3 of this chapter, I have explained why I am not convinced by the underlying narrative. It seems plausible to me that the carrot had as much value as the stick in regaining and retaining souls that had been lost to Protestantism. Thus, probabilism's anti-rigorous, fun-justifying, pro-entertainment side could no less foster allegiance to Catholicism than alternative strategies emphasizing social discipline and the cultivation of virtue. Histories of Baroque culture, such as Peter Hersche's, can be read to support this conclusion.⁷⁶ Finally, it should not be forgotten that the language with which probabilism was propagated in the early modern era has an historical import of its own. The debate on probable opinions between roughly 1650 and 1750 was one of the most extensive and acrimonious intellectual controversies in Europe. It is hard to believe that probabilism's flagging out as a liberty-favoring doctrine had no promotional effect on the discourse on liberty in Europe.

None of these claims preclude that probabilism is considered an extrinsicist doctrine, as long as extrinsicism is not assumed to imply tutelage. Probabilism allowed agents to follow the opinions of others and to form their own opinion on the basis of other persons' opinions. Given the scholastic moral expertocracy of theologians, canon lawyers, and casuists, this possibility was amply used in the early modern era. However, such practices are compatible with a growing liberty to follow one's own opinion, because the expanding circle of reasonably adoptable expert opinions, combined with

⁷⁶See Hersche (2006).

less restrictions for choice among these opinions, increased the likelihood that agents could follow an expert opinion they shared.

Chapter 12: The Scholastic Background of Modern Probability

What did scholastic authors contribute to the rise of modern quantitative probability in the seventeenth century and the notions of probability it engendered? Did the dynamic and vast contemporary scholastic discourse on probability have any impact on the mathematization of probability, or were the two discourses separated by an unbridgeable chasm – as so often assumed in the older historiography? So far, the present inquiry has addressed these questions only in passing. It has been shown that scholastic analyses of probability, above all in the Baroque era, were more dynamic and innovative than commonly believed, and mention has been made of scholastic forays into the frequency view of probability, urn models, and the likelihood of error among experts. Now these remarks will be developed in more depth, but with a focus on a few selected issues because a full picture of scholastic contributions to the rise of quantitative probability would require a much longer investigation.

Serious investigation of the scholastic background of modern probability has only recently begun. James Franklin's *The Science of Conjecture* (2001), a wide-ranging overview of the 'prehistory' (that is, the premodern history) of concepts of probability and uncertainty has done a fine job of increasing awareness of scholastic probability in the wider academic public. But Franklin did not tap new source material, nor did he focus on the richest period of the scholastic probability discourse, the Baroque era. Hence, his book goes some way, but not far enough in my view to counterbalance the problematic effect of the possibly still best known work on the prehistory of probability, Ian Hacking's *The Emergence of Probability* (1975, revised ed. 2003). Hacking postulated a rather pronounced conceptual break in the treatment of probability in the middle of the seventeenth century in addition to turning to a quantitative approach. According to Hacking, a statistical notion of probability arose concerned with the frequency of observations, together with an epistemic notion which addressed degrees of belief. Scholastic probability, by contrast, dealt with approved opinions, that is, with Aristotle's *endoxon* and its medieval cognates. As for the frequency notion of probability, Hacking's critics soon showed that it went all the way back to

Aristotle and had been well-known in the Middle Ages.⁷⁷ Nor was the epistemic notion of probability in any way new. What has usually been conceded is Hacking's view that scholastic probability discourse remained wedded to the *endoxon*, but as documented by Robert Maryks and the present inquiry, scholastic probability discourse, in fact, turned away from endoxical probability in the sixteenth century (see Chapter 4). It thus seems that Hacking's theses fail on all fronts.

However, nothing in the critique of Hacking's theses documents any parallel development or influence of the scholastic discourse on probability on the emerging field of the quantitative measurement of chance and its understandings of probability. For this, it is not necessary to go back to Aristotle or Aquinas, but instead to look at seventeenth-century scholasticism, which at the time was still academically dominant. It should not be forgotten that the first steps of modern probability were taken in France, where the battle between Jansenists and Jesuits was rampant. Blaise Pascal, one of the inventors of modern probability, was an active contributor to the debate on scholastic probabilism. We know that he and his collaborators, Antoine Arnauld and Pierre Nicole, were well informed about the enemy camp. It remains to be fleshed out, of course, that an interesting development for the rise of modern probability took place there. Textbooks on the history of mathematical probability generally fail to take this possibility seriously. The most open-minded of them with respect to scholasticism note that Juan Caramuel published a long treatise on gambling and quantitative statistical prediction in 1670.⁷⁸ However, Caramuel reprinted Huygens's path-breaking treatise on the calculus of chances (like Caramuel, Huygens did not use the word 'probability' in this context) along with his own analyses, and thus he appears as one of the first recipients of the new quantitative treatment of chances, rather than as an innovative contributor to it.⁷⁹ It is therefore important to realize that Caramuel is not the only scholastic to be considered with respect to the rise of modern probability. Many references to other relevant scholastics can be found in Sven Knebel's *Wille, Würfel und*

⁷⁷See Brown (1987); Garber and Zabell (1979).

⁷⁸See Godfroy-Genin (2004: 134-146); Hald (2003: 184); Todhunter (1865), Chap. 6. Franklin (2001), of course, discusses Caramuel and scholastic sources at length, but Franklin's book is not considered specifically as a history of probability in the modern and mathematical sense. There is no mention of Caramuel in Daston (1988), and in Hacking (2006) he only appears in the list of references.

⁷⁹Huygens (1657).

Wahrscheinlichkeit (2000).⁸⁰ Knebel investigated the use of statistical (and metaphysical and moral) notions of contingency and necessity in Baroque scholasticism. This field of discourse is closely linked to probability, and it becomes clear from Knebel's account that Baroque scholastics broached issues that were pertinent to modern probability on a much broader front than hitherto presumed. What Knebel did not do is to approach the question of Baroque scholastic contributions to the emerging field of quantitative and modern notions of probability head on. Of course, such a direct approach needs preparation and collaborative effort. It not only requires an in-depth look at the debate on probabilism, which plays a marginal role in Knebel's book, but also at the development of aleatory (i.e. risk-taking) contracts in scholastic jurisprudence. No single researcher can be an expert in all these fields. Nevertheless, it is worthwhile probing on a broader front what Baroque scholastic authors contributed to the rise of modern probability. Otherwise, we will not have even a sketchy map of the contributing system of rivers and rivulets to the emergence of modern probability. In my view, such a sketchy map might motivate the efforts required for a more detailed cartography. Hence, the present chapter.

1. Gambling problems and interpretations of probability

It seems apt to initiate an inquiry into the nexus between modern and scholastic probability from the more familiar ground of the former. Works on the history of probability usually adopt this perspective by framing their subject as the history of its mathematical and quantitative calculus. From this vantage point, the development of mathematical underpinnings for games of luck are particularly important, but we will also pay attention to modern interpretations of probability in relation to their predecessors.

⁸⁰See also Knebel (2004, 2009).

1.1 *The art of gambling and the ‘problem of points’*

In the Middle Ages, interest in the mathematics of gambling was scant. A few texts dealt with ways in which the sides of the dice can come up, hence, the issue must have interested at least some authors.⁸¹ Accurate knowledge of the statistical probability of different throws of dice would have been highly profitable, given that gambling had been widespread in Europe (and elsewhere) since antiquity. However, the hostile attitude of the Church against games of luck may have contributed to the scarcity of published investigations of rational gambling. Moreover, the language of probability was not applied to chance events at the time (e.g., possibilities of obtaining a ‘seven’ when throwing two dice). Note that this is even true for Aristotelian proto-frequentist probability. None of the sides of a dice turns up ‘*ut frequenter*’, that is, almost always or most of the time, and the specification of ‘most frequent’ gambling outcomes would have required basic knowledge of the calculus of chances in the first place.

Progress towards modern treatments of games of luck mainly occurred during the Renaissance and along the lines of a peculiar problem.⁸² The ‘problem of points’ concerns the division of spoils between players who have to break off a gamble before one side has won (perhaps because they were interrupted by precursors of the police). At the time of interruption, for instance, side A has won $s_1 = 5$ games and side B only $s_2 = 2$. Let the chance of winning be 50 percent for either side. The winner of the jackpot is the gambler who first wins $s = 6$ times. How should the jackpot be fairly split between the players?

The famous Italian mathematician Luca Pacioli (~1445–1514) suggested the following:

Let $a = s_1/(2s-1)$ and $b = s_2/(2s-1)$. ($2s-1$ is the maximum number of times the game can be played until one side wins with certainty.) Let the jackpot be split like a/b . Based on the above stated numbers, the jackpot should thus be split 5 to 2. [It is not clear why Pacioli introduced $(2s-1)$ in these considerations].

⁸¹See Bellhouse (2000).

⁸²The ‘problem of points’ is discussed in most textbooks on the history of probability. With respect to the contributions of Pacioli and Cardano, I follow the exposition in Hald (2003: pp. 35).

It has been noted that Pacioli's suggestion followed medieval juridical precedent on the division of profit in business partnerships with unequal investment of capital (*capitale* was already a term in medieval economic thought). Some other suggestions along similar lines were proposed by Niccolò Tartaglia and Lorenzo Forestani in the sixteenth century for a fair division of the jackpot. Girolamo Cardano (1501–1576) was apparently the first author who found the 'correct' answer, which depends on the chances of each player winning the jackpot given the state of the game when it is broken off.

B only wins if she wins four times in a row. The probability for this is $0.5^4 = 0.0625$. A wins in all other cases, that is, her probability of winning is $1 - 0.0625 = 0.9375$. The jackpot should be divided proportionately: A should receive 93.75 % of the jackpot, B should get 6.25%.

Historians of probability principally credit Cardano with finding the right approach, although he got the calculations wrong. However, the question why his approach should be the only correct one cannot be as straightforwardly answered as it might seem to probability theorists. The task was to find a fair division of spoils, and fairness is not a mathematical concept. In fact, Pacioli's approach is perfectly correct if we presuppose the notion of fairness implicit in medieval regulations of business partnerships. Moreover, there may be many correct solutions, each depending on a different concept of fairness. The solutions proposed by Pacioli, Tartaglia, and Forestani reappear in modern theories of fair division or bargaining theory, where they correspond to different approaches to the fair distribution of a given cake.⁸³ It is a normative decision and not an insight into an undisputable eternal truth to regard the chances of winning as a yardstick for fairness in the 'problem of points'. Only after this decision has been taken does the rest follow from probability theory. It should be noted, however, that a focus on the chances of winning fits the development of the respective views on justice well beyond the 'problem of points' in the early modern era. By the seventeenth century, games of luck were often considered a kind of 'aleatory' (literally 'dice-related') contract between the players. Aleatory contracts in scholastic

⁸³On different principles of fair division, see, e.g., Brams and Taylor (1996); Gaertner and Klemisch-Ahlert (1992).

jurisprudence and moral theology generally referred to all contracts in which both sides take risks that can be compared to a bet on odds. For such contracts, scholastic jurisprudence increasingly regarded the chance of success or failure as a guide to justice (see Section 4 below).

Cardano's treatise on gambling was apparently virtually unknown until it was published in 1663 in his collected works. By that time, Blaise Pascal and Pierre de Fermat had already found the (probabilistically) correct solution to the 'problem of points' in their famous exchange of letters from 1654, which marks the birth of modern probability theory.⁸⁴ Yet the first mathematical treatment of the 'problem of points' on the basis of an explicit doctrine of chances occurred in Christiaan Huygens' *De ratiociniis in ludo aleae* (1657). Huygens correctly defined the expected value of a game of chance as the product of (in modern terminology):

probability of winning · value of gain + probability of losing · (dis)value of loss.

However, Huygens did not yet speak of probability, but of chances and the number of possibilities of winning or losing in a game (with a suitably specified space of possibilities). It took half a century longer until the doctrine of chances was fused with the concept of probability. One of the first major works to document this fusion was Jacob Bernoulli's *Ars conjectandi* (1713), the most important early treatise of probability theory.⁸⁵ In the eighteenth century, mathematical probability developed rapidly with the help of Nicolas Bernoulli, Abraham de Moivre, Pierre de Montmort, Thomas Bayes, Pierre-Simon Laplace, Carl Friedrich Gauss, and others.

Jacob Bernoulli was the first to elaborate the so-called classical concept of probability, although it had already been implicit in the work of Huygens. Classical probability is defined by the share of favorable events in a given set of events under the assumption that all events in the set are equally possible. This concept of probability was, to the best of my knowledge, never used in the scholastic tradition before the middle of the seventeenth century. It

⁸⁴The exchange of letters between Pascal and Fermat in 1654 is generally considered as the starting point of modern probability. For an extended portrayal of the event, see Devlin (2008).

⁸⁵Montmort's *Essay d'analyse sur les jeux de hasard* appeared in 1708, but Bernoulli's posthumously published work was written earlier. Use of the term probability in connection with the calculus of chances can be documented for Leibniz in unpublished writings and in letters to and from Bernoulli from the 1670s onward, see Bernoulli (1993: 109, 116, 123, 128, 143); Schneider (1981); Sylla (1998).

obviously harks back to long-standing treatments of contingency, necessity, and possibility, but as a concept of probability, it is apparently genuinely modern.

Bernoulli and other advocates of modern probability in the seventeenth and eighteenth centuries also used a frequentist—or perhaps its better to say nascent frequentist—understanding of probability. Authors of mortality tables, treatises concerning population development and similar areas of applied statistics began to derive probabilities in theoretically unfounded ways from the relative frequency of events. Jacob Bernoulli supplied the conceptual groundwork for such endeavors by introducing the concept of a-posteriori probability as the ratio of observed favorable events to a presumed totality of equally possible events. The Swiss mathematician Johann Heinrich Lambert (1728–1777) stated: “The more frequently an event occurs, the more probable it is in itself”. This is, however, not yet the modern frequency interpretation of probability as explicated, for instance, by Ludwig von Mises in the twentieth century. Modern frequentism defines probability as the limit of a relative frequency under the assumption that the number of observations is infinite, but we cannot elaborate the evolution of modern frequentism from Bernoulli to Mises or thereafter here. Let us just register that early authors on mathematical and applied probability endorsed a primitive frequentist notion of probability. This notion was already fully quantitative, denoting a quotient of favorable events to a total of observations. Thereby, it went beyond the older Aristotelian concept of *ut frequenter* probability, which did not refer to a specific quotient, but only to something that ‘almost always’ or ‘in most cases’ happens.

Finally, it should be noted that Bernoulli and other early probability theorists were not exclusively concerned with the probability of events, as is sometimes purported. They also wrote about the probability of the truth and falsehood of propositions. Bernoulli referred to the probability of juridical presumptions, a traditional theme of scholastic jurisprudence. It is therefore wrong to assume that the first theorists of mathematical probability were concerned with events instead of opinions. They did deal with opinions (juridical presumptions are opinions), quantifying the degree to which evidence or reasons indicated their truth.

1.2 Modern interpretations of probability

The treatment of the ‘problem of points’ in the early modern era has already yielded some links to contemporary scholastic probability, or at least to contexts such as the moral and legal regulation of aleatory contracts, that were still dominated by scholastic conceptualizations. A further linkage can be gleaned from a comparative inspection of modern and scholastic interpretations (or concepts) of probability. Overviews of modern interpretations of probability usually distinguish at least three different approaches:⁸⁶

- quasi-logical approaches: probability as a measure of objective evidential support,
- degree-of-confidence or degree-of-belief approaches: probability as a measure of subjective graded belief or confidence,
- feature-of-the-world approaches: probability as a measure for Indeterministic features of the world.

These different interpretations of probability do not call for distinctive mathematical approaches. All interpretations are compatible with the standard mathematical definitions and rules for probabilities, that is, they fit a representation as real numbers in the zero-to-one interval, whose logical totality can be summed up to the number one, etc.⁸⁷ Interpretations of probability do not alter the mathematical structure of probability theory; instead, they deal with the meaning of ‘probability’, or in other words, with what probability is.

Take the quasi-logical (aka evidential) approaches, for which an event is probable to the extent that evidence or reasons support the expectation that it will occur (or has occurred). A probability of 0.7 then means that the reasons or evidence at hand confirm that the event will occur in 70 percent of cases or with a certainty that amounts to the degree 0.7. If the respective assessment relies on the objective information a person has, it will be a subjective probability; if it depends on objective evidence or reasons, regardless of a person’s beliefs, it will denote an objective probability. In any case, however,

⁸⁶See, e.g., Hájek (2011).

⁸⁷The modern probability calculus is defined by the Kolmogorov Axioms, but it is not necessary to be more specific here. The mathematical basics can be gleaned from any textbook on probability theory.

the type of probability we are talking about need not necessarily refer to events. It can also pertain to expectations concerning the truth and falsity of propositions, and the extent to which they are supported by evidence or reasons.

The scholastic notions of intrinsic and extrinsic probability are best classified as forms of quasi-logical or evidential probability. Scholastics often referred to the foundations (*fundamenta*), motives (*motiva*), or reasons (*rationes*) for considering a proposition to be true. It seems clear—at least in the intrinsic case—that the foundations (motives, reasons) in question sometimes amounted to what we call evidence, and usually to what the scholastic and modern traditions alike call reasons. Extrinsic probability played a more indirect role. The epistemic authority of competent observers or evaluators was accepted as a reason to presume the intrinsic probability of their judgments. Hence, a quasi-logical or evidential understanding of probability existed (and was influential) in the scholastic tradition, at least after the dual intrinsic/extrinsic conceptualization of probability was introduced in the late sixteenth century. Arguably, however, the medieval endoxical notion of probable opinion, which is often translated as ‘approved opinion’, was already, at least in intent, evidential. Approval by all, many, or the wise was accepted as an indication, and hence in a weak sense as evidence, for the probability of opinions.

Degree-of-confidence and degree-of-belief approaches to probability also existed in the scholastic tradition. From the twelfth century onward, the concept of probable opinion marked a degree of confidence in the truth of a proposition. As Hugh of St. Victor famously remarked, probable opinions ranked below faith or conviction (*fides*) and science as to confidence in the truth of a proposition (see Chapter 1). Conviction represented assent with maximal subjective confidence in the truth of a given proposition. Knowledge (*scientia*) marked a still higher level of confidence, at least in secular matters, because it adds insight into the causes or reasons of truth to maximal subjective confidence, thus merging subjective with fully warranted confidence. Below probable opinion, temerarious opinion and suspicion represented even lower categories in the scholastic rank order of confidence. The degrees in this rank order formed steps on a scale and not yet a

continuum, of course, but they were called degrees (*gradus*) in the seventeenth century by scholastics and John Locke alike.⁸⁸

Moreover, some scholastic authors in the seventeenth century began to explicitly distinguish between subjective and objective probability, literally using the terms ‘subjective’ and ‘objective’ (see Chapter 8). Subjective probability was judged from the perspective of an observer or evaluator, thus indicating his or her state of mind. Since probability justified assent according to the strength of its ‘foundations’, scholastic subjective probability expressed a degree of belief. However, to the best of my knowledge, scholastics did not measure degrees of belief as quotients of betting on the truth of the propositions.

Finally, feature-of-the-world approaches of probability occurred in scholasticism in various ways. A predicate could be called probable if it inhered contingently and frequently, but not necessarily in an object. The inherence in question was considered a fact about the world, as was the frequency of events in a sequence of events. Aristotle had already called events that occurred frequently (*ut frequenter*) probable. Scholastics made ample use of this conceptual opportunity.

On the whole, it seems that all major modern interpretations of probability had medieval or even ancient precursors. Probability has always been a word with many meanings, which could be grouped around a few main axes. Such structural analogies or similarities document a coarse thread of conceptual continuity between premodern and modern versions of quasi-logical, degree-of-confidence, and feature-of-the-world interpretations of probability. This is worth noting, because it is sometimes assumed that premodern and modern uses of the word ‘probable’ have very little similarity. The resulting neat separation between the history of probability and the history of premodern probability-related terms is, however, an overstatement and robs us of insights that can be derived from an investigation of continuities. To better understand the continuity that existed, we need to take a closer look at the period of overlap between the old scholastic and the new probabilistic paradigm, and at the middle decades of the seventeenth century in particular.

⁸⁸See, e.g., Bresser (1638), lib. 3, cap. 1: “Qui sint gradus ac qualitates opinionis seu conscientiae?”; Locke (1990), lib. 4, 16, 1; lib. 4, 19, 1; Ayers (1991: 104).

2. Caramuel's contribution

The first extended treatise on a wide range of applications of the newly invented calculus of chances was written by a scholastic author. Juan Caramuel y Lobkowitz (1606–1682), was one of the leading authors of the probabilism debate in the middle of the seventeenth century (see Chapters 7 and 9). In 1670, he published *Mathesis biceps*, a huge survey of the state of the art in mathematics. In a first tome, Caramuel deals with traditional fields of mathematics, in a second, entitled *Mathesis nova*, he discusses new fields, among others, the calculus of chances. The entire discussion is contained in a chapter on combinatorics, whose first part is an extended treatment of games of luck called *kybeia*, indicating that Caramuel considered the combinatorial investigation of games of luck as a new branch of mathematics (which, in fact, it was soon to become). The second part is dubbed *arithmomantica*, the new science of “prediction through numbers”, or as we would say, the science of statistical or probabilistic prediction. These are the only kinds of numerical predictions addressed by Caramuel; he clearly did not include astrology under the rubric of *arithmomantica*.

Caramuel regarded this new science, among other things, as a handmaiden of theology; however, this does not imply conceptual homogeneity. It has been noted that in his treatment of games of luck, Caramuel did not use the language of probability, which he so amply employed in his theological writings.⁸⁹ Strictly speaking, he separated the calculus of chances from considerations of probability, a field in which he apparently continued to adhere to old scholastic concepts. However, at closer inspection, this claim needs to be tempered. Caramuel did not adhere to traditional scholastic notions of probability, but developed his own innovative definitions of probability, which differed from those of his scholastics peers. Moreover, he modified his concept of probability over time, reaching a final stage around 1675. Whether his last approaches to probability and uncertainty reflect the mathematical insights of the *Mathesis nova* is an interesting question. In my view, this is the case, as indicated in Chapter 9. It should also be noted that Caramuel occasionally used the language of probability in relation to insurance risks. Caramuel's *Theologia moralis fundamentalis* contains several numerical considerations of risk, in the 1652 as well as in the 1657 edition. In 1652, Caramuel questioned how the categories of evident, remote, and

⁸⁹Ineichen (1998: 7).

probable risk (*periculum*) are to be conceived, using the example of a ship in a gale for the explanation of evident mortal risk.⁹⁰ In his example, Dutch merchants lose two, three, or five ships out of one hundred, which is a small risk (*periculum leve*). Insurers can, according to Caramuel, quantify risk on this basis. The proposition ‘This ship will sink’ may then be as ‘probable as five’ (*probabilis ut quinque*). The proposition ‘This ship will not sink’, on the other hand, is as ‘probable as one hundred’ (*probabilis ut centum*). It does not matter here that Caramuel made an elementary mistake, because the probability that the ship will not sink would, in fact, be ‘as ninety-five’.⁹¹ What matters is that he uses the term ‘probable’ in his numerical example, not ‘chance’ or ‘uncertainty’. Apparently, the step from chance to probability and vice versa was a small one, even at the outset of modern probability.

Cases of insurance are, however, not prominent in the probabilistic sections of the *Mathesis nova*. Here, the context of games of luck predominates, including lotteries and many kinds of bets. Robert Ineichen has, in my opinion, written the best and most in-depth analysis to date of Caramuel’s reasoning, with which I largely agree.⁹² The nexus between games of luck and moral theology is represented by the question under which conditions gambling might be morally permitted. Permissibility, as many theologians of the seventeenth century including Caramuel assumed, depended on the fairness of the gamble, and a gamble was fair if the risk taken by the players equaled their stake (see below Section 4). Stakes should therefore correspond to the risk of losing and the chance of winning. Christiaan Huygens demonstrated how this still vague idea could be spelled out mathematically, with a stake in a fair gamble equaling the expected value (*valor expectationis*) of the game. Caramuel adopted many examples of Huygens’ *De ludo aleae*, going as far as to include a long segment of the treatise in his presentation, but erroneously ascribing it to the Danish mathematician Longomontanus. Ineichen claims that Caramuel had independently tackled many of the problems Huygens was preoccupied with and only learned about the latter’s treatise later. Otherwise Caramuel would probably have acknowledged the

⁹⁰Caramuel (1652: 152), fund. 11, n. 315.

⁹¹Knebel (2000: 110) suggests that Caramuel consciously used probabilism to conceive of numerical probabilities which do not add to unity. Instead, I think that Caramuel made a mistake. He speaks of one hundred outgoing ships of which two, three, or five are lost. The probability that a ship does not sink can then not be ‘as one hundred’ – probabilism notwithstanding. Caramuel simply overlooked that the one hundred are his entire collective, and not the number of adverse events.

⁹²Ineichen (1998).

provenience of the problems, since he readily quoted the work of Longomontanus (that is, Huygens) in other respects.

In any case, Caramuel's analysis of games of luck marked the state of the art of this branch of mathematics before 1670. He correctly calculated the expected value of throws of one, two and three dice. He discussed various versions of the 'problem of points', which are also found in Huygens. Ineichen emphasizes that some results go beyond Huygens. Caramuel arrived at the correct answer to the question how much a player should stake if he has to win n times before the opponent wins once: $2^n - 1$ monetary units. This result was not reported by Huygens, but appeared after Caramuel had published it in Bernoulli's *Ars conjectandi*.⁹³ However, Caramuel also offered wrong solutions for versions of the 'problem of points', which Huygens had already resolved, e.g., for versions involving three players.

Caramuel's treatment of statistical prediction (*arithmomantica*) contains a long analysis of a lottery practiced in Genoa, but which he ascribes to the ideal community of Cosmopolis. It was long established practice in Italy to mitigate the risk of political collusion and trickery by randomly drawing the names of potential magistrates from a bag of lots. (In the fifteenth century, the Medici, being unable to suppress the randomizing procedure as such, secured their power by manipulating the lots that went into the bag.)⁹⁴ Citizens privately placed bets on the outcome – a nice way to hedge one's political prospects. Caramuel calculated the odds of predicting a winner from one hundred lots. For five drawn magistrates, for instance, he calculated the probability of a particular candidate to be among those drawn. Caramuel's next step was to attempt to correctly determine the chance of predicting two, three, four, or all of five drawn names. Moreover, he investigated the number of different pairs of candidates a player has to bet on if he is to predict two out of five winners with certainty.

With these analyses, Caramuel not only addressed the most advanced problems of a calculus of chance around 1670; more importantly, in my view, he envisioned a mathematical science of politics, because *arithmomantica*, the new science of numerical prediction, largely focused on the momentous field of politics. In other words, Caramuel is probably the first precursor of modern theories of voting and social choice, thus rendering true his statement that the analysis of games of chance could have 'serious' applications. Randomization

⁹³See Ineichen (1998: 19).

⁹⁴See, e.g., Peterson (1985: 86).

through lotteries was used in premodern politics in many ways, and Caramuel's contemporaries were certainly aware of the importance of predicting the outcomes of such processes. Moreover, lotteries became an increasingly important element of state finance in the seventeenth century. In a very immediate sense, knowledge was, in these respects, power.

Ineichen, who does not address the political ramifications of Caramuel's analysis, closes his exposition of *arithmomantica* with the remark that Caramuel also discussed the apparently established practice of betting on the next holder of a chair at Salamanca's famous university.⁹⁵ This seems to be just another application of the aforementioned mathematical approach and is therefore skipped by Ineichen. However, the Salamanca betting problem is not really simply more of the same. It contains the first reference to what today is called a 'dutch book', that is, a system of bets that will lead to a certain gain or loss for its holder. Among scholastics, the Salamanca betting problem was a much discussed conundrum of the morality of games of chance. Caramuel quoted the discussion of this case in the works of the Spanish theologians Pedro de Ledesma (1544–1616), Tomás Sanchez (1550–1610), and Enrique de Villalobos (d. 1637). The problem in question arises from a system of bets an agent (let us call him X) makes with four other persons. Each of those four persons supports a different candidate for the posted professorship, and we therefore have four candidates in total. X bets 100 gold coins with each candidate's supporter in an equal stakes gamble on the event that the supporter's favorite will not succeed. Hence, X will definitely reap 200 gold coins from his system of four bets (three winning bets minus the lost bet). Many moral theologians considered such certain gain bets to be unfair and illicit. Ledesma wrote that 'unequal' games are illicit, and Villalobos added that no one is entitled to collect a stake if he was sure to win.⁹⁶ On the other hand, each bet in itself was considered licit according to the theological regulations of the time.⁹⁷ Hence, the totality of all four bets seemed licit as well.

⁹⁵Caramuel (1670), syntagma 6, q. 4: De concertationibus Salmaticensibus.

⁹⁶Ledesma (1611: 728), pars 2, tract. 32, concl. 7, diffic. 2: "En este caso es forcoso aver de ganar a los tres, y es cosa cierta ... Por lo qual parece ser desigual el tal contrato, y por consiguiente no ser licito". Villalobos (1682: 411), tract. 28, diff. 6, n. 2: "Y hace de advertir, que quando uno que apuesta sabe de cierto que gana, no lo puede llevar".

⁹⁷It may be a bit surprising for modern readers, who have the advantage of being familiar with mathematical probability theory, that Ledesma considered the single bets in the Salamanca scenario as fair (*igual*). With four candidates and presumed equal chances, X has a three to one chance of winning with respect to each bet. But the parties to a contract need not have equal perceptions of risk. A bet was licit if each side could reasonably assume to have a fair chance of

Caramuel agreed with Ledesma and Villalobos in terms of condemning the Salamanca system of bets, and he indicated that similar attempts at securing gains were made in relation to the Genoese political lottery. The prohibition of systems of sure gain bets has profound repercussions for decision theory. Today, the possibility of making a Dutch book against agents who violate the basic requirements of standard theories of subjective probability is one of the most prominent, albeit also much disputed reasons for considering such agents irrational.⁹⁸ The discussions on the Salamanca betting problem in Catholic moral theology reveal that the rejection of Dutch books has theological roots. Initially, Dutch books were considered problematic because they implied unfair gains, not because they were irrational with respect to the loser. That is, modern decision theory abandoned the moral perspective of much of the early probabilistic reasoning, focusing instead on the players' rationality or irrationality. Yet it remains unclear why agents should fear Dutch books to such an extent to consequently generally conform to the familiar standards of subjective probability. There is no obvious way to determine the magnitude of rational fear of Dutch books, and in some areas of probabilistic reasoning, bookies simply do not operate. It might therefore well be the case that modern decision theory's aversion to Dutch books to some extent still reflects previous moral qualms.

What, in final consideration, is Caramuel's role in the history of modern probability? Textbooks on the history of probability often fail to mention him, not least because he was ignored or belittled by better mathematicians among his contemporaries.⁹⁹ Ineichen's careful assessment indicates that this position towards Caramuel was unfair. My own view falls somewhere between these two camps. Caramuel may indeed have independently tackled Huygens' problems which, as Huygens himself remarked, occupied many mathematicians. Yet Caramuel's published solutions often seem to depend on Huygens' guidance. When Caramuel addressed loss rates of maritime insurance in the *Theologia moralis fundamentalis* of 1652, Huygens' treatise did not yet exist (and neither did numerical probability as developed by Pascal and Fermat). At this stage, Caramuel still made the elementary mistake of

winning. This was arguably still the case in the Salamanca scenario, if the assumption of equal probability is abandoned.

⁹⁸See Schick (1986).

⁹⁹Hald (2003: 184) states that Caramuel did not venture beyond Huygens and apparently only mentions him because he is mentioned by Todhunter (1865). Todhunter (1865: 44) offers a bit more information on Caramuel but focuses on his *Kybeia* and erroneously considers him a Jesuit.

forgetting to subtract the unfavorable cases from the entirety of 100 ships to determine the probability of a favorable outcome. The same mistake is still found in the 1657 edition, although the whole passage was altered by adding a Pascal-like betting consideration concerning the risk of losing God's friendship and the unspecific admonition that both the existence and quantity of risk were of relevance for an assessment of risk.¹⁰⁰ *Mathesis nova* marks a completely new level of familiarity with the mathematics of chance, one which Caramuel apparently only obtained after Huygens' treatise had been published in 1657.

Caramuel's main contribution to the history of modern probability may therefore well consist in the visionary aspects of *arithmomantica*. Caramuel was, to the best of my knowledge, the first author to envision the use of a calculus of probability in politics and decision making beyond the empirical study of mortality tables and economic statistics. He analyzed elective systems that involved random choices, and understood the unfairness of 'Dutch books'. No one else conceived such a broad application of a calculus of chance before 1670. Jacob Bernoulli soon took steps in this direction, which became more widely known, but he probably (without acknowledging it) was influenced by Caramuel's treatise.

3. *A new scholastic frequentism*

'Frequentism' usually refers to an interpretation of probability, but in the present context, it denotes an entire family of interpretations. It might denote:

- (a) 'Probable' is what frequently (*ut frequenter*) occurs.
- (b) The relative frequency of events in a sequence of events is their probability.
- (c) The limit of an event's relative frequency in an infinite sequence of events is its probability.

Frequentism in twentieth-century philosophy of probability is a version of (c). Medieval frequentist approaches to probability instantiate (a). Early quantified approaches, mainly from the eighteenth century, resort to (b). In

¹⁰⁰Caramuel (1657: pp. 134), fund. 11, n. 530ff.

my present usage of the term, frequentism is a quantitative approach to probability, which relies in one way or other on the relative frequency of events (as in (b) and (c)).¹⁰¹ Given this terminological decision, the view that ‘probable’ denotes what frequently occurs is categorized not as frequentist, but as proto-frequentist, because it does not operate with a numerical quotient of occurrences. It simply assumes, without numerical specification of the predicates ‘by far most’ and ‘few’, that something happens in the majority of cases and is absent only in a few.

The *locus classicus* for such a notion of probability is Aristotle’s *Rhetoric*, book 1, chap. 2, 1357a35.¹⁰²

“A probability is a thing that happens for the most part – not, however, as some definitions would suggest, anything whatever that so happens, but only of it belongs to the class of what can turn out otherwise, and bears the same relation to that in respect to which it is probable as the universal bears to the particular.”

Usually, only the first part of this complex sentence is quoted, followed by an assurance that this definition applies to contingent events. Aristotle’s proto-frequentist definition only asserts that a probable event has to occur in most cases, but to the best of my knowledge, scholastic authors commonly interpreted it to refer to cases in which something happened by far most of the time. Miguel de Elizalde and Francisco Palanco, for instance, equated the Aristotelian proto-frequentist notion with ‘what nearly always (*fere semper*) happens’.¹⁰³ Aquinas called it a probable certainty if a person’s judgment was mostly right and wrong only in a few cases.¹⁰⁴ A true numerical representation

¹⁰¹A relative frequency for a type of occurrence *k* is the number of occurrences of *k* in a total sequence of *n* occurrences, divided by *n*. One example is the number of occurrences of ‘6’ in 100 throws of a dice.

¹⁰²Aristotle (1984); Judson (1991); Winter (1997). See references to this passage, e.g., in Elizalde (1670), pars 1, lib. 2, q. 16, §1; Esparza (1669), appendix, pars 2, art. 90; Palanco (1694), q. 22, n. 3; Terill (1669), q. 2, ass. 4.

¹⁰³Elizalde (1670: 306), pars 1, lib. 2, q. 16, §5: “Dixit in definitione Aristotelis, ad probabilitatem requiri, quod principium, seu medium assumptum in principio, per quod conclusio vel res aliqua est probabilis, aliter quidem se habere posset, tamen fere semper contingeret”. Palanco (1694: 191), q. 22, n. 3: “Dico secundo quod probabile sic recte definitur: ‘Quod fere semper, aut plerumque ita contigit’. Ita expresse Ari Rhet lib, 1, cap. 2”. Palanco also referred to a similar definition of Aquinas quoted below.

¹⁰⁴Aquinas (1948), II-II, q. 70, a. 2: “It is sufficient that you obtain a probable certainty, which means that in most cases (*ut in pluribus*) you are right and only in a few cases (*ut in paucioribus*) are you wrong.” On Aquinas’ use of *ut-frequenter* probability, see Byrne (1968: 224); Franklin (2001: 124, 203); Kantola (1994: pp. 40).

of the frequency of events in definitions or explanations of probability apparently did not occur before the seventeenth century. It is therefore inaccurate to speak without qualification of medieval frequentist notions of probability. Some medieval uses of probability contain numerical elements, of course. Alexander of Alessandria (1268–1314), for instance, claimed that it is more probable that persons aged twenty-five will live up to sixteen more years than die within the next eight years.¹⁰⁵ Such numerical considerations, however, did not apparently involve the calculation of relative frequencies. It also deserves to be noted that the Aristotelian proto-frequentist approach to probability peacefully coexisted with other approaches, as, for instance, endoxical probability. Medieval scholastics used both of them, and did not declare one as being the right approach to probability and the other as being wrong. As we will see shortly, this is no longer generally true for seventeenth-century scholasticism, nor does it hold for modern frequentist interpretations of probability. Both view the frequency approach as the correct one to the meaning of probability.

Sven Knebel's rich analysis of Baroque scholastic dealings with the concept of moral necessity shows that a new form of frequentism arose in the seventeenth century.¹⁰⁶ He also documented that probability was explicitly ascribed to events at the time. However, this was a novelty in only some respects. The ascription of probability to events had—without using the Latin word *eventus*—already been commonplace in medieval Aristotelian proto-frequentism. What seems to have been new was the explicit use of the term 'probability of events' (*probabilitas eventus*) in seventeenth-century scholastic texts.¹⁰⁷ This terminological step deserves to be highlighted, not least because historians of probability are often oblivious to the scholastic progeny of some of their terminology. In the remaining, however, I will focus on other developments that drove seventeenth-century scholastic frequentism beyond the pale of Aristotelian proto-frequentism. Moreover, I will broaden the base of authors discussed by Knebel. Knebel approached frequentism primarily through the writings of Pietro Sforza Pallavicino, and to a lesser degree, Martín de Esparza and Christoph Haunold. I will add Antonio Pérez, Miguel de Elizalde, and Francisco Palanco to these authors. In consequence, I will

¹⁰⁵Alexander of Alessandria, *Tractatus de usuris*, c. 72, Y f. 146r., quoted in Kantola (1994: 55). On this example, see also Schuessler (2014b).

¹⁰⁶Knebel (2000: pp. 92).

¹⁰⁷See Knebel (2000: 103) quoting a text of Alderete from 1662: "semper iudicium erit non de ipso eventu, sed de probabilitate ipsius".

offer a broader treatment of frequentism than Knebel, but at the cost of less metaphysics and less modality.

We will see that new trends in seventeenth-century scholastic frequentism can be traced back to the Jesuit theologian, Antonio Pérez (1599–1649). Pérez, called ‘the astonishing (or wonderful) theologian’ (*theologus mirabilis*), was a longtime professor in Valladolid, Salamanca, and the Jesuit Collegio Romano (from 1641–1648).¹⁰⁸ His influence was as vast as his views and arguments were peculiar.¹⁰⁹ Pérez’s unconventional views may have constrained his career to some degree, but as a teacher, he influenced some of the best and brightest among contemporary Jesuits, such as Sforza Pallavicino, Esparza, Elizalde, and Gonzalez. Except for Gonzalez, these scholars became closely associated with the development of frequentism as a doctrine of probability. It is therefore not surprising that Carlo Casnedi (1643–1725) named Pérez as the originator of the respective movement.¹¹⁰

Pérez, like so many others, differentiated between Aristotle’s endoxical approach to probability in the *Topics* and the proto-frequentist approach of the *Rhetoric*. However, he added that the second approach was better suited to define probability, because the first relied on properties which depend on the second.¹¹¹ This is an important claim, and distinguishes the new scholastic approach to frequency in the seventeenth century from older versions which, nevertheless, continued to be held. According to this new approach, the meaning of probability was best expressed by a frequency definition, whereas endoxical probability was only a spin-off based on mere correlates of probability, which did not express the nature of probability. In medieval usage, both approaches to probability had co-existed peacefully, and to the best of my knowledge, no efforts had been made to flag one as being more foundational than the other.

¹⁰⁸On Pérez’s career, see Schmutz (2009) and the entry in *scholasticon* (scholasticon.ish-lyon.cnrs.fr). Antonio Pérez SJ, the Jesuit, is not to be confounded with Antonio Pérez OSB (1559-1637), the Benedictine, author of the famous confessor’s handbook *Laurea Salmantina*.

¹⁰⁹On Pérez’s influence on metaphysics, on Leibniz, and on the development of the theodicy problem, see Ramelow (1997); Knebel (2000: 542 and passim); Schmutz (2009).

¹¹⁰Casnedi (1711), tract. 2, disp. 4, sec. 2, §3, n. 100. Knebel (2000: 116) mentions Andreas Eudaemon-Ioannis as another early bird to whom Sforza Pallavicino harks back, but neither Knebel nor I were able to ascertain this source.

¹¹¹Pérez (1668: 70), tract. 1, disp. 4, cap. 2, n. 21: “Haec secunda definitio mihi videtur melior, quia illa prima potius continet proprietatem, quae ad hanc secundam sequi solet”.

Pérez did not venture beyond proto-frequentism, stating that ‘probable’ denotes ‘what almost always (*fere semper*) happens’.¹¹² He did, however, address the question whether the frequency view of probability stood in conflict with both-sided probability, and thus the established usage of probability in moral theology. This question troubled scholastics and prevented many from sympathizing with the new frequency approach, and by implication with the new mathematics of probability, which in their eyes rendered the theological usage of probability impossible. Pérez assuaged such fears by claiming that both-sided probability remained possible, even under proto-frequentist premises. Different observers could base their probability judgments on different frequencies. Take the case of an irascible mother who loves her child. Observer A may know that the mother usually (that is, most frequently) dislikes her child when she is upset. Observer B only knows that mothers tend to love their children and remains uninformed about our particular mother’s occurrent state of mind. Hence, A and B can arrive at different, yet equally justified judgments about the mother’s prevailing state of mind on the basis of their respective proto-frequentist (or frequentist) beliefs. This, of course, is only possible because their state of information differs. Pérez was therefore right in distinguishing between an objective and a subjective notion of probability (for further details, see Chapter 8). But this is how far he went. He did not move to a deeper analysis of the crucial question whether frequency-based approaches to probability are compatible with both-sided probability against the same informational background.

It was Pietro Sforza Pallavicino (1607–1667), a colleague of Pérez at the Collegio Romano in the 1640s and a cardinal after 1659, who more forcefully put this question on the scholastic agenda. Like Pérez, Pallavicino set out from Aristotle’s reference to occurrence ‘for the most part’ (*ut frequenter*) in his analysis of probability, but added some important interpretative changes. He did not equate ‘for the most part’-probability with a general regularity, to which only a few exceptions existed, but interpreted it as a sequence of events in which an event occurred more often than not, that is, more than in half of the cases.¹¹³ Hence, he introduced a specific numerical threshold for probability, where ‘almost always’ had previously referred to an unspecified quantity. Moreover, Pallavicino centered his discussion of physical and moral

¹¹²See Pérez (1668: 70), tract. 1, disp. 4, cap. 2, n. 21: “Probabile inquit [Aristotle], esse, quod fere semper fieri solet.”

¹¹³Sforza Pallavicino (1649: 288); Knebel (2000: 112).

necessity (or possibility) on examples from gambling, asking how likely the repeated occurrence of the same number was in a series of throws of several dice. He claimed, for instance, that the occurrence of thirty subsequent triples of ‘ones’ in thirty throws of three dice stands to the total number of possible outcomes in a proportion that is smaller than one to the number of sand corns with which the universe could be filled.¹¹⁴ This is an instance of metaphorical pseudo-quantification because Sforza Pallavicino presumably had no idea how many sand corns the universe can contain. Yet it already broaches the idea that the probability of events can be quantified by the quotient of possibilities for their realization to the total number of possibilities (that is, the ‘classical’ view of probability). Pallavicino’s considerations indicate that he was on the path towards modern probability and modern probabilistic reasoning before 1649, the year when his considerations were published (remember, the exchange of letters between Pascal and Fermat in 1654 marks the beginnings of the modern calculus of probability). In making his comparison, Pallavicino must have had some idea of the immense number of combinatorial possibilities for the outcomes of thirty rolls of three dice. Such combinatorial intuitions could be gleaned from early results in combinatorics, such as those of his fellow Jesuit Christoph Clavius or Marin Mersenne’s. Moreover, within a few years, the Jesuit Athanasius Kircher and the Spanish scholastic Sebastian Izquierdo would publish long treatises on combinatorics.¹¹⁵ Interest in the subject must have been strong in the Collegio Romano.

For Pallavicino, relative frequencies of events between one half and unity resulted from an inclination of free forces, with a superadded voluntative element. Without voluntative intervention, natural necessity would always produce the same type of event or true arbitrariness would lead to an equal number of occurrences on each side. Yet how Pallavicino quantified probabilistic inclination is presently of more interest than his metaphysics.¹¹⁶ If an event occurred twice and its reverse ten times, the inclination was two in favor of the event and ten for the reverse.¹¹⁷ In other

¹¹⁴Sforza Pallavicino (1649: 477), tom. 1, lib. 2, cap. 6: “quod tres tali in triginta iactibus semper producant tres unitates, est unum individuum ex tot individuis possibilibus, quae longe excedunt numerum minutarum arenarum quae a firmamento ad centrum complerent totum universum”.

¹¹⁵See Knobloch (2013).

¹¹⁶The metaphysical background of Sforza Pallavicino’s and other Baroque scholastics’ notions of physical necessity has amply been analyzed by Knebel (2000).

¹¹⁷Sforza Pallavicino (1649: 473), tom. 1, lib. 2, cap. 6: “accideret bis et oppositum decies utique haberet in ordine ad hunc casum duos gradus inclinationis pro una parte et decem pro altera”.

words, Pallavicino had departed from proto-frequentism and had already arrived at a numerical frequentist quantification of probability a few years before Pascal and Fermat exchanged their momentous letters on the calculation of chances.

Pallavicino used his frequentist notion of probability to thwart the possibility of both-sided probability. A proposition that was probable because it coincided with truth more than half of the time could not have a negation that was also probable in the same way.¹¹⁸ With this rejection of both-sided probability, Pallavicino abandoned the scholastic probabilistic paradigm and entered the discourse of modern probability, in which the probabilities of a proposition and its negation sum up to 1. Both propositions thus cannot simultaneously be ‘probable’, given that ‘probable’ signifies a probability of more than 0.5. However, Pallavicino was not yet ready to follow this train of thought all the way through to its practical conclusion. The traditional treatment of probable opinions in moral theology built on the assumption of both-sided probability. Without this assumption, the scholastic pluralism of opinions lost its underpinnings. Moreover, probabilism became an impossibility. Pallavicino backed away from the full consequences of his new understanding of probability by distinguishing between the formation of opinions and action-oriented probabilistic reasoning. The impossibility of both-sided probability was only to be applied to the formation of opinions, while assessments of the morality of actions were to still be based on familiar theological standards. This was more or less a subterfuge, because the judgment of moral action in light of the ‘probable conscience’ (*conscientia probabilis*) could not be isolated against the implications of a frequentist approach to probability for the formation of opinions (or beliefs). Pallavicino seems to have admitted this, at least in private conversation. Anti-probabilists of the second half of the seventeenth century claimed to have testimony that he had renounced probabilism.¹¹⁹

Anti-probabilists advertised Pallavicino’s change of mind because a new understanding of probability, which excluded both-sided probability, could be used as a weapon against probabilism. Most anti-probabilists were

¹¹⁸Sforza Pallavicino (1649) lib. 3, cap. 6, n. 114: “Quippe uni et eidem intellectui non potest in eodem instanti videri probabilis utraque pars contradictionis. ‘Probabile’ enim ab Aristotele definitur ‘quod plerumque contingit’. Non potest autem dari aut credi mutuus excessus inter duo in frequentia contingendi, quare si omnibus pensatis altera pars mihi apparet probabilis, altera tunc respectu mei intellectus non potest esse probabilis”. See also Knebel (2000:113).

¹¹⁹Gonzalez (1694), diss. 13, §11, n. 76 refers to a written statement by Niccolò Pallavicino concerning a conversation with Cardinal Pietro Sforza Pallavicino.

what came to be called probabiliorists in the second half of the seventeenth century. They claimed that a person can only assent to a proposition she considers more probable than its negation. Moreover, in their eyes, a moral agent had *ceteris paribus* to choose the most probably right action over less probably right ones as a premise for action. For some probabiliorists, such as Miguel de Elizalde (see below), these demands did not conflict with the traditional norm that the probable permissibility of an action sufficed to insure against sin. If ‘probable’ meant ‘right in more than half of the cases’, the more probable side *was* the uniquely probable option. Most Catholic moral theologians, however, refused to abandon both-sided probability. The peaceful coexistence of different positions in moral theology, propagated by various schools (*viae*) and networks of thought, depended on their acceptance as conjoinedly reasonably tenable. The new frequentism of probability, by contrast, seemed to imply that, all things considered, only one of the rival schools could be reasonably adoptable. This assault on scholastic pluralism was unacceptable to many theologians and induced them to reject Pallavicino’s approach – it also rendered them wary of the modern probability calculus. Christoph Haunold (1610–1689), a German theologian who commented on Pallavicino’s approach, called it ‘singular’, that is, isolated.¹²⁰

However, did he not thereby also reject the old Aristotelian proto-frequentist approach? After all, if a proposition and its negation could not both be true in more than half the cases, neither could they both be ‘almost always’ true. Harmonizing proto-frequentism with both-sided probability required some explanation once the issue was on the table (which apparently had not been the case in the Middle Ages). We have already seen how scholastics attempted to solve this problem based on the example of Antonio Pérez. Proto-frequentism and frequentism could only be rendered compatible with both-sided probability, if different bases of evidence for agents were assumed. The respective bases of evidence also needed to possess a suitably frequent, apparent, credible, or observable nexus to truth to serve as premises for the actions of reasonable and epistemologically diligent agents, that is, to allow sin-free action on both sides. Haunold, who had Pallavicino’s analysis to answer to, was more explicit in this respect than Pérez. He differentiated between restricted and wide bases of evidence. Examples demonstrate what

¹²⁰Haunold (1670), lib.2, tract. 1, contr. 3, §1, n. 255.

he meant with this distinction.¹²¹ If Peter wins more often than Paul in a game (say of cards) in which they regularly engage, and this information is the only relevant evidence base for a probability judgment, the proposition ‘Peter will win the next game’ is more probable than its negation. Moreover, the proposition ‘Paul will win the next game’ is not probable by frequentist standards. Yet it is also possible that the proposition ‘Peter will win the next game’ is assessed on the basis of a broader evidence base, including information gained from a predictor (*divinator*) who in the past has been right most of the time. In particular, Haunold seems to have assumed that the predictor was mostly right with respect to questions that exceed the outcome of games between Peter and Paul. The predictor says ‘Paul will win the next game’. If Peter mainly bases his probability estimation on the sequence of past games, and Paul relies on the judgment of the predictor, both can adopt a frequency-based belief that they will win the next game. If both kinds of information are usually reliable in separation, it is not clear how they should be weighed in combination, and reasonable persons can apparently hold different views on this. Hence, the possibility of a reasonable pluralism of opinions based on both-sided probability re-emerges. How the assumption of a predictor relates to normal contexts of moral theology can, of course, be questioned. Haunold duly adds a case of expert disagreement.¹²² Competent judges, each of whom is usually right, or can reasonably be believed to be right most of the time in a given field of inquiry, differ in their resolution of a case. This was the classical situation of both-sided probability in moral theology, interpreted here as one of competing frequentist assessments. In sum, both-sided probability was defensible on frequentist foundations if the evaluation of the available evidence allowed for different reasonable perspectives or reasonable alternative weightings. The fledgling paradigm of modern probability was not, however, open to such perspectival reasoning for a long time. It evolved in close collaboration with science and the dogma that

¹²¹Haunold (1670), lib.2, tract. 1, contr. 3, §1, n. 257: “Ponamus, e.g., quod Petrus, si ludat cum Paulo, saepius lucretur, quam perdat ... Quodsi vero ex parte Pauli appareret aliud motivum, v.g. quia aliquis divinator illi praedixit, hunc diem fore fortunatum, & ille divinator plerumque verum dicat, tunc potest simul et ex aequo reddi probabile, quod sit lucraturus, quia ille divinator plerumque verum dicit. Hoc autem motivum non tollit probabilitatem oppositi. Alioquin fieret, ut neutra pars esset in casu posito probabilis”.

¹²²Haunold (1670), lib.2, tract. 1, contr. 3, §1, n. 258: “Alius et clarius exemplum sit hoc. Ponamus duos, Petrum et Paulum, quorum uterque sit talis conditionis et veracitatis, ut soleat frequentius dicere veritatem quam mentiri ... [Peter and Paul hold contrary propositions] ... ergo in tali casu verissime judicare possum utrumque esse probabile, hoc est, unumquodque seorsim posse movere hominem prudentem ad assensum”.

empirical research provided unambiguous, one-perspective evidence. Not least for this reason, modern numerical probability never found a home in Catholic moral theology.

Another response to Pallavicino was published by Martín de Esparza (1606–1689), a colleague at the Collegio Romano. Esparza mentioned that he had become aware of the problems resulting from a frequency view of probability in discussions with Pallavicino at the Collegio, who had confronted him with the following argument (which we already have discussed).¹²³ What happens most of the time is probable (according to Aristotle). But it is a contradiction in terms to claim that the opposite of what mostly happens also occurs most of the time. Hence, it is also a contradiction in terms that the opposite of what is probable should itself be probable. In other words, in no clash of propositions can both sides be in fact probable.¹²⁴

For Esparza, this argument was too obviously sound to be derailed. He therefore separated Aristotelian proto-frequentist probability from the concept of probability as endorsed by theologians. Aristotle, claimed Esparza, intended his concept of probability for use in argumentation, syllogisms (i.e. logical deductions), and enthymemes (i.e. incomplete or implicit syllogisms).¹²⁵ Theologians, by contrast, were concerned with the legitimate use of probable opinions. These opinions were singular, pertaining to specific cases or actions, whereas Aristotle's aim was to analyze probable universal propositions, which could figure in chains of deduction. The probable opinions of theologians were credible or approvable propositions in Aristotle's sense (note: *approvable*, not merely *approved*), not *probabilia* in a narrow Aristotelian understanding of the term.

Esparza inveighed against the mixing of both conceptions. Aristotelian frequentist probability can never be both-sided, but theology needs a both-sided concept of probability. For scholastics, the teachings of Aquinas and

¹²³Esparza (1669: 80), pars 1, art. 90.

¹²⁴Esparza (1669: 79), pars 1, q. 89: "Arguitur autem sic. Probabile est, quod plerumque contingit: Sed repugnat manifeste in terminis, ut contradictorium eius, quod plerumque contingit, sit & ipsum plerumque contingens. Ergo repugnat manifeste in terminis, ut contradictorium eius, quod est probabile, sit & ipsum probabile. Ergo in nulla contradictione utraque pars potest esse probabilis".

¹²⁵Dialectical syllogisms (i.e., syllogisms with probable premises) were known since antiquity. Yet a deeper analytical interest in probabilistic conclusions within scholastic logic, buttressed by the concepts of 'probable consequence' (*consequentia probabilis*) and moral modalities, apparently emerged only after 1560 (see Hanke forthcoming). Although research on these developments is just beginning, it seems that scholastic probabilistic logic was one of the innovations of the Baroque era.

Scotus are both credible and approvable, but they cannot both be probable on grounds of the frequency view. It is wrong to think (like Haunold, who, however, was not Esparza's target) that a bridge to the frequency view can be built via considerations of the frequency with which great thinkers or experts speak the truth. The frequentist definition of probability refers to what happens in most cases, it does not refer to persons who are most often right. Although Aquinas and Scotus may have been such persons, their conflicting sentences cannot in most cases all be true. Moreover, Aquinas and Scotus often wrote about issues that did not allow for repeated, and thus frequent, realization. The appropriate conclusion is that the frequentist notion of probability does not suit the theological uses of probability. It was therefore best to distinguish different notions of probability, such as the Aristotelian frequentist and the theological one.

Esparza's analysis forebodes subsequent developments. Modern probability, which contains a strong frequentist strand, indeed parted ways with theological uses of probability. The avant-garde of modern probability refused, and often still refuses, to extend the concept of probability to the 'probable opinions' of the scholastics, for which they reserve notions such as 'plausibility' or simply 'approval'. Esparza might have applauded the underlying conceptual hygiene. However, reasons for assuming the truth of a proposition directly or indirectly formed the basis of theological probability judgments, and reasons for truth are today still considered a suitable basis for probability judgments, giving rise to logical or evidential probability. The conceptual dispossession of the scholastic tradition with respect to the notion of probability is therefore problematic. Moreover, Esparza's distinction of an Aristotelian probability for universals and a theological probability for particulars does not stand the test of scrutiny. Many of the probable opinions dealt with in the confessional were universal, for instance, moral laws, general precepts, or rules of conduct. Nevertheless, Esparza's treatment of Aristotle is noteworthy. He clearly asserts that the probability which had long been in use by theologians was *not* an Aristotelian one. This is first evinced with respect to Aristotelian proto-frequentist probability, followed by an argument that the probability of the theologians was also not Aristotle's endoxical probability (see Chapter 4). In sum, Esparza not only recognized that the probability discourse of theology had divorced from Aristotle, he also believed that they never really had been married – it had only seemed so to superficial observers.

As shown, several of Pallavicino's colleagues understood that his frequentist views were a new departure in the scholastic discourse on probability. Pallavicino was apparently the first to emphasize the conflict between Aristotelian proto-frequentism and both-sided probability, which had so far been a cornerstone of scholastic approaches to the choice of opinions. Anti-probabilists were able to exploit this opportunity, and the Jesuit Miguel de Elizalde (1617–1678) did so with particular resolve. Pallavicino's frequentist turn, which had been singular in the scholastic tradition as Haunold remarked in 1670, found adherents thereafter. After refuting several spurious notions of probability in his *De recta doctrina morum* (1670), Elizalde addressed the claim that what happens in most cases is probable.¹²⁶ He expressed surprise that the time-honored Aristotelian proto-frequentist formula had not been used as a starting point for deeper analyses earlier, despite all the recent rumble concerning the notion of probability. Pallavicino is deemed an agent of change in this respect, who outlined the resulting crucial problem: proto-frequentism and both-sided probability were apparently incompatible.¹²⁷

To proceed further, Elizalde elaborated Aristotle's proto-frequentist notion of probability more precisely, distinguishing an element about what happens in most cases from an element that refers to the universality of probable premises (a point which Esparza had underlined).¹²⁸ He then set out to tackle these elements one by one. Elizalde inveighed against splitting the scholastic discourse of probability by distinguishing between propositions that were believable (*credibile, opinabile*) and others that were probable (as Esparza had suggested). Probable propositions, in the sense of being true in by far most cases, were believable, and believable sentences must also be probable.¹²⁹ Otherwise, we would be entitled to believe propositions that were less often true than their negation. Elizalde had previously already mentioned that rhetoricians and sophists might want us to believe such propositions, and that they might even succeed, though they did thus not attain justified

¹²⁶Elizalde (1684), pars 1, lib. 2, q. 16, §1.

¹²⁷Elizalde (1670: 295), pars 1, lib. 2, q. 16, §1: "Pallavicinum ... definit probabile ex Aristotele; 'quod plerumque contingit'. Ex quo, quae videtur evidens consecutio, determinat, numquam duo simul contradictoria esse probabilia, scilicet probabilitate rei, & positiva, & secundum esse, quam modo inquirimus".

¹²⁸Elizalde (1670), pars 1, lib. 2, q. 16, §2.

¹²⁹Elizalde (1670: 297), pars 1, lib. 2, q. 16, §2: "Itaque omne probabile est opinabile; & omne absolute & simpliciter opinabile est probabile. ... Valet autem: 'Non est opinabile: ergo non est probabile. At quae fere semper non ita contingunt, non sunt opinabilia, ut est offensum: ergo neque probabilia. Ergo ad probabilia requiritur fere semper ita contingere".

believability. A proposition worthy of belief had to be believable, all things reasonably considered. Hence, the proto-frequentist understanding of probability was actually suitable for theological applications concerning judicious assent and the choice of opinions. Elizalde was aware that this assumption could put an end to the hotly debated issue of choice between a more probable and a less probable opinion. What was traditionally called a more probable opinion turned out, in fact, to simply be a probable opinion – and a seemingly less probable opinion was thus not probable at all.¹³⁰

Elizalde next wrote several paragraphs buttressing his position with further arguments and the authority of Aquinas before coming to the second element of Aristotelian proto-frequentism, as he saw it: the universality-particularity dimension. Aristotle had not only emphasized the contingency of probable things (*probabilia*), which occurred for the most part, but also added that they bore “the same relation to that in respect of which it is probable as the universal bears to the particular”.¹³¹ Elizalde related this requirement to the universality of premises in syllogisms, but he saw that premises need not be more universal than conclusions. This, however, differed in matters of probability. There, he claimed, a probable thing is always less universal than the principle (or cause, or reason) from which its probability derives. Otherwise, the principle could not engender the conclusion (or event, or outcome) for the most part only.¹³² It follows that the principles for the probability of something are fully universal (e.g., laws, reasons), but through the intervention of other causes, the outcome is only true for the most part, and hence less universal than the principle. With this argument, Elizalde showed that the Aristotelian notion of ‘for the most part’ probability could in its entirety be adapted to theological purposes. It therefore was also possible for Elizalde to anchor his understanding of extrinsic probability on his proto-frequentist notion of probability. An evaluator had opinion-guiding (i.e. epistemic) authority in the domains in which he was able to find the truth almost always (*fere semper*) with his considered judgments.

¹³⁰Elizalde (1670: 298), pars 1, lib. 2, q. 16, §2: “Dicam porro infra, quam toto coelo distet hoc probabile ab eo, quod communiter appellatur magis probabile: ut enim majus milium non est magnum; ita nec magis probabile; ita vocatum est per hoc solum probabile”.

¹³¹Aristotle (1984), 1357a38.

¹³²Elizalde (1670: 306), pars 1, lib. 2, q. 16, §5: “Ad hoc respondetur; necesse esse in probabilibus, quod principium sit universalis, & se habeat ad rem, vel conclusionem probabilem tanquam universale ad particulare ... Ratio autem, quare principium probabile debeat esse universalis, ea est, quod si haberet ad unam solum conclusionem: non posset fere semper ad eam ita se habere; & aliquando & raro non ita se habere”.

Note that such re-interpretations are interesting with respect to the development of Aristotelianism in the seventeenth century. Pallavicino and Elizalde tried to render Aristotle pivotal again for a scholastic probability discourse that had increasingly departed from an orthodox understanding of his teachings. At first glance, this looks like a decidedly conservative endeavor. Yet both authors were innovators by employing Aristotelian tenets in ways in which they had never before been used. Moreover, the Aristotelian turn they instigated paved the way for a break with scholastic both-sided probability, and by moving issues of frequency to the foreground of debates on probability, it also fostered the rise of frequentism in the fledgling modern interpretations of probability in the seventeenth century. The Aristotelianism of Pallavicino and Elizalde is therefore at the same time conservative and modernizing. (It is a common misconception that these two properties are incompatible).

The new understanding of proto-frequentism evinced by Elizalde and Pallavicino, who proceeded to frequentism, remained a minority position in the scholastic discourse on probability. The gravitational pull of the established conceptual framework that allowed for both-sided probability and competition between probable opinions was too strong. The eminent probabilist, Anthony Terill (again a Jesuit), rejected the new frequency approach in his path-breaking *Fundamentum theologiae moralis* (1669).¹³³ Elizalde's densely argued work was published only one year later. Terill took the latter's attack on probabilism seriously enough to answer with a book-length reply, the *Regula morum* (1678). One weighty point of Terill's reply concerned the frequentist interpretation of probability in theology (and philosophy), to which he objected that many judgements of probability in these domains referred to non-repeatable events or issues for which the assumption of being true in most cases did not make sense.¹³⁴ Pallavicino and Elizalde, nevertheless, did not completely lack followers. The Mimin friar Francisco Palanco (1657–1720) picked up the gauntlet of frequentism and, among other things, answered Terill. Palanco's approach, like Elizalde's, remained proto-frequentist. He defined 'probable' as 'what almost always or most of the time thus occurs'. This definition was seconded with a similar one from Aquinas: 'Which in most instances fits truth and in few falls short of

¹³³See Terill (1669), q. 2, ass. 4 for a discussion of the new frequentist approach.

¹³⁴See Terill (1678), q. 37, ass. 3.

it'.¹³⁵ A probable motive is therefore, 'what mostly implies truth and rarely fails' (*quod plerumque veritatem infert et raro fallit*). Palanco answered the objection that probability is often ascribed even in singular cases, with the argument that at least a general tendency must be present. This tendency needs to incline towards truth most of the time, even if it is only realized in a single case. For instance, Maria (a specific Maria) mourns Peter (her son) only once, but the probability of this event is determined by a general tendency of mothers to mourn the death of a son. Another objection of probabilists maintains that probability is often ascribed without knowing which side is more often true. For Palanco, however, this was only a practical problem that did not impair a definition of probability's meaning. He also rejected the argument that probable reasoning would then be useless for moral theology. We can always hark back to the judgments of the good old masters (Aquinas et al.), whose frequent truth we may assume. The resulting failure of both-sided probability should not deter us, because both-sided probability is a chimera, anyway. One answer of Palanco is particularly interesting given the further course of frequentism as an interpretation of probability. With respect to disputed theoretical claims in the natural sciences, such as 'The heavens are fluid' (*coelum esse fluidum*), we often do not know on the basis of theoretical arguments which side is more right. Palanco demanded that in this case, probability is to be based on observation.¹³⁶

As in other areas of the probabilism debate, the exchange of arguments did not end at this point.¹³⁷ What has been presented so far should, however, suffice to demonstrate that proto-frequentism thrived among anti-probabilists, roughly around the time when Jacob Bernoulli wrote his *Ars conjectandi*. At given points, scholastic proto-frequentism touched upon issues that became relevant for the emerging frequentism of modern probability theory. Moreover, Pietro Sforza Pallavicino had already taken steps beyond a narrower Aristotelian proto-frequentism in the direction of a full frequency view, and Pallavicino was far better connected to friends of the new science than most of his colleagues among Catholic theologians.

¹³⁵Palanco (1694), q. 22, n. 3: "Dico secundo, quod probabile sic recte definitur: 'Quod fere semper, aut plerumque ita contingit'". And following Aquinas, II-II, q. 70, a. 2: "Quae ut in pluribus veritatem attingat, etsi in paucioribus a veritate deficiat".

¹³⁶For the objections and answers, see Palanco (1694), q. 22, n. 9, 11, 12, 13, 15.

¹³⁷See, for instance, Casnedi (1711), tract. 2, disp. 4, sec. 2, §3.

4. *Scholastics on aleatory contracts and expected value*

One of the most important developments on the path towards modern probability was, without doubt, the evolution of legal and theological views on aleatory contracts. Aleatory contracts are agreements on risk-taking and betting between several agents.¹³⁸ However, some risk-prone economic activities, such as insurance, were often dealt with in their own legal categories, so that the treatment of aleatory contracts could simply correspond to legal and moral regulations for games of luck. Moreover, it is important to note that the attitudes of regulators changed significantly between the Middle Ages and the seventeenth century. Gambling for money or other lucrative goods had been morally condemned and prohibited by medieval theologians. Early modern theologians increasingly adopted a more lenient stance towards games of luck. By the seventeenth century, gambling had become morally acceptable, at least in the eyes of broadminded theologians, but—like any other economic activity—only if it was fair. This new attitude towards gambling probably owed much to general trends in scholastic economic thought. Economic risk-taking had explicitly been condoned in the late Middle Ages as an activity worthy of profitable reward. The moral legitimacy of insurance contracts, and in general the sale of risk as an intangible but nevertheless monetarizable good, had been controversial in the fourteenth century when the practice of maritime insurance began to spread.¹³⁹ In the fifteenth century, the moral legitimacy of insurance became mainstream (in the Christian West, in contrast to Islam). The same is true for complex and risky economic ‘futures’, such as already buying a right to autumn’s harvest in spring. Finally, in the sixteenth century, the risk of loss concerning a loan (*periculum sortis*) became an acceptable reason for introducing interest payments, although it had previously been considered usurious. Parallel to this growing appreciation of economic risk-taking, which formed one of the main pillars of the rise of capitalism in Europe, the idea of self-ownership and subjective rights spread in scholastic jurisprudence and moral theology. There was no injury to a willing contractor if he suffered losses in a fair deal. With respect to gambling, a further point concerned the revaluation of pleasure in much early modern and, in particular, Baroque theology. Pleasure was good for humans, and its potential as an incentive to sin could be tolerated if

¹³⁸Ceccarelli (2003: pp. 395); Decock (2009: 73).

¹³⁹Ceccarelli (2001, 2003); Spufford (2002), Chap. 1.

pleasurable activities remained within licit boundaries. This attitude altered the theological perspective on sex (in marriage, of course), and also on enjoyable games. Small stakes could increase the enjoyment of a game without serious negative repercussions, large stakes justified a sterner attitude and closer regulation.

This, roughly, was the background for an increasingly permissive treatment of aleatory contracts in scholastic jurisprudence and moral theology. It naturally led to the question what a fair gamble is. We have already encountered this question with respect to the ‘problem of points’, that is, the fair distribution of gains in an interrupted game. But the question, of course, had a more general scope and by pursuing it, scholastic analyses of aleatory contracts slowly approached the idea of expected value. (The expected value of a gamble is most simply expressed by the value of its outcome v multiplied by the outcome’s probability p – assuming that the value of not winning is zero.)

We will not investigate this process here in detail, but only discuss some important steps. Let us begin with the entry ‘game’ (*ludus*) in Silvester Mazzolini’s influential handbook for confessors, the *Summa summarum*. The text is from 1515, and summarizes the medieval view on games, including games of luck, at the outset of a new epoch – early modernity. Mazzolini characterized games as either wordplays or activities for the sake of joy and the recreation of the soul.¹⁴⁰ After duly stating the opinion of Aquinas on games, he discussed games of luck, literally speaking, games of dice (*de alea*) which in fact comprised all games in which the outcome depended primarily on luck. Hence, card games and board games were also called ‘aleatory’ if their outcome involved luck. Mazzolini outlined that games of luck were not *per se* prohibited. After all, they could be played for the sake of recreation, but there were many circumstances under which a prohibition was called for, not only with respect to games of luck but also to games in general. Knightly tournaments, for instance, could lead to loss of lives and could therefore be prohibited. More specific for games of luck was another of Mazzolini’s reasons for prohibiting games: greed and avarice. If a game were not played except for the gain which at least one player expected, it was not merely recreational. In this case, it was illicit because it was motivated by greed. The motive of gain, however, did not necessarily render games illicit. If the players would have played for recreation anyway, it was acceptable if they also hoped

¹⁴⁰Mazzolini (1569), entry ‘De ludo’, n. 1.

for gain. For the rest, there is no mention of equitable chances of gain and loss and *a fortiori* not of a mathematical notion of expected value in Mazzolini's treatment of games of luck.

At the end of the sixteenth century, the prevailing attitude towards games of luck had changed significantly. The chapter on games in Juan Azor's *Institutiones morales* (1600) bears witness to these changes.¹⁴¹ Azor made a start by pointing out that games could support virtue because they could invigorate the soul or exercise the body. Second, they could also be played for greed and gain. Third, a kind of (implicit) contract existed between players who played for money and risked losing it, that is, Azor treated games of luck from the perspective of concluding an aleatory contract, a perspective that had been lacking in Mazzolini. Only then did Azor raise the question: was it sinful to play for the sake of gain? Some authors, such as Gabriel, that is, Gabriel Biel (c. 1420–1495) an eminent German theologian, and Panormitanus, that is, Nicolas de Tedeschis (1386 –1445), a famous lawyer, thought so. Yet others held the opposite view, most notably Domingo de Soto, Juan de Medina, Thomas de Vio (Cajetan), and Martín de Azpilcueta 'Navarrus'. Azor considered the opinion of this second group of authors as being more probable. Note that the second group consists of renowned 'recent' authors from the sixteenth century, whereas the authors mentioned first lived in the fifteenth century. Hence, the prevailing attitude towards playing for gain, and towards the profit motive as such, had changed. Azor explicitly maintained that the intention to make profit (*animus lucrificandi*) was not in itself bad, if not depraved for some external reason. Profit was in itself a morally indifferent thing.¹⁴² A similar revaluation had occurred with respect to the moral duty to retribute gains from prohibited games. The supporters of such a duty whom Azor listed were all medieval scholastics, among them great authorities, such as Bonaventura and Aquinas. Against them stood the cream of sixteenth century scholasticism: Adrian of Utrecht (who became Pope Hadrian VI), Domingo de Soto, Juan de Medina, John Major, Diego de Covarrubias, Navarrus, Cajetan, and Alfonso de Castro. On the whole, gambling for gain, if conducted fairly, was no longer generally perceived as sinful by the life and times of Azor. As regards fairness, Azor did not venture beyond traditional 'no cheating' or 'no exploitation' accounts of what fairness meant with respect to games of luck. It was sinful to use loaded dice or marked

¹⁴¹Azor (1602), pars 3, lib. 5, cap. 24.

¹⁴²Azor (1602: 436), pars 3, lib. 5, cap. 24.

cards in gambling, or to exploit other people's need for money. There is no mention of expected value in Azor, or even of preliminary considerations in this direction.

In 1646, Cardinal Juan de Lugo published his treatise *De iustitia et iure*. It was a landmark achievement in this genre and contained a disputation on aleatory contracts.¹⁴³ At the outset of the disputation, Lugo professed that he would deal only with the legal aspects of games of luck. Insofar, a game of luck was again merely considered a type of contract between the players – an aleatory contract. Lugo immediately raised the question whether it was a grave sin to principally play for gain.¹⁴⁴ He answered in the negative, using a somewhat strange comparison. It was not against the ninth commandment to long for one's neighbor's wife, if done in an appropriate way, for instance, by longing to marry her after her husband's death. In the same way, it was not illicit to long for one's neighbor's possessions if they could be gained in a fair gamble. Lugo added that a desire for profit (*lucrum*) was not in itself wrong, because it was not always necessarily a sign of avarice. One could strive for profit in honest ways, for instance, in order to care for the sustenance of one's family or to appropriately display one's status.¹⁴⁵ So far, Lugo had not ventured beyond the new post-medieval mainstream, but represented it.

However, Lugo also had something to say about three main conditions that rendered an aleatory contract permissible. These conditions were: nobody should be forced to play, the conditions for all players should be equal, and there should be no fraud.¹⁴⁶ As to the requirement of equal conditions or equity (*aequitas*), Lugo demanded that risk of loss and hope of gain should be equitably related. It was, for instance, inequitable to demand a significant premium for an insurance contract if there was no or only a minimal risk (*periculum*) of loss. Similarly, it was unjust in games of luck if

¹⁴³Lugo (1646), tom. 2, disp. 31: "De ludo, sponsione et assecuratione".

¹⁴⁴Lugo (1646: 427), tom. 2, disp. 31: "Dubitatur primo, an sit peccatum grave ludere principaliter propter lucrum".

¹⁴⁵Lugo (1646: 427) tom. 2, disp. 31: "Hoc tamen in univ[er]sum non est verum; quia desiderium lucri, nisi nimirum sit, non semper continet avaritiam, cum possit lucrum honeste appeti, & procurari ad sustentationem familiae vel status". Ostentatious spending as expected considering a person's status in life was not considered wrong in medieval or early modern Catholic moral thought. A decent person was entitled – and even expected – to live according to their status, be it an artisan, banker, or cardinal. Hence, much of the conspicuous spending of Renaissance or Baroque princes or prelates was not considered luxury – luxury being consumption that exceeded the right measure of one's status.

¹⁴⁶For a particularly succinct statement of these conditions see Coton (1646: 105), entry 'Ludus, quid requirat ex parte contractus'.

certain loss was traded for no or only a minimal hope of gain.¹⁴⁷ Apparently, by the time Lugo published his work, considerations of equity and of an equitable relationship between losses and possible gains had become central for the validity of aleatory contracts, and hence for the moral assessment of games of luck. Since it was licit to strive for profit and to do so even in games of luck, the appropriate moral restrictions were now the mentioned three conditions of fair play. However, Lugo did not substantiate the equity condition by offering a mathematical relationship between a possible loss and hope of gain.

An interesting remark in this respect came from Antonio Pérez (1599–1649), Lugo’s successor as professor of theology at the Jesuit Collegio Romano. Pérez wrote that the minor probability of a greater future evil may outweigh the greater probability of a smaller future evil.¹⁴⁸ This shows that the mutually compensatory relationship in which the probability and value of an outcome stand in expected value theory was understood in the Collegio Romano at the latest in the 1640s. Yet still, the relationship between outcome value and probability was not mathematically expressed as a multiplicative product.

This final step can be found in the Jesuit Pedro de Oñate’s (1567–1646) monumental treatise *On Contracts* (*De contractibus*), in which this important lawyer discussed aleatory contracts, among other issues.¹⁴⁹ In this context, he stated the equity requirement for loss and gain in games of luck much more clearly than Lugo. One side’s hope of gain should equal the other side’s loss thereof.¹⁵⁰ Even more precisely and using mathematical terms, Oñate claimed that this equality should not be absolute and arithmetical, but proportional and geometrical.¹⁵¹

¹⁴⁷Lugo (1646), tom. 2, disp. 31, sec. 3, §4, n. 46: “Unde sicut in assecuratione non acciperetur iuste magnum pretium ab assecurante, quando periculo rei assecratae nullum, vel levissimum esset, quia deesset aequaliter inter datum & acceptum; sic in ludo non servetur iustitia quando pro periculo certo perdendi datur spes nulla vel levissima lucrandi”.

¹⁴⁸Pérez (1668), tract. 1, disp. 4, cap. 2, n. 16: “probabilitas minor maioris mali futuri praeponderare potest probabilitati maiori minoris mali futuri”.

¹⁴⁹Oñate (1654), tom. 3, pars 2, tract. 36, disp. 131.

¹⁵⁰Oñate (1654), tom. 3, pars 2, tract. 36, disp. 131, sec. 1, n. 15 and 16.

¹⁵¹Oñate (1654), tom. 3, pars 2, tract. 36, disp. 131, sec. 1, n. 16: “Sequitur nono, hanc aequalitatem non debere esse absolutam, & arithmeticam, sed geometricam, id est non absolutam, sed proportionalem, proportione servata ad dubium, & ad praemium. Si enim duplo maius sit dubium pro una parte, duplo maius etiam debet esse praemium vincentis, & duplo maior poena victi: & ideo in assecuratione maius solet esse praemium assecurati, quam assecurantis, quia longe minus est periculum quod merces interibunt”.

“It follows ninth that this equality should not be absolute and arithmetic but geometric, that is, not absolute, but proportional, with a proportionality connecting doubt and prize. For if doubt for one side doubles, the prize for the winner should also double, and double should be the loss of the loser. Likewise in insurance the prize is usually greater for the insured than for the insurer, because it far less risky that the goods perish than not.”

The requirement of a geometrical proportion specifies that the relationship should be multiplicative and not additive. But what should be multiplied? Oñate states that if doubt doubles for one side, the premium of the winner should also double, and so also the loss of the other. This is basically the rationale behind expected value in games of luck. As doubt doubles, that is, as the probability of winning is halved, the premium should double to keep the expected value of a game constant. The expected value of winning is then $p \cdot v$, the product of the probability p of winning and the value v of the winner's premium. This insight was Huygens' main achievement (even more than Pascal and Fermat's) in his treatise of 1657. Here, we find it already formulated, albeit without follow-up calculations, in a scholastic treatise posthumously published in 1654, the very year of the exchange of letters between Pascal and Fermat, which conventionally marks the birth of modern probability. Since Oñate had died in 1646, the idea of expected value must have circulated for some time before it was taken up by Pascal, Fermat, and Huygens. The usual scholastic mode of operation implies that it must have been discussed with colleagues and presented in lectures well before 1646. Whatever else it was, the idea of expected value seems to have emerged as a spin-off of scholastic analyses of aleatory contracts. This is not to say that all scholastic authors who wrote about games of luck or aleatory contracts jumped to the idea of expected value after Oñate. Most respective discussions continued in the old mold, but the idea was clearly visible for all to see in quite a prominent treatise – right at the time when modern probability was conceived by Pascal, Fermat, and Huygens.

5. Other developments

There are many additional respects in which the seventeenth-century scholastic discourse of probability became a seedbed for conceptualizations which soon were to be found in modern treatments of probability. The distinction between objective and subjective probability, for instance, has already been addressed in Chapter 8. For reasons of space, I will broach these other issues only summarily.

Seventeenth-century scholastics used examples or models that subsequently became characteristic of statistical thinking. As Sven Knebel has shown in great detail, and as discussed above, Pietro Sforza Pallavicino referred to throws of dice to illustrate chance, possibility, and moral certainty. But Pallavicino was not alone in this respect. Anthony Terill used a lottery model in his analysis of logical conclusions from probable premises. Terill asked to what extent it should be expected for a lottery ticket which wins a gem, to be contained in a specific partition of a collectivity (*collectio*) of tickets.¹⁵² The partition in question is larger than the remainder of the collectivity, and it is therefore more probable that the winning ticket is in the partition. This kind of reasoning is repeated for a suitable partition of the first partition. Each time, it is more probable that the winning ticket is in the larger partition than in the remainder of the partitioned whole. After a few runs, it is, however, not more probable on the whole that the winning ticket is in the final partition than in the remainder of the initial entire collectivity. It presently does not matter which conclusions Terill drew from this insight (see Chapter 9), but only that he used a model based on the drawing or allocation of lottery tickets. Such models subsequently became typical for modern statistical reasoning. His and Pallavicino's examples show that these models were in broader use among scholastics in the middle of the seventeenth century than could be gleaned from the prominent case of Juan Caramuel alone, who had copied Huygens treatise on probability and therefore might have received his statistical models from the nascent modern tradition of probability.

Finally, there is a precursor to the notion of statistical correlation in scholastic thought and in the debate on probabilism in particular. Juan Caramuel observed that Aristotle's notion of a dialectical (or topical)

¹⁵²Terill (1669), q. 5. ass. 3, n. 7. For a discussion of Terill's approach, see Schuessler (2009a); Schuessler (2014a).

syllogism led to the problem that a correct syllogism with probable premises could produce an improbable conclusion.¹⁵³ The Aristotelian definition of a dialectical syllogism characterized it as a valid syllogism with probable premises. However, since it was commonly accepted that mutually contradictory propositions could be probable at the same time, improbable (or even arbitrary) conclusions could clearly be drawn from such premises. Hence, Caramuel added that the premises of a dialectical syllogism had to be ‘comprobable’ (*comprobabilis*) to block the deduction of improbable conclusions. Premises were comprobable according to Caramuel, if one and the same person could ‘admit’ (*admittere*) them.

Juan Cardenas (1613–1684), whose *Crisis theologica* (1670) contained an extended critique of Caramuel’s probabilism, also took issue with the latter’s treatment of comprobability, arguing that the outlined characterization did not suffice. As regards the standard scholastic account of probability, two suitable logically incompatible propositions could simultaneously be admitted as probable by one and the same theologian. Caramuel apparently wanted to say that the same person could assent to the propositions in question, which excludes that the propositions are logically incompatible. Yet this is again too unspecific to be of much use for the selection of premises that generate at least probable conclusions. Cardenas offered a more precise solution to this problem by defining comprobable propositions as compossible probable propositions.¹⁵⁴ Unfortunately, this is again insufficient for ascertaining that a conclusion based on probable premises is in itself probable, as Anthony Terill’s above quoted lottery example shows (which in modern terminology is an instance of the ‘lottery paradox’).¹⁵⁵ Yet Cardenas correctly understood that it must be possible for the premises of a dialectical syllogism to be conjointly probable in a sense not covered by endoxical probability. Two logically incompatible propositions can be *endoxa* without being compossible. Cardenas’ demand thus marks a first step towards the concept of correlation,

¹⁵³Caramuel (1657: 323), fund 45, n. 1125: “Dicebat Aristoteles, ‘dialecticus syllogismus est qui ex probabilibus est syllogizatus.’ Deleo illud ‘probabilibus’ et repono ‘comprobabilibus’: dantur enim syllogismi, quorum praemissae sunt probabiles & consequentia bona, & tamen improbable consequens. ... Quia tametsi illae seorsim probabiles sint, non tamen sunt comprobabiles; non enim unus & idem author utramque admittet”. See also Caramuel (1657: 392) fund 51, n. 1395, where he criticizes Aristotle’s definition of the topical syllogism and offers his improved definition: “Syllogismus topicus ille est, cuius forma est legitima & altera aut utraque praemissa comprobabilis”.

¹⁵⁴Cardenas (1670: 67), tract. 1, disp. 7, cap. 1, n. 7: “eas [propositiones] esse comprobabiles, quae ita probabiles sunt, ut sint inter se compossibiles”.

¹⁵⁵On the lottery paradox, see Sorensen (2017).

because it realizes that the premises of a dialectical syllogism must have a joint degree of truth to turn it into a probability-preserving scheme of deduction. In fact, with sufficient positive correlation between the premises, dialectical syllogisms become probability-preserving.¹⁵⁶ However, it takes a much more developed mathematical theory of probability than that available to Cardenas to introduce the notion of correlation.

6. Why did a mathematical theory of probability emerge in the middle of the seventeenth century?

The question why a mathematical calculus of probability did not emerge before the middle of the seventeenth century has intrigued historians of mathematics or philosophy ever since Hacking's influential *The Emergence of Probability* (1975).¹⁵⁷ However, the widespread neglect of the scholastic discourse on probability limited the chances of finding a satisfactory answer. I hope to have shown that scholastic developments need to be taken into account for a satisfactory understanding of the early modern conceptual background of mathematical probability. The decades when modern probability was discovered were also the decades in which the debate on scholastic probabilism entered its hottest phase. This conjunction is not coincidental. The debate on probabilism engendered the deepest and most detailed investigations into the concept of probability to be found in the scholastic tradition. These investigations produced new frequentist views on

¹⁵⁶In order to approach the problem of (scholastic) probability preservation with modern quantitative methods, it must be remembered that 'probable' meant 'reasonably assertable' to late seventeenth-century moral theologians. Reasonable assertability can be assumed for propositions whose quantitative probability exceeds a certain threshold. For the sake of argument, let the threshold in question be $p^* = 0.95$. Two statistically independent premises with probabilities above p^* need not entail conclusions, whose probability is above p^* (because the product of the premises' probabilities may fall below p^* , e.g., $0.95 \cdot 0.95 = 0.9025$). This is our problem. However, if the propositions are not statistically independent, there is always a possible correlation c between them so that conclusions drawn from them are probable in the sense of a probability above p^* .

¹⁵⁷See also Franklin (2001: 330); Schneider (1980). In his book, Franklin attends lavishly to scholastic approaches to uncertainty and probability. However, when asking why a calculus of probability did not emerge before 1654, he also regards Aristotelianism – and scholastic thought – as an impediment to progress. I have argued here that Aristotelianism played a less onedimensional role. Some developments and interpretations within early modern Aristotelianism stifled progress towards numerical probability, whereas other developments and interpretations fostered it.

probability, employed statistical models in theological argumentation, and spurred other innovations that set the pace for modern probability. Of course, processes that lead to an intellectual revolution, such as the emergence of modern probability, are always multi-causal. But it is tempting to respond to Hacking that modern probability emerged in the middle of the seventeenth century because this was the time when scholastic analyses of probability reached their apex.

Moreover, the ground for both developments had been prepared in the sixteenth century, and not only by Cardano's first forays into the calculation of chances. It should also be taken into account, as I have argued elsewhere, that the term 'equal probability' first came into wider use in the sixteenth century (and among scholastic and humanist authors alike).¹⁵⁸ A strong ranking of probabilities had been predominant in the Middle Ages and up to the end of the fifteenth century, that is, probabilities could be greater or smaller than others, but two probabilities were almost never explicitly declared to be equal. The spread of explicit attributions of equal probability in the sixteenth century may have paved the way for equations and thus for the mathematization of probability. Finally, towards the end of the sixteenth century, probabilism added a further step towards a more 'modern' approach to decision making under uncertainty. Up to that point, the rational choice of courses of action in scholastic accounts of legitimate action was limited to the choice between more probable and safer options. Probabilism created the possibility of rationally and legitimately choosing actions that were less probable and less safe but had better consequences than alternatives (as discussed in Chapter 2). Scholastic authors used the term 'utility' (*utilitas*) to refer to the production of positive consequences. In some sense, greater utility could therefore make good for less probability in scholastic probabilist considerations. The same was conversely true for actions of avoidance, for which a greater evil allowed a lesser probability to outweigh the greater probability of a smaller evil, as Antonio Pérez (1599–1649), a Jesuit professor at the Collegio Romano, argued even before the modern calculus of probability had been conceived.¹⁵⁹

¹⁵⁸For a detailed analysis of this issue, see Schuessler (2016).

¹⁵⁹Pérez (1668), tract. 1, disp. 4, cap. 2, n. 16: "probabilitas minor maioris mali futuri praeponderare potest probabilitati maiori minoris mali futuri ... Sicut etiam spes magni lucri potest saepe praeponderare parvo lucri evidenti". And under n. 18: "Si autem pendet a solo iure naturali, inspiciendum est, utrum excessus mali minus probabiliter imminentis ad malum probabilius imminens sit titulus, ut iuxta rectam existimationem potius timendum sit malum minus probabiliter imminens, quam contrarium probabilius imminens".

These steps on the path towards modern probability have hitherto not been recognized in the literature on its prehistory. This is not to say, however, that more familiar developments which were conducive to modern probability should not also be recorded. It is plausible to assume that mathematical probability could gain ground because at the same time, a rising culture of mathematics and science put a premium on quantification. It may even be assumed that the breaking away of early modern science from theology, as incomplete as it may have been before the middle of the eighteenth century, helped modern probability evolve into its own. This would not contradict an influence of the parallel discourse on probability in Catholic moral theology on the emergence of modern probability, but suggest that inside moral theology, modern probability would probably have been stifled. The small role that a calculus of probability was to play in eighteenth-century theology corroborates this hypothesis.¹⁶⁰ It should have transpired, however, that the reluctance of Catholic theologians to adopt the modern paradigm of probability for their work need not be attributed to intellectual backwardness. The modern calculus of probability had difficulties in representing both-sided probability, which was fundamental for the scholastic pluralism of opinions.¹⁶¹ Many theologians preferred to retain a pluralistic choice between opinions over the options that a mathematization of probability would have offered them. It took a new scientific culture that was

¹⁶⁰References to modern probability are difficult to find in eighteenth-century Catholic moral theology. One Catholic theologian who discussed probable reasoning under the influence of Jacob Bernoulli somewhat at length, was Eusebius Amort (1692–1775). The notable equiprobabilist Amort was a protagonist of the Catholic Enlightenment and accordingly open to influences from Enlightenment thinkers (see Precht-Nußbaum 2007). His *Ars Critica* (1750) is an attempt to formulate an art of probable thinking analogous to Bernoulli's *Ars Conjectandi*. However, Amort notes (p. 7) that a mathematical approach would have restricted him to the analysis of games of luck, despite his best efforts to find applications in domains of relevance for him. In the end, therefore, Amort's *Ars Critica* offers another example of a scholastic author *not* endorsing modern probability.

¹⁶¹For the convenience of the reader I repeat Chap. 6, Fn 53: Standard probability theory assumes that the probability q of truth for a proposition p and its negation $\text{non-}p$ add up to one (i.e., the probability of $\text{non-}p$ is $1-q$). If we follow the standard epistemological assumption that only propositions with probability $> .5$ can be assented as true, disagreement in which both p and $\text{non-}p$ can be assented by (different) reasonable persons cannot be represented in an unitary account because the reasons for p and for $\text{non-}p$ would ground justified probability ascriptions $> .5$ (and thus do not add to one). Today, this case can be represented by non-standard theories of probability or formal models of plausibility (see, e.g., Friedman and Halpern 1995; Halpern 2003; Huber and Schmidt-Petri 2009; Shafer 1976). To the best of my knowledge, mathematical models of representing reasonable disagreement were not available before the twentieth century. Shafer (1978) discusses how Jacob Bernoulli struggled with the idea of non-additive probabilities.

unencumbered by the old pluralistic uses of probability to—gradually but steadily—foster mathematical probability.

Finally, the parallel rise of modern capitalism also played a role in the emergence of modern probability. This classical hypothesis of historians of probability should, however, be handled with care. We should clearly distinguish between the evolution of business practices and instruments of economic policy, and concomitant developments in the normative framework of premodern business ethics and economic thought. With respect to the former, population statistics and mortality tables became politically important in the late seventeenth century. Yet they nourished an already existing calculus of chances rather than to contribute to its discovery. Therefore, the gradually growing appreciation of risk-taking in Christian economic thought since the Middle Ages seems to be more pertinent for the present inquiry. From the fourteenth to the sixteenth century, the normative acceptance of insurance contracts, risky ‘futures’ contracts and finally, the title of ‘risk to capital’ as justification for interest taking, documents a growing appreciation of risk in step with the unfolding of modern capitalism.

Repeated references to the legitimacy of the profit motive (see Section 4 above) show that these developments spilled over into the treatment of games of luck. We have seen that scholastic treatments of aleatory contracts, which include games of luck, changed significantly from the early sixteenth to the middle of the seventeenth century. Gambling for gain was no longer condemned out of hand and the focus of moral analyses shifted to a requirement of fairness for games. The relationship between expectable gains and losses became an important element of considerations of fairness and equity. Against this background, several authors, such as Juan de Lugo or Antonio Pérez, struggled with the relationship between the probability and the amount of gain or loss. Pedro de Oñate developed a mathematical formulation for this relationship, assuming that equity was served by a geometrical relationship between additional gains and decreasing probability. This is a way to express the (abbreviated) expected value formula: $E(v) = p \cdot v$, which is central for modern treatments of games of chance. Oñate died in 1646 and the treatise with his formulation of expected value was printed in 1654. Hence, an identification of equity in aleatory contexts with equal expected value already existed before Pascal, Fermat, and Huygens turned it into a cornerstone of nascent modern probability calculus. In this respect, too, scholastics paved the way for modern probability.

References

Sources

- Abelly, Louis. *Medulla theologica*. 2 Vols (Lyon: F. Comba, 1677).
- Accolti, Benedetto (Accoltus). *De praestantia virorum sui aevi dialogus* (Parma: Haeredes Marii Vignae, 1692).
- Agricola, Rudolf. *De inventione dialectica* (Tübingen: M. Niemeyer, 1992).
- Ailly, Pierre de. *Quaestiones super primum, tertium, et quartum sententiarum* (Paris: Jean Petit, 1513).
- Alberti, Alberto di. *Paradoxa moralia de ornatu mulierum* (Milan: Mognago, 1650).
- Albertus Magnus. "Logica secunda pars." In *Opera omnia*. Tom. 2 (Paris: Louis Vives, 1890).
- Almain, Jacques. *Dictata super sententias Roberti Holcot* (Paris: Chevallon, 1526).
- Ames, William. *Conscience with the Power and Cases Thereof* (London: Christiaens, Griffin & Dawson, 1639).
- Amico, Francesco. *Cursus Theologicus* (Vienna: Rath, 1630).
- Amort, Eusebius. *Ars critica* (sine loco: 1750).
- Amort, Eusebius. *Theologia eclectica*. Tom. 3 (Würzburg: Veith, 1752).
- Amort, Eusebius. *Theologia moralis inter rigorem et laxitatem media* (Augsburg: Wolff, 1758).
- Antoine, Paul Gabriel. *Theologia moralis universa*. Tom. 1 (Ingolstadt: De la Haye. 1734).
- Antonino of Florence. *Summa sacra theologiae, iuris pontificii et caesarei* (Venice: Apud Iuntas, 1582).
- Aquinas, Thomas. *Sancti Thomae Aquinatis opera omnia*. Tom. 6 (Rome: Typographia de Propaganda Fide, 1891).
- Aquinas, Thomas. *Summa theologica* (Allen, Tx: Christian Classics, 1948).
- Aquinas, Thomas. *Quaestiones quodlibetales*. Edited by R. Spiazzi (Rome: Marietti, 1956).
- Aquinas, Thomas. *Commentary on Aristotle's Posterior Analytics* (Notre Dame, Ind: Dumb Ox Books, 2007).
- Aristotle. *Complete Works*. Edited by J. Barnes, 2 Vols (Princeton: Princeton University Press, 1984).

- Arnauld, Antoine and Hallier, Francois. *Théologie morale des Jésuites* (Cologne: Schouten, 1699).
- Arnauld, Antoine and Nicole, Pierre. *Logic or the Art of Thinking* (Cambridge: Cambridge University Press, 1996).
- Arriaga, Rodrigo. *Cursus Philosophicus* (Antwerp: Moretus, 1632).
- Arriaga, Rodrigo. *Disputationes theologicae in Primam Secundae D. Thomae*. Tom. 3 (Antwerp: Moretus, 1644).
- Arsdekin, Richard. *Theologia tripartita*. Tom. 2 (Antwerp: Michaelae Cnobbaert, 1686).
- Arsdekin, Richard. *Theologia tripartita* (Cologne: Weidenfeldt & Berges, 1687).
- Azor, Juan. *Institutiones morales*. 2 Vols (Cologne: Ant. Hierat. 1602).
- Azpilcueta, Martín de (Navarrus). *Manual de confesores y penitentes* (Toledo: Juan Ferrer, 1554).
- Azpilcueta, Martín de. *Enchiridon sive Manuale Confessariorum et Poenitentium* (Würzburg: Georg Fleischmann, 1593).
- Azpilcueta, Martín de. "Commentarius resolutorius de usuris." In *Opera Omnia*. Tom. 1 (Cologne: Johannes Gymnich, 1616).
- Babenstuber, Ludwig. *Regula Morum* (Salzburg: Johann Baptist Mayr, 1697).
- Baldelli, Niccolò. *Theologia moralis* (Lyon: Boissat, Gabriel & Soc., 1637).
- Balduin, Friedrich. *Tractatus luculentus [...] de materia rarissima antehac enucleata, casibus nimirum conscientiae* (Frankfurt: Caspar Wachtler, 1654).
- Baldus de Ubaldis. *Super quarto et quinto codicis* (Lyon: Melchior Trechsel, 1539).
- Ballerini, Antonio and Palmieri, Dominicus: *Opus theologicum morale in Busenbaum Medullam* (Prato: Giachetti, 1899).
- Ballerini, Pietro. *Riposta alla lettera del Padre Paolo Segneri su la materia del probabile* (Verona: Dionigi Ramanzini, 1732).
- Bañez, Domingo. *Commentaria Scholastica in Secundam Secundae* (Douai: Petrus Borremans, 1615).
- Banholzer, Johann. *Ethica christiana seu de recta regula morum controversia theologica* (Ingolstadt: Grass, 1694).
- Baptista (G. B. Trovamala). *Summa Roselle de casibus conscientie* (Strassbourg: Knoblauch, 1516).
- Baptista, Juan Ildefonso. *Commentaria et disputationes in Primam Secundae* (Lyon: Prost, Borde & Arnaud, 1648).
- Bardi, Francesco. *Disceptationes morales de conscientia* (Palermo: Cirillus,

1650).

- Barnabas à Rosalibus (Bernabe de Roses). *Relectio fratris Barnabae à Rosalibus ordinis divi Hieronymi theologorum minimi de tribus poenitentiae partibus atque opinionum varietate quae videlicet tenenda sit* (Valentia: J. Mey, 1543).
- Baron, Vincent. *Theologia moralis adversus laxiores probabilistas* (Venice: Balleoni, 1667).
- Bauny, Etienne. *Somme des pechez qui se commettent en tous estats* (Paris: M. Soly, 1633).
- Bauny, Etienne. *Theologia moralis* (Paris: M. Soly, 1640).
- Baxter, Richard. *A Christian Directory* (London: Simmons, 1678).
- Bayle, Pierre. *Dictionnaire historique et critique* (Basle: J. L. Brandmuller, 1740).
- Becanus, Martin. *Summa Theologiae Scholasticae*. Tom. 2 (Lyon: Antoine Pillehote, 1617).
- Bellarmino, Roberto. *De scriptoribus ecclesiasticis* (Lyon: M. Mayer, 1675).
- Bernoulli, Jacob. *Ars Conjectandi* (Basle: Thurn, 1713).
- Bernoulli, Jacob. *Der Briefwechsel von Jacob Bernoulli*. Edited by A. Weil (Basel: Birkhäuser, 1993).
- Bernoulli, Jacob. *The Art of Conjecturing*. Edited by E. Sylla (Baltimore: The Johns Hopkins University Press, 2006).
- Bianchi, Andrea (Philalethes). *De opinionum praxi* (Madrid: Diego Diaz, 1645).
- Billuart, Charles René. *Summa S. Thomae sive cursus theologiae*. Vol. 2 (Louvain: Kints, 1754).
- Boethius. *De topicis differentiis*. Edited by E. Stump (Ithaca: Cornell University Press, 2004).
- Boileau, Nicolas. *Art poétique* (Paris: Flammarion, 1998).
- Bolgeni, Giovanni. *Il possesso principio fondamentale per decidere i casi morali* (Brescia: Bendiscioli, 1796).
- Bordoni, Francesco. *Propugnaculum opinionis probabilis in concursu probabilioris* (Lyon: Huguetan & Barbier, 1668).
- Bossi, Giovanni Angelo (Bossius). *Moralia varia* (Lyon: Borde & Arnaud, 1649).
- Bossuet, Jacques Bénigne de. *Correspondance*. Edited by Ch. Urbain and E. Levesque, Vol. 2, 1677–1683 (Paris: Hachette, 1909).
- Bresser, Martin. *De conscientia libri sex* (Antwerp: I. Cnobbari, 1638).

- Brocardus a Sancto Nicolao. *Theologia moralis fundamentalis* (Cologne: Noethen, 1735).
- Buridan, Jean. *Summulae de dialectica* (New Haven: Yale University Press, 2001).
- Busenbaum, Hermann. *Medulla theologiae moralis* (Münster: B. Raesfeld, 1652).
- Caesar, Gaius Julius. *The Gallic War* (Cambridge/Mass.: Harvard University Press, 1994).
- Cagnazzo, Giovanni. *Summa Summarum, quae Tabiena dicitur* (Bologna: B. Hector, 1520).
- Cajetanus (see Vio, Thomas).
- Camargo, Ignacio de. *Regula honestatis moralis* (Napoli: M.A. Mutio, 1702).
- Candido, Vincenzo. *Illustriores disquisitiones morales* (Rome: J. et P. Prost, 1638-1642).
- Cano, Melchor. *Locorum theologicorum libri duodecim* (Cologne: Arnold Birckmann, 1574).
- Cano, Melchor. *De locis theologicis*. Edited by J. Belda Plans (Madrid: Biblioteca Autores Cristianos, 2006).
- Capreolus, Jean. *In tertium librum sententiarum quaestiones* (Venice: Hieronymus Scott, 1588).
- Caramuel y Lobkowitz, Juan. *In Benedicti regulam* (Bruges: Breyghel, 1640).
- Caramuel y Lobkowitz, Juan. *Theologia moralis* (Louvain: P. Zanger, 1645).
- Caramuel y Lobkowitz, Juan. *Theologia moralis fundamentalis* (Frankfurt: Schonwetter, 1652).
- Caramuel y Lobkowitz, Juan. *Theologia moralis fundamentalis* (Lyon: L. Anisson, 1657).
- Caramuel y Lobkowitz, Juan. *Apologema pro antiquissima et universalissima doctrina de probabilitate contra Fagnani* (Lyon: L. Anisson, 1663).
- Caramuel y Lobkowitz, Juan. *Mathesis biceps* (Campania: In Officina Episcopali, 1670).
- Caramuel y Lobkowitz, Juan. *Dialexis de Non-Certitudine humanam libertatem in possessione et bona fide plene conservans* (Lyon: L. Anisson, 1675).
- Caramuel y Lobkowitz, Juan. *Theologia moralis fundamentalis* (Lyon: L. Anisson, 1675).
- Cardano, Girolamo. *The Book on Games of Chance. Liber de ludo aleae* (New York: Holt, Rinehart & Winston, 1961).
- Cardenas, Juan. *Crisis theologica* (Lyon: Arnaud & Borde, 1670).

- Cardenas, Juan. *Crisis theologica* (Seville: Lopez de Haro, 1687).
- Casnedi, Carlo Antonio. *Crisis theologica* (Lisbon: Deslandes, 1711).
- Castropalao, Fernando. *Opus morale de virtutibus et vitiis* (Lyon: Dufour, 1645).
- Castropalao, Fernando. *Opus morale de virtutibus et vitiis* (Lyon: Anison & Posuel, 1700).
- Clavasio, Angelo de. *Summa angelica de casibus conscientiae* (Lyon: Scipio de Gabano, 1534).
- Cicero, Marcus Tullius. *De Oratore, Books I-II*. The Loeb Classical Library, Vol. 348 (London: Loeb, 1957).
- Cicero, Marcus Tullius. *De Oratore, Book III, De Partitione oratoria*. The Loeb Classical Library, Vol. 349 (London: Loeb, 1948).
- Cicero, Marcus Tullius. "De Inventionem", In *Works*, Vol. 2 (London: Heineman, 1976).
- Cicero, Marcus Tullius. *Topica* (Oxford: Oxford University Press, 2003).
- Collegium Conimbricensis. *Commentaria in universam dialecticam Aristotelis* (Cologne: Bernard Walter, 1611).
- Comitoli, Paolo. *Responsa moralia* (Lyon: H. Cardon, 1609).
- Concina, Daniele. *Della storia del probabilismo e del rigorismo* (Lucca: Simone Occhi, 1748).
- Concina, Daniele. *Theologia Christiana dogmatico-moralis*. Tom. 7 (Rome: Simone Occhi, 1750).
- Concina, Daniele. *Ad Theologiam Christianam dogmatico-moralem apparatus*. Tom. 2 (Rome: Simone Occhi, 1751).
- Concina, Daniele. *Theologia christiana dogmatico-moralis*. Tom. 1 (Bologna: Simone Occhi, 1760).
- Condorcet, Jean Antoine Nicolas Caritat de. *Essai sur l'application de l'analyse à la probabilité de décisions rendues à la pluralité des voix* (Paris: Imprimerie Royale, 1785).
- Condorcet, Jean Antoine Nicolas Caritat de. *Esquisse d'un tableau historique des progrès de l'esprit humaine* (Paris: Agasse, 1794).
- Constant, Benjamin. "The Liberty of the Ancients Compared with that of the Moderns". In *Political Writings* (Cambridge: Cambridge University Press, 1988).
- Contenson, Vincent. *Theologia mentis et cordis*. Tom. 3 (Lyon: Arnaud & Borde, 1681).
- Cordoba, Antonio. *Quaestionarium theologicum* (Venice: Baretius Baretii, 1604).

- Coton, Antoine. *Summa Diana* (Lyon: Prost, Borde & Arnaud, 1646).
- Cotta, Johann Friedrich. *De probabilismo morali exercitatio*. 2 Vols (Jena: A. Müller, 1728).
- Crespin, François (Franciscus a Bona Spei). *Apologema retortum seu retorta disputatio apologetica de ignorantia invincibili, et opinionum probabilitate* (Antwerp: Engelbert Gymnic, 1665).
- Cruz, Luis de la (Ludovicus Cruceus). *Disputationes morales* (Lyon: N. Trichet, 1634).
- Danes, Pierre. *Institutiones Doctrinae Christianae*. Tom. 1 (Graz: Philipp Veit, 1738).
- De Angelis, Agostino. *De recto usu opinionis probabilis* (Rome: Fabio de Falchis, 1667).
- Delbene, Thomas. *Tractatus morales de conscientia et parliamentis* (Avignon: G. Halle, 1658).
- Denzinger, Heinrich. *Enchiridion symbolorum et definitionum quae in rebus fidei et morum a conciliis oecumenicis et summis pontificibus emanarunt* (Würzburg: Stahel, 1854).
- Descartes, René: *His Moral Philosophy and Psychology*. Edited by J. Blom (New York: New York University Press, 1978).
- Descartes, René: *The Philosophical Writings of Descartes*. Vols. I and II. Edited by J. Cottingham, R. Stoothoff and D. Murdoch (Cambridge: Cambridge University Press, 1985).
- Descartes, René: *The Philosophical Writings of Descartes*. Vol. III. Edited by J. Cottingham, R. Stoothoff, D. Murdoch and A. Kenny (Cambridge: Cambridge University Press, 1991).
- Diana, Antonino. *Clericis regularis et Sancti Officii regni Sicilia resolutiones morales* (Lyon: Jacques Prost, 1633).
- Diana, Antonino. *Clericis regularis et Sancti Officii regni Sicilia resolutiones morales* (Venice: Sylvester Esparsa, 1636).
- Diana, Antonino. *Clericis Regularis et Sancti Officii regni Sicilia resolutiones morales, editio novissima*. Tom. 9 (Antwerp: Jacob Meursius, 1645).
- Dicastillo, Juan de. *De sacramentis disputationes scholasticae et morales* (Antwerp: Jacob Meursius, 1652).
- Diez de Prado, Martin. *Teatro moral* (Salamanca: Gregorio Ortiz, 1685).
- Durandus de St. Pourçain. *In sententias theologicas Petri Lombardi commentaria* (Antwerp: Johan Stelsius, 1567).
- Duval, André. *Commentarii in Primam Secundae D. Thomae* (Paris: S. Cramoisy, 1636).

- Ehrentreich, Adam. *Principia et conclusiones de licentia actionum moralium et usu probabilis opinionis* (Rome: Luca Chracas, 1699).
- Elbel, Benjamin. *Theologia moralis sacramentalis* (Augsburg: Matthias Wolf, 1740).
- Elizalde, Miguel de. *De recta doctrina morum* (Lyon: Pierre Chevalier, 1670).
- Enriquez, Juan. *Questiones practicas de casos morales* (Cordoba: Salvador de Cea Tesa, 1646).
- Escobar y Mendoza, Antonio de. *Examen de confesores* (Saragossa: Juan de Lanaja, 1635).
- Escobar y Mendoza, Antonio de. *Liber theologiae moralis* (Lyon: Prost, Borde & Arnaud, 1646).
- Escobar y Mendoza, Antonio de. *Universa theologia moralis* (Lyon: Prost, Borde & Arnaud, 1652).
- Esparza, Martin de. *Cursus theologicus*. Tom. 1 (Lyon: Arnaud, Borde & Barbier, 1666).
- Esparza, Martin de. *Cursus theologicus, Appendix de usu licito opinionis probabilis* (Rome: Camera Apostolica, 1669).
- Estrix, Gilles. *Logistica probabilitatum* (Dillingen: Bencard, 1695).
- Estrix, Gilles. *Statera Saulis Exregis Ioannis Sinnichii* (Cologne: W. Friessen, 1703).
- Fabri, Honoré (Stubrock). *Notae in notas Willelmi Wendrockii ad Ludovici Montaltii litteras* (Cologne: Johannes Busaeus, 1659).
- Fabri, Honoré. *Pithanophilus, sive dialogus de opinione probabili* (Rome: H. Corbeletti, 1659).
- Fabri, Honoré. *Apologeticus doctrinae moralis eiusdem societatis* (Lyon: Laurent Anisson, 1670).
- Fagnani, Prospero. *Commentaria in quinque libros decretalium* (Roma: I. Cassoni, 1661).
- Fagnani, Prospero. *De opinione probabili. Dissertatio excerpta ex commentariis Prosperi Fagnani* (Rome: Haeredes Balleoni, 1765).
- Ferre, Vincente. *Tractatus theologici in Primam Secundae D. Thomae* (Salamanca: Lucas Perez, 1681).
- Ferriz, Francisco. *Ostensio veritatis probabiliorismi* (Valentia: J. T. Lucas, 1745).
- Filguera, Manuel. *Lucerna decretalis* (Madrid: L. Garcia, 1680).
- Filliucci, Vincenzo. *Moralium questionum de christianis officiis et casibus conscientiae* (Cologne: Hierat, 1629).
- Florentinus, Antoninus (see Antonino of Florence).

- Fonseca, Pedro. *Institutionum dialecticarum libri octo* (Cologne: G. Cholinus, 1567).
- Franciscus a Jesu Maria. *Collegii Salmaticensis cursus theologiae moralis*. 6 Vols. (Lyon: Landry, 1679).
- Fuentes, Miguel de. *Examen theologicum probabiliorismi* (Madrid: Antonio Roman, 1699).
- Fumo, Bartolomeo. *Summa aurea armilia* (Venice: Cavacalupo, 1560).
- Gamaches, Philippe de. *Summa theologiae* (Paris: Sebastien Cramoisy, 1627).
- Georges de Rhodes. *Disputationes scholasticae*. Vol. 1 (Lyon: Georges Prost, 1661).
- Gerson, Jean. *Opera Omnia*. 5 Vol (Antwerp: Sumptibus Societatis, 1706).
- Gerson, Jean. "De consolatione theologiae." In *Opera omnia*. Tom 1.
- Gerson, Jean. "Tractatus de contractibus." In *Opera omnia*. Tom. 3.
- Gerson, Jean. "Tractatus de praeparatione ad missam et pollutione nocturna." In *Opera omnia*, Tom. 3.
- Giannone, Pietro. *Apologia de' teologi scolastici* (Torino: Nino Aragno, 2011).
- Gisbert, Jean. *Antiprobabilismus* (Paris: Jean-Baptiste Delespine, 1703).
- Godefroid de Fontaines. *Quodlibetum nonum* (Louvain: Institut Supérieur de Philosophie, 1928).
- Gonet, Jean-Baptiste. *Clypeus theologiae thomisticae* (Cologne: Johann Wilhelm Fries, 1671).
- Gonet, Jean-Baptiste. *Clypeus theologiae thomisticae*. Tom 3 (Antwerp: Verdussen, 1700).
- Gonzalez, Tirso. *Tractatus succinctus de recto usu opinionum probabilium* (Dillingen: Johann Caspar Bencard, 1691).
- Gonzalez, Tirso. *Fundamentum theologiae moralis, id est tractatus theologicus de recto usu opinionum probabilium* (Rome: Jacob Komarek, 1694).
- Goudin, Antonio. *Philosophia iuxta inconcussa tutissimaque D. Thomae dogmata*. Tom. 1 (Milano: Vigone, 1674).
- Gradius, Stephan. *Disputatio de opinione probabili cum Honorato Fabri* (Rome: F. Citizzani, 1678).
- Granados, Jaime (Granadus). *Commentarii in Summam Theologiae Sancti Thomae* (Pont-à-Musson: Cramoisy, 1624).
- Gravina, Giuseppe. *Trattenimenti apologetici sul probabilismo*. 3 Vols (Palermo: Pietro Bentivenga, 1755).
- Gregory I (Pope). *Sancti Gregorii Magni Papae Primi Opera. Homiliae in Ezechielem* (Rome: Camera Apostolica, 1613).

- Gregory of Rimini. *Lectura super primum et secundum sententiarum* (Berlin: De Gruyter, 1987).
- Grosseteste, Robert. *Commentarius in posteriorum analyticorum libros* (Firenze: Olschki, 1981).
- Gualdo, Gabriele (Nicolas Peguleto). *Tractatus probabilitatis* (Louvain: Aegidius Prost, 1707).
- Guerrero, Antonio. *Theologia moralis D. Augustini* (Madrid: I. Balbas, 1733).
- Guillaume d'Auxerre. *Summa aurea in quattuor libros sententiarum* (Frankfurt/M.: Minerva, 1964. Reprint of Paris: 1500).
- Gury, Jean-Pierre. *Compendium theologiae moralis* (Ratisbon: Joseph Manz, 1857).
- Gutierrez Hurtado, Ildefonso. *Theologia moralis* (Madrid: I. Garcia, 1718).
- Habert, Louis. *Theologia dogmatica et moralis*. Vol. 3 (Venice: Balleoni, 1747).
- Hadrianus Florentius (Hadrian VI., Adrian of Utrecht). *Quaestiones quodlibeticae* (Leuven: T. M. Alustensis, 1515).
- Haunold, Christoph. *Theologia speculativa* (Ingolstadt: J. S. Knab, 1670).
- Henry of Ghent. *Quodlibeta*. Vol. 2 (Louvain: Bibliotheque SJ, 1961. Reprint of Paris: 1518).
- Hobbes, Thomas. *Leviathan*. Edited by E. Curley (Indianapolis: Hackett, 1994).
- Hugh of St. Victor. "De sacramentis christianae fidei." In J.-P. Migne. *Patrologia Latina*. Tom. 176 (Paris: 1865).
- Hume, David. *A Treatise of Human Nature* (Oxford: Oxford University Press, 2005).
- Hurtado de Mendoza, Pedro. *Scholasticae et morales disputationes*. 2 Vols (Salamanca: Hyacinth Taberniel, 1631).
- Hurtado, Tomas. *Praecursor theologus* (Antwerp: Willem Lesteen, 1641).
- Huygens, Christiaan. "De ratiociniis in ludo aleae". In: F. Schooten. *Exercitationes mathematicae*, 517-534 (Leiden: Elsevir, 1657).
- Illsung, Jakob. *Arbor scientiae boni et mali* (Dillingen: Bencard, 1693).
- Izquierdo, Sebastian. *Pharus scientiarum*. 2 Vols (Lyon: C. Bourgeat & M. Lietard, 1659).
- Jeremias de Padova (Fortunato da Brescia). *Probabilismus methodo mathematica demonstratus* (Lyon: anon., 1747).
- Johannes a Sancto Thoma, John of Saint Thomas (see Poinsot, Joao).

- Kant, Immanuel: *Gesammelte Schriften*. Akademieausgabe (Berlin: various years) [Quoted AA, No. of volume, page]
- Kant, Immanuel. *Critique of Pure Reason*. Edited by P. Guyer and A. Wood (Cambridge: Cambridge University Press, 1998).
- Kant, Immanuel. *Religion within the Boundaries of Mere Reason*. Edited by A. Wood and P. Di Giovanni (Cambridge: Cambridge University Press, 1997).
- Katzenberger, Kilian. *Supplementum theologiae moralis* (Salzburg: Johann Mayr, 1724).
- Krisper, Crescentius. *Theologia scholae Scotisticae* (Augsburg: Matthias Wolf, 1729).
- Labat, Pierre. *Theologia scholastica*. Tom. 3 (Toulouse: Arnaud Colomert, 1659).
- Lacroix, Claude. *Theologia moralis* (Cologne: Noethen, 1707).
- Laymann, Paul. *Theologia moralis* (Munich: Nicolaus Henrici, 1626).
- Ledesma, Pedro de: *Summa en la qual se summa y cifra todo lo moral y casos de conscientia* (Saragossa: Lucas Sanchez, 1611).
- Leibniz, Gottfried Wilhelm. *New Essays on Human Understanding* (Cambridge: Cambridge University Press, 1996).
- Lessius, Leonard. *De iustitia et iure* (Antwerp: Moretus, 1612).
- Liguori, Alfonso de. *Dell'uso moderato dell'opinione probabile* (Monza: Luca Corbetta, 1831).
- Liguori, Alfonso de: *Theologia moralis*, Vol. 1 (Bassano: Remondini, 1779).
- Locke, John. *An Essay Concerning Human Understanding* (Oxford: Oxford University Press, 1990).
- Lombardus, Petrus. (see Petrus Lombardus).
- Lopez, Luis. *Instructorium Conscientiae* (Lyon: Pierre Landry, 1592).
- Lugo, Francisco de. *Decursus praeuius ad theologiam moralem* (Madrid: Francisco Martinez, 1643).
- Lugo, Juan de. *Disputationes de iustitia et iure* (Lyon: Prost, Borde & Arnaud, 1646).
- Lumbier, Ramon. *Observationes theologico morales circa propositiones damnatas* (Barcelona: Oleo & Rosati, 1684).
- Major, John. *In quartum sententiarum quaestiones* (Paris: Jodocus Badius, 1516).
- Malatra, Jean François. *Specimen theologiae moralis* (Lyon: Antoine Boudet, 1698).

- Malebranche, Nicolas. *Search after Truth* (Cambridge: Cambridge University Press, 1997).
- Mamiani della Rovere, Lodovico. *Concordia doctrinae probabilistarum* (Rome: Georgius Plachis, 1708).
- Marin, José. *Christianam morum disciplinam* (Salamanca: Santa Cruz, 1768).
- Marinari, Antonio. *Opusculum de opinione probabili* (Rome: F. Mancini, 1666).
- Martinez de Prado, Juan. *Theologiae moralis quaestiones praecipuae* (Alcala: Diego Garcia, 1654).
- Mas, Luis Vicente. *Incommoda probabilismi* (Valencia: J. T. Lucas, 1767).
- Mastri, Bartolomeo. *Theologia moralis ad mentem DD. Seraphici et Subtilis* (Venice: Herz, 1671).
- Mattesilani, Matteo. "Super electione verioris opinionis cum controversia vertitur inter doctores." In G. Caccialupo. *Tractatus de modo studendi in utroque iure et vita doctorum* (Bologna: 1493).
- Mayr, Anton. *Theologia scholastica*. Tom. 1 (Ingolstadt: De la Haye, 1732).
- Mazzolini, Silvestro (de Prierio). *Silvestrinae summa, quae summa summarum merito nuncupatur* (Antwerp: Plantin, 1569).
- Medina, Bartolomé de. *Expositio in primam secundae angelici doctoris D. Thomae Aquinatis* (Venice: Pietro Dehuchino, 1580).
- Melanchton, Philipp. *Erotemata dialectices* (Bautzen: Wohlrab, 1564).
- Mendo, Andrés. *Statera opinionum benignarum in controversis moralibus* (Lyon: Boissat & Remeus, 1666).
- Mercori, Giulio. *Basis totius moralis theologiae* (Mantova: Osanas, 1658).
- Merenda, Antonius. *Disputatio de consilio* (Bologna: H.H. de Ducis, 1655).
- Merolla, Francesco. *Disputationes in universam theologiam moralem* (Naples: Lazaro Scorigi, 1631-1640).
- Michel, Augustinus. *Theologia canonico-moralis* (Augsburg: J. Bencard, 1707).
- Mickl, Quirin. *Lucubratio theologico-moralis circa praecipuum moralitatis systema* (Prague: Carol Hladky, 1747).
- Milhard, Pierre. *Vraye guide des curez, vicaires et confesseurs* (Sine loco: 1603).
- Moivre, Abraham de. *The Doctrine of Chances* (London: W. Pearson, 1718).
- Molina, Luis de. *Liberi arbitrii cum gratiae donis et concordia* (Antwerp: Joachim Troгнаes, 1595).
- Monaldus de Capodistria. *Summa perutilis atque aurea* (Lyon: Pierre Baleti, 1516).
- Montmort, Pierre de. *Essay d'analyse sur les jeux de hasard* (Paris: J. Quillau, 1708).
- Moya, Matías de. *Quaestiones selectae* (Cologne: Wilhelm Metternich, 1670).

- Moya, Matías de. *Selectarum quaestionum pars altera*. Appendix (Madrid: Antonio Gonzalez, 1678).
- Muniessa, Thomas. *Stimulus conscientiae* (Dillingen: Bencard, 1699).
- Navases, Mariano. *Moralis theologiae cursus*. Tom. 1 (Valencia: J. T. Lucas, 1754).
- Neubauer, Ignaz. *Theologia wirceburgensis*. Tom. 3 (Paris: Julien Lanier et Soc., 1852).
- Neumayr, Franz. *Notae theologicae pro tutela probabilismi* (Munich: Cräz & Summer, 1760).
- Nicole, Pierre (Wendrock). *Ludovici Montaltii Litterae Provinciales* (Cologne: Nicolaus Schouten, 1658).
- Nider, Johannes. *Consolatorium timoratae conscientiae* (Venice: Sabio, 1532).
- Noel, Alexandre (Natalis). *Theologia dogmatica et moralis*. Vol 1 (Cologne: Demen, 1698).
- Oñate, Pedro de. *De contractibus*. Tom. 3-2 (Rome: Francesco Caballi, 1654).
- Oudin, Casimir. *Supplementum de scriptoribus vel scriptis ecclesiasticis a Bellarmino omissis* (Paris: Antoine Dezallier, 1686).
- Palanco, Francisco. *Tractatus de conscientia humana* (Salamanca: G. O. Gallardo, 1694).
- Palmer, Roger (Lord Castlemaine). *A Short and True Account of the Material Passages in the Late War between the English and Dutch* (London: Herringman, 1671).
- Paludanus (see Pierre de la Palud).
- Panormitanus (Nicolaus de Tudeschis). *Opera omnia* (Frankfurt/M.: Vico, 2008. Reprint of Venice: 1588).
- Pascal, Blaise. *The Provincial Letters* (Harmondsworth: Penguin, 1982).
- Pasqualigo, Zaccaria. *Decisiones morales* (Verona: Bartolomeo Merlo, 1641).
- Patuzzi, Giovanni. *Lettere theologico-morali in difesa dell'istoria del probabilismo del P. Daniele Concina*. 8 Vols (Trento: 1752-1754).
- Paul de Lyon. *Totius theologiae moralis specimen*. Tom. 4 (Lyon: Bruyset, 1734).
- Peñafiel, Leonardo. *Disputationes scholasticae et morales* (Lyon: Huguetan, 1678).
- Perrault, Charles. *Parallèle des anciens et des modernes en ce qui regarde les arts et les sciences* (Genève: Slatkine, 1971).
- Perez, Antonio OSB. *Laurea Salmantina* (Salamanca: A. Taberniel, 1604).

- Perez, Antonio SJ. *De iustitia et iure* (Rome: Varesi, 1668).
- Peter of Spain (Petrus Hispanus). *Summulae logicales* (Venice: F. Sansovino, 1572).
- Petrus Lombardus. *Sententiae in Quatuor Libros Distinctae*. 2 Vols (Grottaferrata: Collegii S. Bonaventurae ad Aquas Claras, 1971-1981).
- Pierre de la Palud. *Scriptum in quartum sententiarum* (Venice: 1493).
- Poinsot, Joao (Johannes a Sancto Thoma). *Cursus theologici in primam secundae partem Divi Thomae* (Madrid: Maria de Quinones, 1645).
- Poinsot, Joao. *Cursus theologici in primam partem Divi Thomae* (Lyon: Borde, Arnaud & Barbier, 1663).
- Poinsot, Joao. *Cursus theologici in primam secundae partem Divi Thomae* (Cologne: Wilhelm Metternich, 1711).
- Prierias (see Mazzolini, Silvestro).
- Punch, John (Poncius). *Integer philosophiae cursus* (Lyon: Anisson, 1671).
- Quintilianus, Marcus Fabius. *Institutio oratoria*. Books I-III. The Loeb Classical Library. Vol. 124 (Cambridge/Mass.: Harvard University Press, 1996).
- Rachel, Samuel. *Examen probabilitatis quam Jesuitae novique casuistae theologiae suae moralis fundamentum constituerunt* (Helmstadt: Jakob Müller, 1664).
- Rassler, Christoph. *Norma recti* (Ingolstadt: J.A. de la Haye, 1713).
- Raynaud, Théophile. *Moralis disciplina* (Lyon: H. Cardon, 1629).
- Raynaud, Théophile. *Erotemata de malis ac bonis libris* (Lyon: Huguetan & Raynaud, 1653).
- Rebello, Ferdinando. *De obligationibus justitiae, religionis et charitatis* (Lyon: H. Cardon, 1608).
- Regnault, Valère. *Praxis foro poenitentialis* (Lyon: H. Cardon, 1616).
- Reiffenstuel, Anaklet. *Theologia moralis*. Tom. 1 (Munich: Johann Jaecklin, 1692).
- Rimini, Gregory of (see Gregory of Rimini).
- Rocafull, José. *Praxis totius moralis theologiae*. 2 Vols (Valencia: Juan Sonzoni, 1648).
- Rosmini, Antonio. *Conscience*. Transl. of *Trattato della coscienza morale* (Durham: Rosmini House, 2011).
- Sá, Manuel de. *Aphorismi confessoriorum* (Cologne: Johannes Crithius, 1608).

- Salas, Juan de. *Disputationes in Primam Secundae Divi Thomae*. Tom. 1 (Barcelona: Graells & Dotil, 1607).
- Salas, Juan. *Commentarii in Secundam Secundae D. Thomae. De contractibus* (Lyon: H. Cardon, 1617).
- Salon, Miguel. *Commentarii in disputationem de iustitia, quam habet D. Thomas secunda sectione, secundae partis suae Summae theologiae* (Venice: Bareti, 1608).
- San Bonaventura, Manuel de. *Propugnaculum probabilismi* (Pamplona: Francisco Picart, 1725).
- Sanchez, Juan. *Selectae et practicae disputationes* (Lyon: Boissart & Anisson, 1643).
- Sanchez, Tomás. *Disputationum de sancto matrimonio sacramento tomi tres* (Venice: Antonio Tivani, 1693).
- Sanchez, Tomás. *Opus morale in praecepta decalogi* (Antwerp: Nuti & Meursius, 1614).
- Sanderson, Robert. *De obligatione conscientiae* (London: Martin, Allestry & Dicas, 1660).
- Sanvitale, Jacopo. *Raccolta di molte proposizioni estratte dall'istoria del probabilismi e rigorismo impugnate oppositae al vero* (Aquileia: 1748).
- Sarasa, Alfonso. *Ars semper gaudendi* (Antwerp: Meursius, 1664).
- Sasserath, Reiner. *Cursus theologiae moralis* (Augsburg: M. Rieger, 1787).
- Sayer, Gregory (Sayre, Sayrus). *Clavis regia sacerdotum ...sive theologia moralis* (Venice: Bareti, 1605).
- Schildere, Louis de. *De principiis conscientiae formandae tractatus sex* (Antwerp: Meursius, 1664).
- Schnell, Anselm. *Cursus theologiae moralis*. Tom. 1 (Augsburg: J. Mauracher, 1747).
- Schwarz, Ignaz. *Institutiones juris universalis, naturae et gentium* (Augsburg: A. Heiss, 1743).
- Segneri, Paolo. *Lettera sulla materia del probabile* (Verona: 1730).
- Segovia, Caspar de. *Dissertatio de opinione probabili* (Rome: Paul Junch, 1795).
- Seneca, Lucius Annaeus. *Three Tragedies* (New York: Macmillan, 1909).
- Sforza Pallavicino, Pietro. *Assertionum theologicarum libri quinque*. Tom. 1/2 (Rome: Corbelletti, 1649).
- Sforza Pallavicino, Pietro. *Disputationes in Primam Secundae D. Thomae* (Lyon: Philippe Borde, 1653).
- Shguanin, Cesare. *Universae theologiae moralis basis et fundamentum* (Würzburg: M. Wagner, 1725).

- Shgvanin, Cesare. *Anatomia probabilismi* (Cologne: Franz Metternich, 1729).
- Sinnigh, John. *Saul ex-rex* (Leuven: Hieronymus Nempae, 1665).
- Soares, Cypriano. *De arte rhetorica* (Lucerne: Gottfried Hautt, 1668).
- Spinola, Stefano (Spinula). *De libera et prudenti agibilium electione in moralibus* (Genoa: Pietro Calervano, 1648).
- Sporer, Patrick. *Tyrocinium theologiae moralis* (Würzburg: Hertz, 1660).
- Struggl, Marcus. *Theologia universa*. Tom 1 (Vienna: Lazaroni&Tabacco, 1744).
- Suárez, Francisco. *Opera omnia* (Paris: Vives, 1856-1878).
- Suárez, Francisco. "De Bonitate et malitia humanorum actuum." In *Opera omnia*. Vol. 4 (Paris: Vives, 1856).
- Summenhart, Konrad. *De contractibus licitis atque illicitis* (Venice: B. Iunta, 1580).
- Tamburini, Tomaso. *Explicatio decalogi* (Venice: Turrinus, 1654).
- Tamburini, Tomaso. *Explicatio decalogi* (Lyon: Anisson, 1669).
- Tanner, Adam. *Disputationes theologicae ...in omnes partes Summae theologicae S. Thomae* (Ingolstadt: Elisabeth Angermair, 1618).
- Tassoni, Alessandro. *Dieci libri di pensieri diversi* (Venice: Marcantonio Brogiollo, 1627).
- Taylor, Jeremy. "Ductor Dubitantium." In *Works*. Vol. 9/10 (London: Longman, 1852. Reprint of London: 1660).
- Terill, Anthony (Terillus). *Problema mathematico-philosophicum tripartitum de termino magnitudinis, ac virium in animalibus* (Parma: Vigna, 1660).
- Terill, Anthony. *Fundamentum totius theologiae moralis* (Leuven: Hovius, 1669).
- Terill, Anthony. *Regula morum* (Leuven: Hovius, 1678).
- Toledo, Francisco de. *Summa de instructione sacerdotum* (Lyon: H. Cardon, 1599).
- Torre, Pedro de la. *Difficilis praxis probabiliorismi* (Madrid: I. Espartosa, 1721).
- Torrecilla, Martin de. *Suma de todas las materias morales*. Tom. 1 (Madrid: Antonio Roman, 1696).
- Torres, Luis (Turrianus). *Disputationes in Secundam Secundae D. Thomae* (Lyon: H. Cardon, 1621).
- Tournely, Honoré. *Praelectiones theologicae sive Universae theologiae moralis tractatus*. Tom. 1 (Venice: N. Pezzana, 1764).

- Valencia, Gregorio de. *Commentarius in Primam Secundae S. Thomae* (Ingolstadt: David Sartorius, 1592).
- Valla, Lorenzo. *Repastinatio dialectice et philosophie*. Edited by G. Zippel, 2 Vols (Padua: Antenore, 1982).
- Valla, Lorenzo. *Dialectical Disputations*. Edited by B. Copenhaver and L. Nauta, 2 Vols. (Cambridge, MA: Harvard University Press, 2012).
- Vazquez, Gabriel. *Disputationes in Primam Secundae S. Thomae*. Tom. 1 (Ingolstadt: Hertsroy&Angermair, 1606).
- Vidal, Marco. *Arca vitalis* (Venice: Omnibeni Ferretti, 1650).
- Villalobos, Enrique de. *Manual de confesores* (Saragossa: Juan de Ybar, 1649).
- Villalobos, Enrique de. *Suma de la teologia moral*. Tom. 2 (Madrid: Gabriel de Leon, 1682).
- Vio, Thomas de. *Summula peccatorum* (Douai: Baltazar Beller, 1627).
- Wigandt, Martin. *Tribunal confessoriorum et ordinandorum declinato probabilismo* (Augsburg: Bencard, 1703).
- Ysambert, Nicolas. *Disputationes in Primam Secundae Sancti Thomae* (Paris: Typographia Librorum Officii Ecclesiastici, 1648).

Secondary literature

- Adler, Jonathan. *Belief's Own Ethics* (Cambridge/Mass.: MIT Press, 2002).
- Adler, Jonathan. "Epistemological Problems of Testimony." *The Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version Spring 2013). <http://plato.stanford.edu/entries/testimony-episprob/>
- Aertnys, Josef. *Probabilismus oder Aequiprobabilismus?* (Paderborn: F. Schöningh, 1896).
- Aertsen, Jan and Martin Pickavé, eds. *Herbst des Mittelalters?* (Berlin: De Gruyter, 2004).
- Affo, Ireneo. *Memorie della vita e degli studi del Cardinale Sforza Pallavicino* (Parma: Stamperia Reale, 1794).
- Alexander, Amir. *Infinitesimal. How a Dangerous Mathematical Theory Shaped the Modern World* (New York: Farrar, Straus and Giroux, 2014).
- Alexander, Larry. "Scalar Properties, Binary Judgments." *Journal of Applied Philosophy* 25 (2008): 85-104.
- Alfieri, Fernanda. *Nella camera degli sposi* (Bologna: Il Mulino, 2010).
- Alston, William "The Deontological Conception of Epistemic Justification." In *Epistemic Justification*. Edited by W. Alston, 115–152 (Ithaca: Cornell University Press, 1989).
- Amann, Emile. "Laxisme." In *Dictionnaire de théologie catholique*, Vol. 9/1. Edited by A. Vacant and E. Mangenot, 37-86 (Paris: Letouzey et Ané, 1926).
- Anagnostopoulos, Georgios. *Aristotle on the Goals and Exactness of Ethics* (Berkeley: University of California Press, 1994).
- Anagnostopoulos, Georgios. "Aristotle's Methods." In *A Companion to Aristotle*. Edited by G. Anagnostopoulos, 101-122 (Oxford: Blackwell, 2009).
- Andersen, Claus. *Metaphysik im Barockscotismus* (Amsterdam: Benjamins, 2016).
- Angelozzi, Giancarlo. "L'insegnamento dei casi di coscienza nella pratica educativa della Compagnia di Gesù." In *La Ratio Studiorum*. Edited by G. Brizzi, 121-162. (Rome: Bulzoni Editore, 1981).
- Ariew, Roger and Alan Gabbey. "The Scholastic Background." In *The Cambridge History of Seventeenth-Century Philosophy*, Vol. 1. Edited by D. Garber and M. Ayers, 425-453 (Cambridge: Cambridge University Press, 1998).
- Astrain, Antonio. *Historia de la Campania de Jesus en la asistencia de Espana*. Vol. 6 (Madrid: Administracion de Razon y Fe, 1920).

- Ayers, Michael. *Locke. Epistemology*. Vol. 1 (London: Routledge, 1991).
- Baffetti, Giovanni. *Retorica e Scienza. Cultura gesuitica e seicento italiano* (Bologna: CLUEB, 1997).
- Baghrarian, Maria and Attracta Ingram, eds. *Pluralism. The Philosophy and Politics of Diversity* (London: Routledge, 2000).
- Baghrarian, Maria. *Relativism* (London: Routledge, 2005).
- Baldini, Ugo. "Animal Motion before Borelli: 1600–1680." In *Marcello Malpighi. Anatomist and Physician*. Edited by D. Bertoloni Meli, 193-246 (Firenze: L.S. Olschiki, 1997).
- Bamji, Alexandra and Gert Janssen, eds. *The Ashgate Research Companion to the Counter-Reformation* (Aldershot: Routledge, 2013).
- Baroncini, Gabriele. "L'insegnamento della filosofia naturale nei collegi italiani dei Gesuiti (1610-1670)." In *La 'Ratio Studiorum'*. Edited by G. Brizzi, 163-190 (Rome: Bulzoni Editore, 1981).
- Bärsch, Jürgen, ed. *Johannes Eck* (Regensburg: Friedrich Pustet, 2014).
- Belda Plans, Juan. *La escuela de Salamanca* (Madrid: Biblioteca De Autores Cristianos, 2000).
- Bellhouse, David. "De Vetula – A Medieval Manuscript Containing Probability Calculations." *International Statistical Review* 68 (2000): 123-36.
- Berg, Sven. "Condorcet's Jury Theorem and the reliability of majority voting." *Group Decision and Negotiation* 5 (1996): 229-238.
- Berlin, Isaiah. *Four Essays on Liberty* (Oxford: Oxford University Press, 1969).
- Berlin, Isaiah. *The Proper Study of Mankind. An Anthology of Essays* (New York: Farrar, Straus and Giroux, 2000).
- Bermudez, José. "The Originality of Cartesian Skepticism. Did it Have Ancient or Medieval Antecedents?" *History of Philosophy Quarterly* 17 (2000): 333-360.
- Bertoloni Meli, Domenico. "The Neoterics and Political Power in Spanish Italy: Giovanni Alfonso Borelli and his Circle". *History of Science* 34 (1996): 57-90.
- Biagioli, Mario. *Galileo, Courtier* (Chicago: University of Chicago Press, 1993).
- Bianchi, Luca. *Censure et liberté intellectuelle a l'université de Paris, XIIIe-XIVe siècles* (Paris: Les Belles Lettres, 1999).
- Biller, Peter and Alastair Minnis, eds. *Handling Sin: Confession in the Middle Ages* (York: York Medieval Press, 2013).

- Bireley, Robert. *The Refashioning of Catholicism 1450-1700* (Washington D.C.: CUA Press, 1999).
- Black, Robert. *Benedetto Accolti and the Florentine Renaissance* (Cambridge: Cambridge University Press, 2002).
- Blackwell, Richard. *Behind the Scenes at Galileo's Trial* (Notre Dame: University of Notre Dame Press, 2006).
- Blic, Jacques de. "Barthelemy de Medina et les origines du probabilisme." *Ephemerides Theologicae Lovanienses* (1930): 46-83, 264-291.
- Blomme, Robert. *La doctrine du péché dans les écoles théologiques de la première moitié du XII siècle* (Louvain: Duculot, 1958).
- Blum, Paul. *Studies on Early Modern Aristotelianism* (Leiden: Brill, 2012).
- Boarini, Serge, ed. *La casuistique classique. Genèse, formes, devenir* (Saint-Étienne: Publications de l'Université de Saint-Étienne, 2009).
- Bolton, Robert. "Definition and Scientific Method in Aristotle's Posterior Analytics and Generation of Animals." In *Philosophical Issues in Aristotle's Biology*. Edited by A. Gotthelf and J. Lennox, 120-166 (Cambridge: Cambridge University Press, 1987).
- Bolton, Robert. "The Epistemological Basis of Aristotelian Dialectic." In *From Puzzles to Principles. Essays on Aristotle's Dialectic*. Edited by M. Sim, 57-105. (Lanham: Lexington Books, 1999).
- Bordes, Maurice. "Le père Theophile Raynaud. Jesuite ne a Sospel." <https://www.departement06.fr/documents/Import/decouvrir-les-am/rr89-1984-04.pdf>.
- Boyle, Leonard. "Summae confessorum." In *Les genres littéraires dans les sources théologiques et philosophiques médiévales*. Edited by R. Bultot, 227-237 (Louvain-la-Neuve: U.C.L., 1982).
- Brams, Stephen and A. Taylor. *Fair Division* (Cambridge: Cambridge University Press, 1996).
- Braun, Harald, and E. Vallance, eds. *Contexts of Conscience in Early Modern Europe 1500-1700* (Houndmills: Palgrave-Macmillan, 2004).
- Braun, Harald, and Erik de Bom, eds. *Companion to the Spanish Scholastics* (Leiden: Brill, forthcoming).
- Breitling, Richard. "The Concept of Pluralism." In *Three Faces of Pluralism*. Edited by S. Ehrlich and G. Wotton, 1-19 (Westmead: Gower Publishing, 1980).
- Brett, Annabel. *Liberty, Right and Nature* (Cambridge: Cambridge University Press, 1997).
- Broadie, Alexander. *The Circle of John Mair* (Oxford: Clarendon Press, 1985).

- Broughton, Janet. *Descartes's Method of Doubt* (Princeton: Princeton University Press, 2002).
- Brower, Jeffrey, and Kevin Guilfooy, eds. *The Cambridge Companion to Abelard* (Cambridge: Cambridge University Press, 2004).
- Brown, Robert. "History versus Hacking on Probability." *History of European Ideas* 8 (1987): 655-73.
- Buck, August. *Die "Querelle des anciens et des modernes" im italienischen Selbstverständnis der Renaissance und des Barocks* (Wiesbaden: F. Steiner, 1973).
- Bukala, Marcin. *Risk and Medieval Negotium* (Spoleto: Fondazione Centro Italiano di Studi sull'alto Medioevo, 2014).
- Burkhard, Dominik and Tanja Thanner, eds. *Der Jansenismus – eine ,katholische Häresie'?* (Münster: Aschendorff, 2014).
- Burgio, Santo. *Teologia Barocca. Il probabilismo in Sicilia nell'epoca di Filippo IV* (Catania: Soc. di Storia patria per la Sicilia orientale, 1998).
- Burgio, Santo: "Il probabilismo moderato nella 'Theologia moralis' (1671) di Bartolomeo Mastri." In *Rem in seipsa cernere. Saggi sul pensiero filosofico di Bartolomeo Mastri (1602–1673)*. Edited by M. Forlivesi, 685-700 (Padova: Il poligrafo, 2006).
- Buss, Sarah. "Personal Autonomy." *The Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version June 2013).
<https://plato.stanford.edu/entries/personal-autonomy/>.
- Byrne, Edmund. *Probability and Opinion. A Study in the Medieval Presuppositions of Post-Medieval Theories of Probability* (The Hague: Nijhoff, 1968).
- Byron, Michael, ed. *Satisficing and Maximizing: Moral Theorists on Practical Reason* (Cambridge: Cambridge University Press, 2004).
- Cameron, Euan. *Enchanted Europe. Superstition, Reason, and Religion, 1250-1750* (Oxford: Oxford University Press, 2010).
- Campanelli, Marcella. *I Teatini. L'Inchiesta di Innocenzo X sui regolari in Italia* (Rome: Editore di Storia e Letteratura, 1987).
- Cao, Gian Mario. "The Prehistory of Modern Scepticism." *Journal of the Warburg and Courtauld Institutes* 64 (2002), 229-279.
- Catto, Michela. *La compagnia divisa. Il dissenso nell'ordine gesuitico tra '500 e '600* (Brescia: Morcelliana, 2009).
- Ceccarelli, Giovanni. "Risky Business. Theological and Canonical Thought on Insurance From the Thirteenth to the Seventeenth Centuries". *Journal of Medieval and Early Modern Studies* 31 (2001): 607-658.

- Ceccarelli, Giovanni. *Il gioco e il peccato. Economia e rischio nel tardo Medioevo* (Bologna: Il Mulino, 2003).
- Ceyssens, Luc. *Le Cardinal François Albizzi (1593–1684)* (Rome: Ponteficium Athenaeum Antonianum, 1977).
- Chang, Ruth, ed. *Incommensurability, Incomparability and Practical Reason* (Cambridge/Mass.: Harvard University Press, 1997).
- Chignell, Andrew. “Belief in Kant.” *Philosophical Review* 116 (2007): 323–360.
- Christensen, Clayton. *The Innovator’s Dilemma* (Boston: Harvard Business School Press, 1997).
- Christensen, David and Jennifer Lackey, eds. *The Epistemology of Disagreement* (Oxford: Oxford University Press, 2016).
- Cohen, Laurence. *An Essay on Belief and Acceptance* (Oxford: Clarendon Press, 1992).
- Colish, Marcia. *Studies in Scholasticism* (Aldershot: Ashgate, 2006).
- Colombo, Emanuele. *Un gesuita inquieto. Carlo Antonio Casnedi (1643-1725) e il suo tempo* (Soveria Mannelli, Rubbettino: 2007).
- Conley, Kieran. *A Theology of Wisdom* (Dubuque: The Priory Press, 1963).
- Copenhaver, Brian and Charles Schmitt. *Renaissance Philosophy* (Oxford: Oxford University Press, 1992).
- Cottret, Monique. *Histoire du Jansénisme, XVIIe–XIXe siècle* (Paris: Perrin, 2016).
- Cox, Virginia and John Ward, eds. *The Rhetoric of Cicero in its Medieval and Early Renaissance Commentary Tradition* (Leiden: Brill, 2006).
- Crowder, George. *Liberalism and Value Pluralism* (London: Continuum, 2002).
- Curtius, Ernst. *European Literature and the Latin Middle Ages* (Princeton: Princeton University Press, 2013).
- Daston, Lorraine. *Classical Probability in the Enlightenment* (Princeton: Princeton University Press, 1988).
- Daston, Lorraine. “Probability and Evidence.” In *Cambridge History of Seventeenth-Century Philosophy*, vol. 2. Edited by D. Garber and M. Ayers, 1108-1144. (Cambridge: Cambridge University Press, 1998).
- Davis, Richard. *The Origins of Modern Freedom in the West* (Stanford: Stanford University Press, 1996).
- De Boer, Wietse. *The Conquest of the Soul. Confession, Discipline, and Public Order in Counter-Reformation Milan* (Leiden: Brill, 2001).

- Decock, Wim. "Lessius and the Breakdown of the Scholastic Paradigm." *Journal of the History of Economic Thought* 31 (2009): 57-78.
- Decock, Wim. *Theologians and Contract Law. The Moral Transformation of the Ius Commune (ca. 1500-1650)* (Leiden: Nijhoff, 2013).
- Decock, Wim and Christiane Birr. *Recht und Moral in der Scholastik der Frühen Neuzeit, 1500–1750* (Berlin: de Gruyter, 2016).
- Deely, John. *Descartes & Poinsot* (Scranton, PA: University of Scranton Press, 2008).
- Deininger, Franz Johannes Sinnich. *Der Kampf der Löwener Universität gegen den Laxismus* (Düsseldorf: Druck von L. Schwann, 1928).
- Delbeke, Maarten. *The Art of Religion. Sforza Pallavicino and Art Theory in Bernini's Rome* (Farnham: Routledge, 2012).
- Della Rocca, Michael. "Judgement and Will." In *The Blackwell Guide to Descartes' Meditations*. Edited by S. Gaukroger, 142-159. (Oxford: Blackwell, 2006).
- Delumeau, Jean. *L'aveu et le pardon* (Paris: Fayard, 1990).
- Deman, Thomas. "Probabilis." *Revue des sciences philosophiques et théologiques* 22 (1933): 260-290.
- Deman, Thomas. "Probabilisme." In *Dictionnaire de théologie catholique*, vol. 3/1. Edited by A. Vacant and E. Mangenot, 417-619. (Paris: Letouzey et Ané, 1936).
- Devlin, Keith. *The Unfinished Game* (New York: Basic Books, 2008).
- Diebolt, Joseph. *La théologie morale catholique en Allemagne au temps du philosophisme et de la restauration 1750-1850* (Strasbourg: Roux, 1926).
- Döllinger, Ignaz, and Franz Reusch. *Geschichte der Moralstreitigkeiten in der römisch-katholischen Kirche seit dem 16. Jahrhundert* (Nördlingen: C.H. Beck, 1889).
- Douven, Igor. "Uniqueness Revisited." *American Philosophical Quarterly* 46 (2009): 347-361.
- Doyle, William. *Jansenism* (Basingstoke: Macmillan Press Ltd., 2000).
- Dvorák, Petr. *Juan Caramuel y Lobkowitz. The Last Scholastic Polymath* (Prague: Philosophia, 2008).
- Dziuba, Andrzej. "Juan Azor SJ, teólogo moralista del siglo XVI-XVII." *Archivo Teológico Granadino* 59 (1996): 145-155.
- Eisen Murphy, Claudia. "Aquinas on Voluntary Beliefs." *American Catholic Philosophical Quarterly* 74 (2000): 569-597.
- Elazar, Michael. *Honoré Fabri and the Concept of Impetus* (Dordrecht: Springer, 2011).

- Engelbrecht, Wilken. "On modernus and modernitas in Medieval Latin." *Mittellateinisches Jahrbuch* 50 (2015): 241-251.
- Ernst, Stephan. "Umgang mit moralischer Differenz. Ansatzpunkte in der Tradition der Moralthologie." In *Theologische Ethik im Pluralismus*. Edited by K. Hilpert, 47-73. (Fribourg: Academic Press, 2012).
- Estlund, David. "Opinion Leaders, Independence, and Condorcet's Jury Theorem." *Theory and Decision* 36 (1994): 131-162.
- Estlund, David. *Democratic Authority* (Princeton: Princeton University Press, 2008).
- Evans, Gillian. *Law and Theology in the Middle Ages* (London: Routledge, 2002).
- Faucher, Nicolas. *Les garanties de la foi chez les penseurs franciscaines des XIIIème siècle et du début de XIVème siècle*. PhD diss (Paris and Bari: EPHE, 2015).
- Feingold, Mordechai, ed. *Jesuit Science and the Republic of Letters* (Cambridge/Mass: MIT Press, 2003).
- Feingold, Mordechai, ed. *The New Science and Jesuit Science. Seventeenth Century Perspectives* (Dordrecht: Kluwer Academic Publishers, 2003).
- Feldman, Richard, and Ted Warfield, eds. *Disagreement* (Oxford: Oxford University Press, 2010).
- Fellmann, Emil. "Honoré Fabry (1607-1688) als Mathematiker - eine Reprise." In *The Investigation of Difficult Things: Essay on Newton and the History of the Exact Sciences in Honor of D. T. Whiteside*. Edited by P. Harman and A. Shapiro, 97-112. (Cambridge: Cambridge University Press, 1992).
- Ferreyrolles, Gérard. *Blaise Pascal – Les Provinciales* (Paris: Presses Universitaires de France, 1984).
- Field, Arthur. *The Origins of the Platonic Academy of Florence* (Princeton: Princeton University Press, 1988).
- Findlen, Paula, ed. *Athanasius Kircher. The Last Man Who Knew Everything* (New York: Routledge, 2004).
- Firey, Abigail, ed. *A New History of Penance* (Leiden: Brill, 2008).
- Fisher, Alexander. *Music, Piety, and Propaganda. The Soundscapes of Counter-Reformation Bavaria* (Oxford: Oxford University Press, 2014).
- Fleming, Julia. *Defending Probabilism. The Moral Theology of Juan Caramuel* (Washington D.C.: Georgetown University Press, 2006).

- Fleming, Julia. "Seventeenth-Century Casuistry Regarding Persons With Disabilities. Antonino Diana's Tract 'On The Mute, Deaf, and Blind'." *Journal of Moral Theology* 6 (2017): 112-137.
- Fletcher, John. *A Study of the Life and Works of Athanasius Kircher 'Germanus Incredibilis'* (Leiden: Brill, 2011).
- Floridi, Luciano. *Sextus Empiricus. The Transmission and Recovery of Pyrrhonism* (Oxford: Oxford University Press, 2002).
- Forlivesi, Marco. "Il problema storiografico della nozione di 'filosofia scolastica' e la genesi della nozione di 'seconda scolastica'." *Trans/Form/Ação* 37 (2014): 169-208.
- Forster, Marc. *Catholic Revival in the Age of the Baroque* (Cambridge: Cambridge University Press, 2001).
- Fouquieray, Henri. *Histoire de la Compagnie de Jésus en France*. Vol. 5 (1925).
- France, Peter. *Politeness and Its Discontents. Problems in French Classical Culture* (Cambridge: Cambridge University Press, 1992).
- Frances, Bryan and Matheson, Jonathan. "Disagreement." *Stanford Encyclopedia of Philosophy*. E. Zalta (Version February 2018).
<https://plato.stanford.edu/entries/disagreement/>.
- Franklin, James. *The Science of Conjecture* (Baltimore: Johns Hopkins University Press, 2001).
- Franklin James. "Probable Opinion." In *Oxford Handbook of British Philosophy in the Seventeenth Century*. Edited by P. Anstey, 349-371. (Oxford: Oxford University Press, 2013).
- Frede, Dorothea. "The Endoxon Mystique." *Oxford Studies in Ancient Philosophy* 43 (2013): 185-215.
- Freudenthal, Hans. "Huygens' Foundations of Probability." *Historia Mathematica* 7 (1980): 113-117.
- Friedman, Nir and Joseph Halpern. "Plausibility Measures: A User's Guide." In *Proceedings of the Eleventh Conference on Uncertainty*. Edited by P. Besnard and S. Hanks, 175-184. (San Mateo: Morgan Kaufmann Publishers, 1995).
- Friedrich, Carl. *The Age of the Baroque* (New York: Harper, 1952).
- Fumaroli, Marc. *La Querelle des anciens et des modernes* (Paris: Éditions Gallimard, 2001).
- Gaertner, Wulf and Marlies Klemisch-Ahlert. *Social Choice and Bargaining Perspectives on Distributive Justice* (Berlin: Springer, 1992).

- Gagarin, Michael. "Probability and Persuasion. Plato and Early Greek Rhetoric." In *Persuasion. Greek Rhetoric in Action*. Edited by I. Worthington, 46-68. (London: Routledge, 1994).
- Galasso, Giuseppe. *Napoli spagnola dopo Masaniello. Politica, cultura, società* (Napoli: Edizioni Scientifiche Italiane, 1972).
- Galston, William. *Liberal Pluralism* (Cambridge: Cambridge University Press, 2002).
- Gandillac, Maurice de. "De l'usage et de la valeur des arguments probables dans les questions du Cardinal Pierre d'Ailly sur le 'Livre des Sentences'." *Archives d'histoire doctrinale et littéraire du Moyen Âge* 8 (1933): 43-91.
- Ganzer, Klaus. *Unanimitas, maioritas, pars sanior. Zur repräsentativen Willensbildung von Gemeinschaften in der kirchlichen Rechtsgeschichte* (Stuttgart: Steiner, 2000).
- Garber, Daniel and Sandy Zabell. "On the Emergence of Probability." *Archive for History of Exact Sciences* 21 (1979): 33-53.
- García Ocaña, Marcelo. *Molinismo y libertad* (Cordoba: Cordoba Obra Social Y Cultural Cajasur, 2000).
- García-Villoslada, Ricardo. *La universidad de Paris durante los estudios de Francisco Vitoria OP* (Rome: University Gregoriana, 1938).
- García-Villoslada, Ricardo. *Storia del Collegio Romano dal suo inizio (1551) alla soppressione della Compagnia di Gesù (1773)* (Rome: Universitas Gregoriana, 1954).
- Gardeil, Ambroise. "La 'certitude probable'." *Revue des sciences philosophiques et théologiques* 5 (1911): 237-266.
- Gay, Jean-Pascal. "Laxisme et rigorisme." *Revue des sciences philosophiques et théologiques* 3 (2003): 525-548.
- Gay, Jean-Pascal. "Du 'joug léger' à la 'porte étroite'. Le rythme de la répudiation de la casuistique classique en France au XVIIe siècle." In Boarini (2009): 87-114.
- Gay, Jean-Pascal. *Morales en conflit. Théologie et polémique au Grand Siècle, 1640–1700* (Paris: Cerf, 2011).
- Gay, Jean-Pascal. *Jesuit Civil Wars. Theology, Politics and Government under Tirso González (1687-1705)* (Farnham: Ashgate, 2012).
- Gerson, Lloyd. *Ancient Epistemology* (Cambridge: Cambridge University Press, 2009).
- Giacon, Carlo. *La Seconda scolastica*. 3 Vols. (Milan: Fratelli Bocca, 1944-50).
- Giard, Luce, ed. *Les jésuites à la Renaissance* (Paris: Presses Universitaires de France, 1995).

- Giard, Luce, and Louis de Vaucelles, eds. *Les Jésuites à l'âge baroque* (Grenoble: Millon, 1996).
- Gillies, Donald. *Philosophical Theories of Probability* (London: Routledge, 2000).
- Glucker, John. "Probabile, Verisimile, and Related Terms." In *Cicero the Philosopher*. Edited by J. Powell, 115-143. (Oxford: Clarendon Press, 1995).
- Godfroy-Genin, Anne-Sophie. *De la doctrine de la probabilité à la théorie des probabilités. Pascal, La Logique de Port-Royal, Jacques Bernoulli* (Lille: Atelier National de Reproduction des Theses, 2004).
- Godman, Peter. *Paradoxes of Conscience in the High Middle Ages* (Cambridge: Cambridge University Press, 2009).
- Goering, Joseph: "The Internal Forum and the Literature of Penance and Confession." In *The History of Medieval Canon Law in the Classical Period 1140-1234*. Edited by W. Hartmann and K. Pennington, 379-428. (Washington D.C.: Catholic University of America Press, 2008).
- Goldman, Alvin. "Epistemics – The Regulative Theory of Cognition." *Journal of Philosophy* 75 (1978): 509-523.
- Goldman, Alvin and Thomas Blanchard. "Social Epistemology." *The Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version April 2015), <http://plato.stanford.edu/entries/epistemology-social/>.
- Gómez Camacho, Francisco. *Espacio y tiempo en la Escuela de Salamanca. El tratado de J. de Lugo SJ 'Sobre la composición del continuo'* (Salamanca: Ediciones Universidad de Salamanca, 2004).
- Gómez Camacho, Francisco. *Economía y filosofía moral. La formación del Pensamiento económico europeo en la Escolástica española* (Madrid: Síntesis, 1998).
- Goodman, Dena. *The Republic of Letters. A Cultural History of the French Enlightenment* (Ithaca: Cornell University Press, 1994).
- Gracia, Jorge and Timothy Noone, eds. *A Companion to Philosophy in the Middle Ages* (New York: Blackwell, 2003).
- Grafton, Anthony, and Lisa Jardine. *From Humanism to the Humanities* (London: Duckworth, 1986).
- Green-Pedersen, Niels. *The Tradition of the Topics in the Middle Ages: The Commentaries on Aristotle's and Boethius' Topics* (Munich: Philosophia, 1984).
- Grendler, Paul. *The Jesuits and Italian Universities 1548–1773* (Washington D.C.: CUA Press, 2017).

- Grice-Hutchinson, Marjorie. *The School of Salamanca: Readings in Spanish Monetary Theory, 1544-1605* (Oxford: Clarendon Press, 1952).
- Grice-Hutchinson, Marjorie, E. Lluch and B. Schefold, eds. *Martín de Azpilcuetas "Comentario resolutorio de Cambios" und Luis Ortiz' "Memorial del Contador Luis Ortiz a Felipe II"* (Düsseldorf: Verlag Wirtschaft und Finanzen, 1998).
- Grosse, Sven. *Heilungsgewissheit und Scrupulositas im späten Mittelalter* (Tübingen: J.C.B. Mohr, 1994).
- Grundmann, Herbert. "Litteratus – illitteratus." In *Ausgewählte Aufsätze*, Vol. 3. Edited by H. Grundmann, 1-66 (Stuttgart: Hiersemann, 1978).
- Guggisberg, Hans, Frank Lestringant and Jean Claude Margolin, eds. *La liberté de conscience (XVIe-XVIIe siècles)* (Geneva: Librairie Droz, 1991).
- Hacking, Ian. *The Emergence of Probability* (Cambridge: Cambridge University Press, 1975).
- Hacking, Ian. *The Emergence of Probability*. Revised ed. (Cambridge: Cambridge University Press, 2006).
- Hájek, Alan. "Interpretations of Probability." *The Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version December 2011). <http://plato.stanford.edu/archives/win2012/entries/probability-interpret/>.
- Hald, Anders. *A History of Probability and Statistics and Their Applications before 1750* (New York: Wiley, 2003).
- Haliczer, Stephen. *Sexuality in the Confessional* (Oxford: Oxford University Press, 1996).
- Hall, Marcia and Tracy Cooper, eds. *The Sensuous in the Counter-Reformation Church* (Cambridge: Cambridge University Press, 2013).
- Halpern, Joseph. *Reasoning about Uncertainty* (Cambridge/Mass: MIT Press, 2003).
- Hamilton, Elizabeth. *The Illustrious Lady. A Biography of Barbara Villiers* (London: Hamilton, 1980).
- Hammond, Frederick. *Music & Spectacle in Baroque Rome. Barberini Patronage under Urban VIII* (New Haven: Yale University Press, 1994).
- Hanke, Miroslav. "Between Imagination and Gambling." In *Paradigm Shifts at Early Modern Universities. Studies in the Teaching of Logic and Natural Philosophy (c. 1450-1750)*. Edited by S. Coesemans, C. Geudens and J. Papy (Leiden: Brill, forthcoming).
- Harris, James. *Hume. An Intellectual Biography* (Cambridge: Cambridge University Press, 2015).

- Haskins, Ekaterina. "Endoxa, Epistemological Optimism, and Aristotle's Rhetorical Project." *Philosophy and Rhetoric* 37 (2004): 1-20.
- Heider, Daniel, ed. *Cognitive Psychology in Early Jesuit Scholasticism* (Neunkirchen-Seelscheid: Editiones scholasticae, 2016).
- Heitz, Raymond. "Les Jesuites et l'Aufklärung en Baviere." In *Recherches sur le monde germanique*. Edited by M. Grimberg, 331-349. (Paris: Presses de l'Université de Paris Sorbonne, 2003).
- Hellyer, Marcus. *Catholic Physics. Jesuit Natural Philosophy in Early Modern Germany* (Notre Dame: University of Notre Dame Press, 2005).
- Hengst, Karl. *Jesuiten an Universitäten und Jesuitenuniversitäten* (Paderborn: F. Schöningh, 1981).
- Henshall, Nicolas. *The Myth of Absolutism. Change and Continuity in Early Modern European Monarchy* (London: Longman, 1992).
- Hersche, Peter. *Muße und Verschwendung. Europäische Gesellschaft und Kultur im Barockzeitalter*. Vol. 2 (Freiburg: Herder, 2006).
- Hill, Benjamin and Hendrik Lagerlund, eds. *The Philosophy of Francisco Suárez* (Oxford: Oxford University Press, 2012).
- Hofmann, Rudolf. *Die Gewissenslehre des Walter von Brügge O.F.M. und die Entwicklung der Gewissenslehre in der Hochscholastik* (Münster: Aschendorff, 1941).
- Honnefelder, Ludger. *Woher kommen wir? Ursprünge der Moderne im Denken des Mittelalters* (Darmstadt: Wissenschaftliche Buchgesellschaft, 2008).
- Höpfl, Harro. *Jesuit Political Thought* (Cambridge: Cambridge University Press, 2004).
- Horst, Ulrich. *Papst, Konzil, Unfehlbarkeit* (Mainz: Matthias-Grünwald-Verlag, 1978).
- Howard, Peter. *Beyond the Written Word. Preaching and Theology in the Florence of Archbishop Antoninus 1427-1459* (Florence: L.S. Olschiki, 1995).
- Hsieh, Nien-He. "Is Incomparability a Problem for Anyone?" In *Economics and Philosophy* 23 (2007): 65-80.
- Huber, Franz. "Formal Representations of Belief." *Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version January 2016).
<https://plato.stanford.edu/entries/formal-belief/>.
- Huber, Franz and Christoph Schmidt-Petri. *Degrees of Belief* (Dordrecht: Springer, 2009).
- Hurtubise, Pierre. *La casuistique dans tous ses états* (Ottawa: Novalis, 2005).
- Ineichen, Robert. "Über die 'Kybeia' und die 'Arithmomantica' von Juan Caramuel y Lobkowitz." *Bull. Soc. Frib. Sci. Nat.* 87 (1998): 5-55.

- Ingham, Sean. "Disagreement and Epistemic Arguments for Democracy." *Politics, Philosophy and Economics* 12 (2013): 136-155.
- Irwin, Terence. *Aristotle's First Principles* (Oxford: Clarendon Press, 1990).
- Jami, Catherine. *The Emperor's New Mathematics. Western Learning and Imperial Authority During the Kangxi Reign (1662-1722)* (Oxford: Oxford University Press, 2012).
- Jansen, Bernhard. *Die Pflege der Philosophie im Jesuitenorden während des 17./18. Jhs.* (Fulda: Parzeller, 1938).
- Jaynes, Edwin. *Probability Theory. The Logic of Science* (Cambridge: Cambridge University Press, 2003).
- Jeske, Claire-Marie. *Letras profanas und letras divinas im Widerstreit* (Frankfurt/Main: Vervuert, 2006).
- Jones, Frederick. *Alphonsus de Liguori* (Dublin: Gill and Macmillan, 1992).
- Jonsen, Albert, and Stephen Toulmin. *The Abuse of Casuistry* (Berkeley: University of California Press, 1988).
- Judson, Lindsay. "Chance and 'Always or For the Most Part' in Aristotle." In *Aristotle's Physics. A Collection of Essays*. Edited by L. Judson, 73-99. (Oxford: Clarendon, 1991).
- Kaluza, Zenon. *Les querelles doctrinales à Paris. Nominalistes et realistes aux confins du XIVe et du Xve siècles* (Bergamo: P. Lubrina, 1988).
- Kantola, Ilkka. *Probability and Moral Uncertainty in Late Medieval and Early Modern Times* (Helsinki: Luther-Agricola-Society, 1994).
- Kaufmann, Matthias, and Alexander Aichele, eds. *A Companion to Luis de Molina* (Leiden: Brill, 2014).
- Keenan, James. "John Mair's Moral Theology and its Reception in the 16th Century." In Slotemaker and Witt (2015): 194-220.
- Keijzer, Nico. *Military Obedience* (Alphen a.d. Rijn: Sihthoff & Noordhoff, 1978).
- Kennedy, Rick. *A History of Reasonableness. Testimony and Authority in the Art of Thinking* (Rochester: Rochester University Press, 2004).
- Kent, Dale. *Cosimo de' Medici and the Florentine Renaissance* (New Haven: Yale University Press, 2000).
- Kessler, Eckhardt, C. Schmitt and C. Lohr, eds. *Aristotelismus und Renaissance* (Wiesbaden: O. Harrassowitz, 1988).
- Kirk, Kenneth. *Conscience and Its Problems* (London: Longmans, 1927).
- Kittsteiner, Heinz. *Die Entstehung des modernen Gewissens* (Frankfurt/M.: Suhrkamp, 1995).

- Klein, Lawrence. *Shaftesbury and the Culture of Politeness* (Cambridge: Cambridge University Press, 1994).
- Knebel, Sven. *Wille, Würfel und Wahrscheinlichkeit* (Hamburg: Felix Meiner Verlag, 2000).
- Knebel, Sven. "Pietro Sforza Pallavicino's Quest for Principles of Induction." *The Monist* 84 (2001): 502-519.
- Knebel, Sven. "Wahrscheinlichkeit, III. Scholastik." In *Historisches Wörterbuch der Philosophie*, vol. 12. Edited by J. Ritter et al., 252-65. (Darmstadt: Wiss. Buchgesellschaft, 2004).
- Knebel, Sven. "Rodrigo de Arriaga (1529-1667) und die fallibilistische Theorie der Katholischen Glaubensgewissheit." In *Unsicheres Wissen*. Edited by C. Spoerhase, D. Werle and M. Wild, 317-338. (Berlin: De Gruyter, 2009).
- Knebel, Sven. *Suarezismus. Erkenntnistheoretisches aus dem Nachlass des Jesuitengenerals Tirso González de Santalla* (Amsterdam: John Benjamins Publishing, 2011).
- Knebel, Sven. "Puella est domina sui corporis. Sexuelle Selbstbestimmung in der Theologie um 1600." *Freiburger Zeitschrift für Philosophie und Theologie* 61 (2014): 141-179.
- Knobloch, Eberhard. "Renaissance Combinatorics." In *Combinatorics, Ancient and Modern*. Edited by R. Wilson, and J. Watkins, 123-146. (Oxford: Oxford University Press, 2013).
- Köchli, Ulrich. *Urban VIII. und die Barberini* (Stuttgart: Hiersemann, 2017).
- Kochuthara, Shaji. *The Concept of Sexual Pleasure in the Catholic Moral Tradition* (Rome: Gregorian Biblical Bookshop, 2007).
- Körner, Bernhard. *Melchior Canos De locis theologicis. Ein Beitrag zur theologischen Erkenntnistheorie* (Graz: Moser, 1994).
- Kortum, Hans. *Charles Perrault und Nicolas Boileau* (Berlin: Rütten & Loening, 1966).
- Kostroun, Daniella. *Feminism, Absolutism, and Jansenism. Louis XIV and the Port-Royal Nuns* (Cambridge: Cambridge University Press, 2011).
- Kraut, Richard. "How to Justify Ethical Propositions. Aristotle's Method." In *The Blackwell Guide to Aristotle's Nicomachean Ethics*. Edited by R. Kraut, 76-95. (Oxford: Blackwell, 2006).
- Kraye, Jill, ed. *Cambridge Companion to Renaissance Humanism* (Cambridge: Cambridge University Press, 1996).
- Kühn, Simone, and Marcel Brass. "Retrospective Construction of the Judgement of Free Choice." *Consciousness and Cognition* 18 (2009): 12-21.

- Kusch, Martin. *Knowledge by Agreement* (Oxford: Oxford University Press, 2002).
- Lang, Albert. *Die Wege der Glaubensbegründung bei den Scholastikern des 14. Jahrhunderts* (Münster: Aschendorffsche Verlagsbuchhandlung, 1930).
- Lang, Albert. *Die Loci Theologici des Melchior Cano und die Methode des dogmatischen Beweises* (Hildesheim: Gerstenberg, 1974).
- Langston, Douglas. "Medieval Theories of Conscience." *Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version July 2015). <http://plato.stanford.edu/entries/conscience-medieval/>
- Lavenia, Vincenzo. *L'infamia e il perdono. Tributi, pene e confessione nella teologia morale della prima età moderna* (Bologna: Il Mulino, 2004).
- Lavenia, Vincenzo. *Fraus et Cautela. Théologie morale et fiscalité au début des temps modernes*. In Boarini (2009): 43-58.
- Lecler, Joseph. *Toleration and the Reformation* (New York: Association Press, 1960).
- Le Guern, Michel. *Pascal, Arnauld et les casuists*. In Boarini (2009): 115-122.
- Lehner, Ulrich. *Enlightened Monks* (Oxford: Oxford University Press, 2011).
- Lehner, Ulrich. *The Catholic Enlightenment* (Oxford: Oxford University Press, 2016).
- Leinsle, Ulrich. *Introduction to Scholastic Theology* (Washington, D. C.: The Catholic University of America Press, 2010).
- Leites, Edmund, ed. *Conscience and Casuistry in Early Modern Europe* (Cambridge: Cambridge University Press, 1988).
- Levine, Joseph. *The Battle of the Books* (Ithaca: Cornell University Press, 1994).
- Levy, Evonne. *Propaganda and the Jesuit Baroque* (Berkeley: University of California Press, 2004).
- Lines, David. *Aristotle's Ethics in the Italian Renaissance* (Leiden: Brill, 2002).
- List, Christian, and Robert Goodin. "Epistemic Democracy. Generalizing the Condorcet Jury Theorem." *Journal of Political Philosophy* 9 (2001): 277-306.
- List, Christian, and Philip Pettit. "Aggregating Sets of Judgments: An Impossibility Result." *Economics and Philosophy* 18 (2002): 89-110.
- Lockhart, Ted. *Moral Uncertainty and Its Consequences* (Oxford: Oxford University Press, 2000).
- Lohse, Bernhard. "Conscience and Authority in Luther." In *Luther and the Dawn of the Modern Era*. Edited by H. Oberman, 158-183. (Leiden: Brill, 1974).

- Lombraña, Juan. *Juan Caramuel – vida y obra* (Oviedo: Pentalfa Ed., 1989).
- Lottin, Odon. “Le tutorisme du treizième siècle.” *Recherches de théologie ancienne et médiévale* 5 (1933): 292-301.
- Lottin, Odon. *Psychologie et morale aux XIIe et XIIIe siècles*. Vol. 2 (Leuven: J. Duculot, 1948).
- Lotz-Heumann, Ute. “Confessionalization.” In Bamji et al. (2013), 33-54.
- Louthan, Howard. *Converting Bohemia. Force and Persuasion in the Catholic Reformation* (Cambridge: Cambridge University Press, 2009).
- Lozano Navarro, Julián. *Tomás Sánchez* (Granada: Comares, 2000).
- Luce, Duncan, and Howard, Raiffa. *Games and Decisions* (New York: Wiley, 1957).
- Luiten van Zanden, Jan. *The Long Road to the Industrial Revolution* (Leiden: Brill, 2009).
- Lukács, Ladislaus. *Monumenta paedagogica Societatis Iesu. V: Ratio studiorum. 1586, 1591-92, 1599* (Rome: Inst. Historicum Societatis Iesu, 1986).
- Lukács, Ladislaus. *A History of the Jesuit Ratio Studiorum*. In *Church, Culture, & Curriculum. Theology and Mathematics in the Jesuit Ratio Studiorum*. Edited by L. Lukacs and G. Cosentino, 17-46. (Philadelphia: St. Joseph’s University Press, 1999).
- Lutz, Christopher. *Tradition in the Ethics of Alasdair MacIntyre* (Lanham: Lexington, 2004).
- Lynch, Joseph. *Simoniack Entry into Religious Life from 1000 to 1260* (Columbus: Ohio State University Press, 1976).
- Mack, Peter. *Renaissance Argument. Valla and Agricola in the Traditions of Rhetoric and Dialectic* (Leiden: Brill, 1993).
- McGrath, Sarah. “Moral Disagreement and Moral Expertise”. In: *Oxford Studies in Metaethics III*. Edited by R. Shafer-Landau, 87-105. (Oxford: Oxford University Press, 2008).
- MacIntyre, Alasdair. *Three Rival Versions of Moral Inquiry* (Notre Dame, Ind.: University of Notre Dame Press, 1990).
- McLaughlin, Mary. “Paris Masters of the Thirteenth and Fourteenth Centuries and Ideas of Intellectual Freedom.” *Church History* 24 (1955): 195-211
- Maclean, Ian. *Interpretation and Meaning in the Renaissance. The Case of Law* (Cambridge: Cambridge University Press, 1992).
- Maclean, Ian. *Logic, Signs and Nature in the Renaissance. The Case of Learned Medicine* (Cambridge: Cambridge University Press, 2001).

- Maclean, Ian. "The 'Sceptical Crisis' Reconsidered. Galen, Rational Medicine and the *libertas philosophandi*." *Early Science and Medicine* 11 (2006): 247-274.
- MacNiven, Don. *Moral Expertise* (London: Routledge, 1990).
- Maher, Patrick. *Betting on Theories* (Cambridge: Cambridge University Press, 1993).
- Mahoney, John. *The Making of Moral Theology* (Oxford: Clarendon Press, 1987).
- Maia Neto, José, G. Paganini and J. C. Laursen, eds. *Skepticism in the Modern Age* (Leiden: Brill, 2009).
- Mann, Nicholas. "The Origins of Humanism." In Kraye (1996): 1-19.
- Margiotta, Giacinto. *Le origini Italiane de la 'Querelle des anciens et des modernes'* (Rome: Editrice Studium, 1953).
- Marshall, Alan. *Intelligence and Espionage in the Reign of Charles II* (Cambridge: Cambridge University Press, 1994).
- Martin, Lynn. *The Jesuit Mind. The Mentality of an Elite in Early Modern France* (Ithaca: Cornell University Press, 1988).
- Martin, Craig. *Subverting Aristotle. Religion, History, and Philosophy in Early Modern Science* (Baltimore: Johns Hopkins University Press, 2014).
- Maryks, Robert. *Saint Cicero and the Jesuits. The Influence of the Liberal Arts on the Adoption of Moral Probabilism* (Aldershot: Ashgate, 2008).
- Mayer, Christoph. *Institutionelle Mechanismen der Kanonbildung in der Académie française. Die Querelle des anciens et des modernes im Frankreich des 17. Jahrhunderts* (Frankfurt: Peter Lang, 2012).
- Mayer, Thomas. *The Roman Inquisition. Trying Galileo* (Philadelphia: University of Pennsylvania Press, 2015).
- McAdoo, Henry. *The Structure of Caroline Moral Theology* (London: Lingmans, Green, 1949).
- McCool, Gerald. *From Unity to Pluralism. The Internal Evolution of Thomism* (New York: Fordham University Press, 1989).
- McGuire, Brian. *Jean Gerson and the Last Medieval Reformation* (Pennsylvania: Pennsylvania State University Press, 2005).
- McMahon, Christopher. *Reasonable Disagreement. A Theory of Political Morality* (Cambridge: Cambridge University Press, 2009).
- McManners, John. *Church and Society in Eighteenth Century France. Vol. 2* (Oxford: Clarendon Press, 1998).
- Meier-Oeser, Stephan. *Die Spur des Zeichens. Das Zeichen und seine Funktion in der Philosophie des Mittelalters und der frühen Neuzeit* (Berlin: De Gruyter, 1997).

- Mele, Alfred. *Autonomous Agents. From Self-Control to Autonomy* (New York: Oxford University Press, 1995).
- Mecke, Christoph-Eric. *Begriff und System des Rechts bei G. F. Puchta* (Göttingen: V&R unipress, 2009).
- Menning, Carol. *Charity and State in Late Renaissance Italy. The Monte di Pietà of Florence* (Ithaca: Cornell University Press, 1993).
- Mercer, Christia. "The Vitality and Importance of Early Modern Aristotelianism." In *The Rise of Modern Philosophy*. Edited by T. Sorell, 33-69. (Oxford: Clarendon Press, 1993).
- Merton, Robert. *On the Shoulders of Giants* (New York: Harcourt & Brace, 1965).
- Michael, Bernd. *Johannes Buridan*. Vol. 2 (Berlin: Diss. Freie Universität, 1985).
- Michalski, Konstanty. *La philosophie au XIVe siècle*. Edited by K. Flasch (Frankfurt/M.: Minerva, 1969).
- Michaud-Quantin, Pierre. *Sommes de casuistique et manuels de confession au moyen-âge, XII-XVI-siècles* (Louvain: Nauwelaerts, 1962).
- Miethke, Jürgen. "Autorität I." In *Theologische Realenzyklopädie*, vol. 5, 17-32. (Berlin: W. de Gruyter, 1980).
- Minamiki, George. *The Chinese Rites Controversy from Its Beginning to Modern Times* (Chicago: Loyola University Press, 1985).
- Mochi Onori, Lorenza and Arcangeli, Luciano eds. *I Barberini e la cultura europea del Seicento* (Roma: De Luca, 2007).
- Morçay, Raoul. *Saint Antonin* (Paris: Gabalda, 1914).
- Mostaccio, Silvia. *Early Modern Jesuits between Obedience and Conscience during the Generalate of Claudio Acquaviva (1581–1615)* (Farnham: Ashgate, 2014).
- Mout, Nicole. *Peace without concord. Religious toleration in theory and practice*. In *Cambridge History of Christianity*, Vol. 6. Edited by R. Po-chia Hsia, 227-243. (Cambridge: Cambridge University Press, 2007).
- Müller, Michael. *Die Entwicklung des höheren Bildungswesens der französischen Jesuiten im 18. Jahrhundert bis zur Aufklärung* (Frankfurt/M.: Peter Lang, 2000).
- Mueller, Reinhold, *The Venetian Money Market. Banks, Panics, and the Public Debt, 1200-1500* (Baltimore: John Hopkins University Press, 1997).
- Mullett, Michael. *The Catholic Reformation* (London: Routledge, 1999).
- Mungello, David, ed. *The Chinese Rites Controversy* (Nettetal: Steyler, 1994).
- Murphy, James. *Rhetoric in the Middle Ages* (Berkeley: University of California Press, 1981).

- Murray, Alexander. "Counselling in Medieval Confession." In *Handling Sin: Confession in the Middle Ages*. Edited by P. Biller and A. Minnis, 63-77. (Woodbridge: Boydell Press, 1998).
- Murray, Alexander. *Conscience and Authority in the Medieval Church* (Oxford: Oxford University Press, 2015).
- Myers, David: *'Poor, Sinning Folk'. Confession and Conscience in Counter-Reformation Germany* (Ithaca: Cornell University Press, 1996).
- Nadler, Steven, ed. *The Cambridge Companion to Malebranche* (Cambridge: Cambridge University Press, 2000).
- Nauta, Lodi. *In Defense of Common Sense. Lorenzo Valla's Humanist Critique of Scholastic Philosophy* (Cambridge/Mass.: Harvard University Press, 2009).
- Neveu, Bruno. *L'erreur et son juge. Remarques sur les censures doctrinales à l'époque moderne* (Napoli: Bibliopolis, 1993).
- Neveu, Bruno. *Èrudition et religion aux XVIIe et XVIIIe siècles* (Paris: Albin Michel, 1994).
- Newman, Lex. "Descartes on the Will in Judgment." In *A Companion to Descartes*. Edited by J. Broughton and J. Carriero, 334-352. (Oxford: Blackwell, 2008).
- Niederbacher, Bruno. *Glaube als Tugend bei Thomas von Aquin* (Stuttgart: Kohlhammer, 2004).
- Niemann, Franz-Josef. "Zur Frühgeschichte des Begriffs 'Fundamentaltheologie'." *Münchener Theologische Zeitschrift* 46 (1995): 247-260.
- Noonan, John. *The Scholastic Analysis of Usury* (Cambridge/Mass.: Harvard University Press, 1957).
- Northeast, Catherine. *The Parisian Jesuits and the Enlightenment 1700–1762* (Oxford: Voltaire Foundation, 1991).
- Novotny, Daniel. "In Defense of Baroque Scholasticism." *Studia Neoaristotelica* 6 (2009): 209-232.
- Oberman, Heiko. *Masters of the Reformation* (Cambridge: Cambridge University Press, 1981).
- Ocaña García, Marcelino. *Molinismo y libertad* (Córdoba: Obra Social Y Cultural Cajasur, 2000).
- Olivares, Estanilaso SJ. "Juan de Lugo (1583-1660). Datos biográficos, sus escritos, estudios sobre su doctrina y bibliografía." *Archivo Teológico Granadino* 47 (Granada: 1984): 5-129.

- O'Malley, John et al., eds. *The Jesuits. Cultures, Sciences, and the Arts 1540-1773* (Toronto: University of Toronto Press, 1999).
- O'Malley, John, G. Bailey, S. Harris and T. Kennedy, eds. *Trent and all that* (Cambridge/Mass.: Harvard University Press, 2000).
- O'Malley, John, G. Bailey, S. Harris and T. Kennedy, eds. *The Jesuits II. Cultures, Sciences, and the Arts 1540-1773* (Toronto: University of Toronto Press, 2006).
- Orlandi, Stefano. *S. Antonino. Arcivescovo di Firenze*. Vol. 2 (Florence: Il Rosario, 1959).
- Otte, Gerhard. "Der Probabilismus. Eine Theorie auf der Grenze zwischen Theologie und Jurisprudenz." In *La seconda scolastica nella formazione del diritto privato modern*. Edited by P. Grossi, 283-302. (Mailand: Giuffrè, 1973).
- Ott, Hugo. "Zur Wirtschaftsethik des Konrad Summenhart." *Vierteljahresschrift für Sozial und Wirtschaftsgeschichte* 53 (1966): 1-27.
- Paganini, Gianni, ed. *The Return of Scepticism. From Hobbes and Descartes to Bayle* (Dordrecht: Kluwer, 2003).
- Paganini, Gianni and José Maia Neto, eds. *Renaissance Scepticisms* (Dordrecht: Springer, 2009).
- Parish, Richard. *Pascal's Lettres Provinciales. A Study in Polemic* (Oxford: Oxford University Press, 1991).
- Parry, Richard. "Episteme and Techne." *Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version June 2014).
<http://plato.stanford.edu/entries/episteme-techne/>.
- Pasnau, Robert. "Medieval Social Epistemology. Scientia for Mere Mortals." *Episteme* 7 (2010): 23-41.
- Pasnau, Robert. *Metaphysical Themes 1274–1671* (Oxford: Oxford University Press, 2011).
- Pasnau, Robert. *After Certainty. A History of Our Epistemic Ideals and Illusions* (Oxford: Oxford University Press, 2017).
- Pasternack, Lawrence. "Kant on Opinion: Assent, Hypothesis, and the Norms of General Applied Logic." *Kant-Studien* 105 (2014): 41–82.
- Pastine, Dino. *Juan Caramuel* (Florence: La Nuova Italia, 1975).
- Pastor, Ludwig von. *Geschichte der Päpste. Bd. 13/2. Urban VIII (1623-1644)*. (Freiburg: Herder, 1929).
- Perinetti, Dario. "Hume at La Flèche." *Journal of the History of Philosophy* 56 (2018): 54-74.

- Perler, Dominik. "Wie ist ein globaler Zweifel möglich? Zu den Voraussetzungen des frühneuzeitlichen Außenwelt-Skeptizismus." *Zeitschrift für Philosophische Forschung* 57 (2003): 481-512.
- Perler, Dominik. "Was There a 'Pyrrhonian Crisis' in Early Modern Philosophy? A Critical Notice of Richard H. Popkin." *Archiv für Geschichte der Philosophie* 86 (2004): 209-220.
- Perler, Dominik. *Zweifel und Gewißheit. Skeptische Debatten im Mittelalter* (Frankfurt/M.: Klostermann, 2006).
- Perler, Dominik. "Introduction." In *Transformations of the Soul. Aristotelian Psychology 1250–1650*. Edited by D. Perler, 1-9. (Leiden: Brill, 2008).
- Peterson, David. *Archbishop Antoninus, Florence and the Church in the Earlier Fifteenth Century* (Ithaca: Cornell University Press, 1985).
- Petrocchi, Massimo. *Il problema del lassismo nel secolo XVII* (Rome: Ed. di storia e letteratura, 1953).
- Pettit, Philip. "When to Defer to Majority Testimony — and When Not." *Analysis* 66 (2006): 179-187.
- Pinckaers, Servais. *The Sources of Christian Ethics* (Edinburgh: Clark, 1995).
- Pintard, René. *Le Libertinage érudit dans la première moitié du XVIIe siècle* (Geneva: Slatkine, 1983).
- Pissavino, Paolo. *Le meraviglie del probabile: Juan Caramuel 1606-1682. Atti del convegno internazionale di studi Vigevano 29-31 ottobre 1982* (Vigevano: Comune di Vigevano, 1990).
- Po-Chia Hsia, Ronnie. *The World of Catholic Renewal 1540-1770* (Cambridge: Cambridge University Press, 2005).
- Pocock, J. G. A. "The Concept of a Language and the métier d'historien." In *Languages of Political Theory in Early Modern Europe*. Edited by A. Pagden, 19-38. (Cambridge: Cambridge University Press, 1990).
- Popkin, Richard. *The History of Scepticism from Erasmus to Spinoza* (Berkeley: University of California Press, 1979).
- Popkin, Richard. *The History of Scepticism from Savonarola to Bayle* (Oxford: Oxford University Press, 2003).
- Potts, Timothy. *Conscience in Medieval Philosophy* (Cambridge: Cambridge University Press, 1980).
- Precht-Nußbaum, Karin. *Zwischen Augsburg und Rom. Der Pollinger Augustiner-Chorherr Eusebius Amort (1692-1775)* (Paring: Augustiner-Chorherren-Verlag, 2007).
- Probst, Jacob. *Geschichte der Universität in Innsbruck* (Innsbruck: Wagner, 1869).
- Prosperi, Adriano. *Tribunali di coscienza* (Torino: Einaudi, 1996).

- Quantin, Jean-Louis. *Le catholicisme classique et les Pères de l'Église. Un retour aux sources (1669-1713)* (Paris: Institut d'Études Augustiniennes, 1999).
- Quantin, Jean-Louis. "Le Saint-Office et le probabilisme (1677-1679)." *Mélanges de l'École Française de Rome* 114 (2002): 875-960.
- Quantin, Jean-Louis. "Catholic Moral Theology 1550–1800." In *The Oxford Handbook of Early Modern Theology, 1600–1800*. Edited by U. Lehner, R. Muller, and A. Roeber, 119-134. (Oxford: Oxford University Press, 2016).
- Quinto, Riccardo. *Scholastica. Storia di un concetto* (Padova: Il poligrafo, 2001).
- Radner, Ephraim. "Early Modern Jansenism." In *The Oxford Handbook of Early Modern Theology, 1600–1800*. Edited by U. Lehner, R. Muller, and A. Roeber, 436-450. (Oxford: Oxford University Press, 2016).
- Ramelow, Tilman. *Gott, Freiheit und Weltenwahl. Die Metaphysik der Willensfreiheit zwischen A. Pérez und Leibniz* (Leiden: Brill, 1997).
- Regoliosi, Mariangela, ed. *Lorenzo Valla. La riforma della lingua e della logica*. Vol. 2 (Florence: Polistampa, 2010).
- Reinhardt, Nicole. *Voices of Conscience. Royal Confessors and Political Counsel in Seventeenth-Century Spain and France* (Oxford: Oxford University Press, 2016).
- Reinhardt, Volker. *Kardinal Scipione Borghese* (Tübingen: Niemeyer, 1984).
- Reinhardt, Volker. *Im Schatten von Sankt Peter. Die Geschichte des barocken Rom* (Darmstadt: Primus, 2011).
- Reinhold, Julius. "Zum Streit um die Moralsysteme des Probabilismus und Probabiliorismus bei den sächsischen Franziskanern im 18. Jahrhundert." *Franziskanische Studien* 21 (1934): 109-124.
- Renaudet, Augustin. *Préréforme et humanisme à Paris pendant les premières guerres d'Italie, 1494-1517* (Geneva: Slatkine, 1981).
- Renon, Luis. "Aristotle's Endoxa and Plausible Argumentation." *Argumentation*, 12 (1998): 95-113.
- Rexroth, Frank. "Systemvertrauen und Expertenskepsis. Die Utopie vom maßgeschneiderten Wissen in den Kulturen des 12. bis 16. Jahrhunderts." In: *Wissen, maßgeschneidert*. Edited by B. Reich, F. Rexroth, M. Roick, 12-44. (Berlin: De Gruyter, 2012).
- Rietbergen, Peter. *Power and Religion in Baroque Rome. Barberini Cultural Policies* (Leiden: Brill, 2006).

- Rogers, G. A. J. "Zur Entstehungsgeschichte des 'Essay Concerning Human Understanding'." In *John Locke – Essay über den menschlichen Verstand*. Edited by U. Thiel, 11-38. (Berlin: Akademie, 1997).
- Romano, Antonella. *La contre-réforme mathématique. Constitution et diffusion d'une culture mathématique jésuite à la Renaissance 1540-1640* (Rome: École française de Rome, 1999).
- Rosa, Mario. "Alessandro VII, papa." *Dizionario Biografico degli Italiani*. Vol. 2. Edited by A. Ghisalberti (Rome: Istituto della Enciclopedia italiana, 1960).
- Rosemann, Philipp. *The Story of a Great Medieval Book. Peter Lombard's Sentences* (Toronto: University of Toronto Press, 2007).
- Rosoni, Isabella. *Quae singula non prosunt collecta iuvant. La teoria della prova indiziaria nell'età medievale e moderna* (Milan: Giuffrè, 1995).
- Ross, Sarah. *The Birth of Feminism. Women as Intellect in Renaissance Italy and England* (Cambridge/Mass.: Harvard University Press, 2009).
- Rubinelli, Sarah. *Ars Topica. The Classical Technique of Constructing Arguments from Aristotle to Cicero* (New York: Springer, 2009).
- Ruffini Avondo, Edoardo. "Il possesso nella teologia morale post-tridentina." *Rivista di storia del diritto italiano* 2 (1929): 63-98.
- Russell, Frederick. *The Just War in the Middle Ages* (Cambridge: Cambridge University Press, 1977).
- Salas, Victor and Roberto Fastiggi, eds. *A Companion to Francisco Suarez* (Leiden: Brill, 2014).
- Sayre-McCord, Geoffrey. "Moral Realism." *Stanford Encyclopedia of Philosophy*. Edited by E. N. Zalta (Version February 2015). <https://plato.stanford.edu/entries/moral-realism/>.
- Saxlová, Tereza, and Stanislav Sousedík, eds. *Rodrigo de Arriaga* (Prague: Karolinum, 1998).
- Scaglione, Aldo. *The Liberal Arts and the Jesuit College System* (Amsterdam: John Benjamins Publishing, 1986).
- Scanlon, Thomas. *What We Owe to Each Other* (Cambridge/Mass.: Belknap, 1998).
- Schick, Frederic. "Dutch Bookies and Money Pumps." *Journal of Philosophy* 83 (1986): 112-119.
- Schiffman, Zachary. *On the Threshold of Modernity, Relativism in the French Renaissance* (Baltimore: Johns Hopkins University Press, 1991).
- Schmitt, Albert. *Zur Geschichte des Probabilismus* (Innsbruck: Rauch, 1904).
- Schmitt, Charles. *Cicero Scepticus* (The Hague: Nijhoff, 1972).

- Schmitt, Charles. *Aristotle and the Renaissance* (Cambridge/Mass.: Harvard University Press, 1983).
- Schmutz, Jacob. "Caramuel y Lobkowitz, Juan." In *Biographisch-Bibliographisches Kirchenlexikon*, Vol. 17 (Herzberg: Verlag Traugott Bautz, 2000).
- Schmutz, Jacob. "Les innovations conceptuelles de la métaphysique espagnole post-suarézienne: les status rerum selon Antonio Pérez et Sebastián Izquierdo." *Quaestio* 9 (2009): 61-99.
- Schmutz, Jacob. "Medieval Philosophy after the Middle Ages." In *The Oxford Handbook of Medieval Philosophy*. Edited by J. Marenbon, 245-270. (Oxford: Oxford University Press, 2012).
- Schneewind, Jerome. *The Invention of Autonomy* (Cambridge: Cambridge University Press, 1998).
- Schneider, Ivo. "Why do We Find the Origin of a Calculus of Probabilities in the Seventeenth Century?" In *Pisa Conference Proceedings*, vol. 2.. Edited by J. Hintikka et al., 3-24. (Dordrecht: Springer, 1980).
- Schneider, Ivo. "Leibniz on the Probable." In *Mathematical Perspectives*. Edited by J. Dauben, 201-219. (New York: Academic Press, 1981).
- Schneider, Ivo. "The Market Place and Games of Chance in the Fifteenth and Sixteenth Centuries." In *Mathematics from Manuscript to Print 1300-1600*. Edited by C. Hay, 220-235. (Oxford: Clarendon Press, 1988).
- Schönberger, Rolf. *Was ist Scholastik?* (Hildesheim: Bernward, 1991).
- Schuppener, Georg, and Karel Macák. *Prager Jesuiten-Mathematik von 1600-1740* (Leipzig: Leipziger Universitätsverlag, 2002).
- Schuessler, Rudolf. "Hadrian VI. und das Recht auf Verweigerung zweifelhaft rechtmäßiger Befehle." In *Suche nach Frieden – Politische Ethik in der frühen Neuzeit*. Edited by N. Brieskorn and M. Riedenauer, 41-62. (Stuttgart: Kohlhammer, 2000).
- Schuessler, Rudolf. *Moral im Zweifel, Band 1: Die scholastische Theorie des Entscheidens unter moralischer Unsicherheit* (Paderborn: Mentis, 2003).
- Schuessler, Rudolf. "Rules of Conscience and the Case of Galileo." In *Contexts of Conscience in Early Modern Europe 1500-1700*. Edited by H. Braun and E. Vallance, 100-115. (Houndmills: Palgrave Macmillan, 2004).
- Schuessler, Rudolf. "On the Anatomy of Probabilism." In *Moral Philosophy on the Threshold of Modernity*. Edited by J. Kraye and R. Saarinen, 91-114. (Dordrecht: Springer, 2005).
- Schuessler, Rudolf. *Moral im Zweifel, Band 2: Die Herausforderung des Probabilismus*. (Paderborn: Mentis, 2006) (=2006 a).

- Schuessler, Rudolf. "Moral Self-Ownership and *ius possessionis* in Late Scholastics." In *Transformations in Medieval and Early-Modern Rights Discourse*. Edited by V. Mäkinen and P. Korkman, 149-171. (Dordrecht: Springer, 2006) (=2006b).
- Schuessler, Rudolf. "Der Wille zur Meinung. Ignacio de Camargo und Antonius Terillus zur Macht des Willens über das Fürwahrhalten." In *Unsicheres Wissen in der frühen Neuzeit*. Edited by C. Spoerhase, D. Werle and M. Wild, 339-364. (Berlin: De Gruyter, 2009) (=2009a).
- Schuessler, Rudolf. "Jean Gerson, Moral Certainty and the Renaissance of Ancient Scepticism." *Renaissance Studies* 23 (2009): 445-562 (=2009b).
- Schuessler, Rudolf. "Antoninus von Florenz als Ökonom – eine Verteidigung." In *I beni di questo mondo. Teorie etico-economiche nel laboratorio dell' Europa medievale, Fédération Internationale des Instituts d'Études Médiévales*. Edited by R. Lamberti and L. Sileo, 281-304. (Porto: Fédération Internationale des Instituts d'Études Médiévales, 2010).
- Schuessler, Rudolf. "Doxastischer Voluntarismus bei Thomas von Aquin." *Recherches de Théologie et Philosophie médiévales* 79 (2012): 75-107.
- Schuessler, Rudolf. "Descartes' Doxastic Voluntarism." *Archiv für Geschichte der Philosophie* 95 (2013): 148-177.
- Schuessler, Rudolf. "Scholastic Probability as Rational Assertability – The Rise of Theories of Reasonable Disagreement." *Archiv für Geschichte der Philosophie* 96 (2014): 202-231 (=2014a).
- Schuessler, Rudolf. "Probability in Medieval and Renaissance Philosophy." *Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version December 2014 = 2014 b).
<http://plato.stanford.edu/entries/probability-medieval-renaissance/>.
- Schuessler, Rudolf. "Practical Ethics." In *The Cambridge History of Medieval Philosophy*, vol. 1. Edited by R. Pasnau (revised), 517-535. (Cambridge: Cambridge University Press, 2014) (=2014c)
- Schuessler, Rudolf. "Equi-Probability Prior to 1650." *Early Science and Medicine* 21 (2016): 54-74.
- Schuessler, Rudolf. "Conscience, Renaissance Understanding of." In *Encyclopedia of Renaissance Philosophy*. Edited by M. Sgarbi (New York: Springer, 2018). https://doi.org/10.1007/978-3-319-02848-4_602-1 (first online: 10 August 2018).
- Schuessler, Rudolf. "Casuistry and Probabilism." In *A Companion to the Spanish Scholastics*, Edited by H. Braun and E. de Bom (Leiden: Brill, forthcoming).

- Schütze, Sebastian. *Kardinal Maffeo Barberini und die Entstehung des römischen Hochbarock* (München: Hirmer, 2007).
- Schwartz, Daniel, ed. *Interpreting Suárez* (Cambridge: Cambridge University Press, 2012).
- Schwartz, Daniel. "Probabilism Reconsidered: Deference to Experts, Types of Uncertainty, and Medicines." *Journal of the History of Ideas* 75 (2014): 373-393.
- Schwartz, Daniel. *The Political Morality of the Late Scholastics* (Cambridge: Cambridge University Press, 2019).
- Selwyn, Jennifer. *A Paradise Inhabited by Devils. The Jesuits' Civilizing Mission in Early Modern Naples* (Aldershot: Ashgate, 2004).
- Selzner, Cyril. "Les forges des Philistines – la problématique d' un casuistique réformée en Angleterre." In Boarini (2009): 73-86.
- Serafini, Aldo. *La conquista dell'anima* (Torino: Einaudi, 2004).
- Serjeantson, Richard. "Testimony and Proof in Early-Modern England." *Studies in History and Philosophy of Science* 30 (1999): 195-236.
- Sgarbi, Marco. *Francisco Suárez and His Legacy* (Milano: Vita e Pensiero, 2010).
- Sgarbi, Marco. *The Aristotelian Tradition and the Rise of British Empiricism. Logic and Epistemology in the British Isles (1570-1689)* (Dordrecht: Springer Science & Business Media, 2013).
- Sgarbi, Marco. "Renaissance Aristotelianism and the Scientific Revolution." *Physis* 52 (2017): 329-345.
- Shafer, Glenn. *A Mathematical Theory of Evidence* (Princeton: Princeton University Press, 1976).
- Shafer, Glenn. "Non-Additive Probabilities in the Work of Bernoulli and Lambert." *Archive for History of Exact Sciences* 19 (1978): 309-370.
- Shapin, Steven. "A Scholar and a Gentleman. The Problematic Identity of the Scientific Practitioner in Early Modern England." *History of Science* 29 (1991): 279-327.
- Shapiro, Barbara. *Probability and Certainty in Seventeenth-Century England* (Princeton: Princeton University Press, 1983).
- Shea, William and Mariano Artigas. *Galileo in Rome* (Oxford: Oxford University Press, 2003).
- Shelford, April. *Transforming the Republic of Letters. Pierre-Daniel Huet and European Intellectual Life, 1650-1720* (Rochester: University Rochester Press, 2007).
- Shields, Christopher. *Aristotle* (London: Routledge, 2007).

- Siebert, Harald. "Kircher and His Critics. Censorial Practice and Pragmatic Disregard in the Society of Jesus." In Findlen (2004): 79-104.
- Skinner, Quentin. *Visions of Politics. Vol 1: Regarding Method* (Cambridge: Cambridge University Press, 2002).
- Slights, Camille. *The Casuistical Tradition in Shakespeare, Donne, Herbert and Milton* (Princeton: Princeton University Press, 1981).
- Slotemaker, John, and Jeffrey Witt, eds. *A Companion to the Theology of John Mair* (Leiden: Brill, 2015).
- Slotemaker, John, and Jeffrey Witt. *Robert Holcot* (Oxford: Oxford University Press, 2016).
- Smith, Gerald, ed. *Jesuit Thinkers of the Renaissance* (Milwaukee: Marquette University Press, 1939).
- Smith, Gerald. *Freedom in Molina* (Chicago: Loyola University Press, 1966).
- Sorensen, Roy. "Epistemic Paradoxes." *The Stanford Encyclopedia of Philosophy*. Edited by E. Zalta (Version September 2017).
<https://plato.stanford.edu/entries/epistemic-paradoxes/>.
- Sosa, Ernest. "The Epistemology of Disagreement." In *Social Epistemology*. Edited by A. Haddock, A. Miller and D. Pritchard, 278-296. (Oxford: Oxford University Press, 2010).
- Sousedik, Stanislav. *Philosophie der frühen Neuzeit in den böhmischen Ländern* (Stuttgart: Frommann-Holzboog, 2008).
- Spoerhase, Carlos, D. Werle and M. Wild, eds. *Unsicheres Wissen. Skeptizismus und Wahrscheinlichkeit 1550–1850* (Berlin: De Gruyter, 2009).
- Spranzi-Zuber, Marta. *The Art of Dialectic between Dialogue and Rhetoric* (Amsterdam: John Benjamins Publishing, 2011).
- Spufford, Peter. *Power and Profit. The Merchant in Medieval Europe* (London: Thames & Hudson, 2002).
- Stone, Harold. *Vico's Cultural History. The Production and Transmission of Ideas in Naples 1685-1750* (Leiden: Brill, 1997).
- Storey, Tessa. *Carnal Commerce in Counter-Reformation Rome* (Cambridge: Cambridge University Press, 2008).
- Strayer, Brian. *Suffering Saints. Jansenists and Convulsionnaires in France, 1640–1799* (Brighton: Sussex Academic Press, 2008).
- Sullivan, Francis. *Magisterium. Teaching Authority in the Catholic Church* (New York: Paulist Press, 1983).
- Sylla, Edith. "The Emergence of Mathematical Probability from the Perspective of the Leibniz-Jacob-Bernoulli Correspondence." *Perspectives on Science* 6 (1998): 41-76.

- Tavuzzi, Michael. *Prierias. The Life and Works of Silvestro Mazzolini da Prierio 1456–1527* (Durham: Duke University Press, 1997).
- Taylor, C. C. W. *Aristotle's Epistemology*. In *A Companion to Ancient Thought*, Vol. 1. Edited by S. Everson, 116-142. (Cambridge: Cambridge University Press, 1990).
- Tentler, Thomas. "The Summa for Confessors as an Instrument of Social Control." In *The Pursuit of Holiness in Late Medieval and Renaissance Religion*. Edited by C. Trinkaus and H. Oberman, 103-126. (Leiden: Brill, 1974).
- Tentler, Thomas. *Sin and Confession on the Eve of the Reformation* (Princeton: Princeton University Press, 1977).
- Ter Haar, Franz. *Das Dekret des Papstes Innozenz XI. über den Probabilismus* (Paderborn: Schöningh, 1904).
- Theiner, Johannes. *Die Entwicklung der Moraltheologie zur eigenständigen Disziplin* (Regensburg: Friedrich Pustet, 1970).
- Thijssen, Johannes. *Censure and Heresy at the University of Paris 1200-1400* (Philadelphia: University of Pennsylvania Press, 1998).
- Tierney, Brian *The Idea of Natural Rights* (Atlanta: Scholars Press, 1997).
- Todhunter, Isaac. *A History of the Mathematical Theory of Probability from the Time of Pascal to that of Laplace* (Cambridge: Macmillan, 1865).
- Trentman, John. "Scholasticism in the seventeenth century." In *The Cambridge History of Later Medieval Philosophy*. Edited by N. Kretzmann, 818-837. (Cambridge: Cambridge University Press, 1984).
- Trueman, Carl, and R. Scott Clark, eds. *Protestant Scholasticism. Essays in Reassessment* (Carlisle: Paternoster Press, 1999).
- Tully, James. "Governing Conduct." In Leites (1988): 12-71.
- Turrini, Miriam. *La coscienza e le leggi* (Bologna: Il Mulino, 1991).
- Tutino, Stefania. *Uncertainty in Post-Reformation Catholicism. A History of Probabilism* (Oxford: Oxford University Press, 2018).
- Van Asselt, Willem. *Introduction to Reformed Scholasticism* (Grand Rapids: Reformation Heritage Books, 2011).
- Van der Veldt, Petrus. *Franz Neumayr SJ* (Amsterdam: APA-Holland University Press, 1992).
- Van Kley, Dale. *The Jansenists and the Expulsion of the Jesuits from France 1757–1765* (New Haven: Yale University Press, 1975).
- Varkemaa, Jussi. *Conrad Summenhart's Theory of Individual Rights* (Leiden: Brill, 2012).

- Vecchi, Alberto. *Correnti religiose nel sei-settecento Veneto* (Venice: Insituto per la collaborazione culturale, 1962).
- Vogel, Jonathan. "Are There Counterexamples to the Closure Principle?" In *Doubting*. Edited by M. Roth and G. Ross, 13-28. (Dordrecht: Springer, 1990).
- Von Moos, Peter, "'Was allen oder den meisten oder den Sachkundigen richtig scheint.' Über das Fortleben des endoxon im Mittelalter." In *Historia Philosophiae Medii Aevi*. Edited by B. Mojsich and O. Pluta, 711-743. (Amsterdam: John Benjamins, 1991).
- Von Moos, Peter. "Die 'bloße' und die wahrheitsfähige Meinung im Mittelalter." In *Macht Wissen Wahrheit*. Edited by K. Hempfer and A. Traninger, 55-75. (Freiburg: Rombach, 2006).
- Waddell, Mark. *Jesuit Science and the End of Nature's Secrets* (Aldershot: Ashgate, 2015).
- Waldmann, Theodore. "Origins of the Legal Doctrine of Reasonable Doubt." *Journal of the History of Ideas* 20 (1959): 299-316.
- Ward, John. "The Medieval and Early Renaissance Study of Cicero's *De inventione* and the *Rhetorica ad Herennium*." In Cox and Ward (2006): 3-69.
- Weber, Alison. "Little Women. Counter-Reformation Misogyny." In *Counter Reformation*. Edited by D. Luebke, 143-162. (Oxford: Blackwell, 1999).
- Wei, Ian. *Intellectual Culture in Medieval Paris. Theologians and the University, c.1100–1330* (Cambridge: Cambridge University Press, 2012).
- Weisheipl, James, ed. *Albertus Magnus and the Sciences* (Toronto: Pontifical Institute of Mediaeval Studies, 1980).
- Werner, Karl. *Die Scholastik des späteren Mittelalters. Vol. 4* (Wien: W. Braumüller, 1887).
- Westman, Robert. *The Copernican Question* (Berkeley: University of California Press, 2011).
- Wheeler, Gregory. "A Review of the Lottery Paradox." In *Probability and Inference: Essays in Honour of Henry E. Kyburg*. Edited by W. Harper and G. Wheeler, 1-31. (London: College Publications, 2007).
- White, Kevin. *Hispanic Philosophy in the Age of Discovery* (Washington: The Catholic University Press of America, 1997).
- Whitman, James. *The Origins of Reasonable Doubt. Theological Roots of the Criminal Trial* (New Haven: Yale University Press, 2008).

- Williams, Bernard. "Deciding to Believe." In *Language, Belief and Metaphysics*. Edited by H. Kiefer and M. Munitz, 95-111. (Albany, New York: State University of New York Press, 1970).
- Winroth, Anders. *The Making of Gratian's Decretum* (Cambridge: Cambridge University Press, 2004).
- Winter, Michael. "Aristotle, hos epi to polu Relations, and a Demonstrative Science of Ethics." *Phronesis* 42 (1997): 163-189.
- Wohl, Victoria, ed. *Probabilities, Hypotheticals, and Counterfactuals in Ancient Greek Thought* (Cambridge: Cambridge University Press, 2014).
- Zimmermann, Albert, ed. *Antiqui und Moderni. Traditionsbewußtsein und Fortschrittsbewußtsein im späten Mittelalter* (Berlin: De Gruyter, 1974).
- Zimmerman, Michael. *Living with Uncertainty. The Moral Significance of Ignorance* (Cambridge: Cambridge University Press, 2008).

Index

- absolutism 103, 164, 475, 477
 Academic skepticism 198, 355, 388–92
 Accolti, Benedetto 303
accommodare 463
 Adrian Florensz of Utrecht 461
 Agricola, Rudolph 82–85
 Ailly, Pierre de 340
 Albert of Cologne 285, 303, 320
 aleatory contracts 517
 Alexander of Alessandria 504
 Alston, William 410
 Amort, Eusebius 166
 Angelis, Agostino de 145, 235–36
 anti-probabilism 14–16, 120, 144–48, 256–62, 306, 345, 424, 464–69, 508
antiqui 283, 287–93, 288, 296, 312
 Antonino of Florence 36, 63–65, 244–45, 305, 459
 Aristotelianism 170–73, 351, 432, 515
 Aristotle 40–41, 44, 49, 184–86, 194–202, 257–58, 258, 303, 358, 405, 503, 512
 Arnauld, Antoine 130, 140, 488
 Arriaga, Rodrigo de 192, 249
 Arsdekin, Richard 382, 398
 assent (*assensus*) 42, 52, 93–95, 406, 409, 420
 Assent Condition 348–49, 365
 Assertability Condition 347–50
 Augustine 129, 258, 304, 308, 313, 315, 349, 355, 390
 Augustinian Order 122, 123, 166, 185
 Augustinianism 389–90
 authority (*auctoritas*) 53, 86–88, 208, 242
 authority (*magisterium*) 54
 autonomy 450
 Avila, Juan Sanchez de 273
 Azor, Juan 137, 178, 216–20, 227, 239, 246–49, 250, 294–95, 461, 519
 Azpilcueta, Martín de 76, 211–15, 216, 227–29, 239, 273, 460
 Bacon, Roger 285
 Bañez, Domingo 123
 Barberini 127–29, 136, 320
 Bardi, Francesco 228, 250
 Baron, Vincent 311, 372, 376
 Bayesianism 339
 Bellarmino, Roberto 123, 238, 248
 Benedictine Order 124, 128, 189
 Berlin, Isaiah 455
 Bernard of Chartres 285
 Bernoulli, Jacob 329, 397, 492, 502
 betting problem, Salamanca 500
 Bianchi, Andrea 130–31, 140, 256, 324, 331, 344, 348–51, 411–12
 Boileau, Nicolas 317
 Bossuet, Jacques Bénigne 120, 159, 160, 313–15, 315, 317
 Bresser, Martin 193, 221–25, 240, 250, 263, 273, 295
 Busenbaum, Hermann 126, 188–90
 Cajetan *See* Vio, Thomas de
 Camargo, Ignacio de 360, 365
 Cano, Melchor 73, 85–91, 227, 272, 292–93
 Caramuel y Lobkowitz, Juan 91, 104, 128, 131, 132–36, 139–43, 149–56, 192, 197, 255–56, 291, 301–6, 311–16, 319, 324, 327, 361, 362, 369, 374, 392–400, 419, 488, 497–502, 524
 Cardano, Girolamo 80, 491
 Cardenas, Juan 153, 252–56, 264, 374–75, 398, 463, 524
 Caritat, Marie Jean Antoine Nicolas de *See* Marquis de Condorcet
 Casnedi, Carlo 163, 391, 505
 Castropalao, Fernando 250, 463
 casuistry 114, 125, 284–85
 Catholic moral theology 21–23, 102, 116, 125, 136–38, 155, 169, 187–90, 241, 312, 323–24, 345
 Catholic Reformation *See* Counter-Reformation
 certainty, moral (*certitudo moralis*) 59, 337
 certainty, probable (*certitudo probabilis*) 59
 Chigi, Fabio 393
 choice of opinion, criteria 207
 Cicero, Marcus Tullius 184–86
 classical authors 294–95
 closure, logical 381
 Collegio Romano 122, 178, 216, 340, 354, 379

- combinatorics 497, 507
 Comitoli, Paolo 123
 common opinion 225–30
comprobabilis 524
 Concina, Daniele 121–22, 158, 162, 196, 384, 390, 467, 483
 confessionalization 478
 confessor, absolution against his own opinion 458
 conscience (*conscientia*) 57–60
 Constant, Benjamin 455
 Cordoba, Antonio de 179, 234, 290
 Counter-Reformation 98, 104, 116–19, 240, 291–92, 477–82, 485
 Delumeau, Jean 447, 452
 Deman, Thomas 92, 120–22, 448
 Descartes, René 155, 265–68, 325, 388–89, 410–11
 Diana, Antonino 101, 126, 134, 187, 253, 296–300, 371, 463
 discursive rights 69
 Dominican Order 33, 36, 72, 91, 108, 120, 123, 139, 140, 185, 244, 305, 344
 doubt (*dubium*) 61–64
 doxastic voluntarism 20, 102, 403, 411, 418, 423–26, 431, 437–40, 456
 doxastic voluntarism, direct 441–43
 doxastic voluntarism, indirect 441–43
 doxastic voluntarism, probabilism 411–17
 Dr. Navarrus *See* Azpilcueta, Martín de
 Durandus of Saint Pourçain 305, 340
 dutch book, betting 500
 early modern/second scholasticism 73–75
 economic ethics 233, 299, 477
 Elizalde, Miguel de 141, 152, 156, 201, 259–62, 274–75, 326, 328, 332, 354–59, 360–63, 375–76, 382, 386–88, 415, 503, 513
 empirism 266
endoxon 47, 50–57, 172, 186, 194–202, 326, 334, 366
 Enlightenment thought 162–64
 epistemic democracy 276–77
 epistemic sufficiency 106–9, 405, 414, 433, 434, 436
 epistemology 324–26
 equi-probabilism 166
 Escobar y Mendoza, Antonio 126, 128, 133, 188, 253
 Esparza, Martín de 151, 196–98, 391, 421–22, 511
 expected value 518, 522, 528
 expert 20, 34, 49, 55, 90, 106, 125, 173, 188, 191, 204, 207, 228, 248, 264, 274, 357, 366, 458, 473, 487, 510
 expertocracy 26, 138, 204, 239, 240, 275, 332, 472
 extrinsicism 448, 469
 Fabri, Honoré 141, 150–54, 233, 238–39, 331–36
 Fagnani, Prospero 141, 144, 221–22, 224–25, 257–58, 310, 344, 350–52, 385, 464
 faith/conviction (*fides*) 40–42
 Fathers of the Church 284, 305, 307, 311–13, 313, 322
 Filguera, Emmanuel 374
 following (*sequi*) 45
 Franciscan Order 69, 122, 128
 Franklin, James 65, 443, 487
 freedom of choice 109, 152, 180, 395, 445, 483
 Galilei, Galileo 136, 417
 games of luck 80, 490, 517–20
 Gay, Jean-Pascal 158–60, 359, 365, 449
 Gerson, Jean 63–67, 106
 Giacon, Carlo 164
 Giannone, Pietro 322, 480
 Gisbert, Jean 455
 Godefroid de Fontaines 459
 Goldman, Alvin 416
 Gonet, Jean-Baptiste 237, 263
 Gonzalez, Tirso 121–22, 156–60, 196, 257, 262, 326, 347, 359–66, 390, 400, 404, 465
 Gratian 33
 Greater Probability Claim (GPC) 346–49, 366
 Grosseteste, Robert 43
 Gualdo, Gabriele 314–16
 Gury, Jean-Pierre 167, 345
 Hacking, Ian 78, 81, 199, 487, 525
 handbooks for confessors 38
 handbooks of casuistry 189
 Haunold, Christoph 509
 Henry of Ghent 35, 38–40, 45–47, 173, 207, 213, 230–32, 288, 320
 High Casuistry 114, 125, 133, 201, 299, 353
 Hobbes, Thomas 265, 266

- Holcot, Robert 407
 Humanism 82–85
 Hume, David 385–88
 Huygens, Christiaan 397, 488, 492, 498
 illiterati 230–36, 240, 472
 incommensurability, of reasons 420–21
 Ineichen, Robert 498
 Izquierdo, Sebastian 507
 Jansen, Cornelius 129
 Jansenism 129–31, 132, 139–43, 164, 238, 307–10, 353, 488
 Jesuit Order 74, 167, 175–78, 185, 218
 John of Salisbury 285
 John of St. Thomas 108, 140
 Jonsen, Albert 201, 448, 474
 Junius, Andreas 362
 Kant, Immanuel 116, 396
 Kircher, Athanasius 131, 392, 507
 Knebel, Sven 359, 363, 488, 504, 523
 knowledge 34, 40
 Kortum, Hans 319
 Lacroix, Claude 196, 257, 264, 332, 337, 342, 383–84, 391, 399, 463
 Lambert, Johann Heinrich 493
 Laplace, Pierre-Simon 339
 laxism 132–36
 Laymann, Paul 126, 188–90
 Ledesma, Pedro de 500
 Leibniz, Gottfried 265–68
 liberty of conscience 456
 liberty, language of 482
 liberty, negative 455
 liberty, right of 483
 liberty-favoring (*libertati favens*) 454–56, 481, 484
 Liguori, Alfonso de 162, 166, 455
literati 39, 230–31
 Locke, John 148, 266–68, 353, 407
locus, rhetorical 85–91
 Lombard, Peter 33
 Lopez, Luis 461
 lottery model 523
 lottery paradox 524
 Louis XIV 317–18
 Loyola, Ignacio de 467
 Lugo, Juan de 520
 Lumbier, Ramon 374
 Maclean, Ian 81–82
major et sanior pars 52, 90, 92, 215, 227, 243, 270, 289
 Major, John 75–76, 174–75, 208–10, 226, 234, 271–73, 289
 Malebranche, Nicolas 307
 Marquis de Condorcet 242, 261, 265, 268–75, 276–77, 279–80
 Marsilius of Inghen 53
 Maryks, Robert 62, 170–86, 205, 447, 452, 488
 Mattesilani, Matteo 214
 Mazzolini (de Prierio), Silvester 64, 77, 226, 227, 234, 289–91, 293, 461, 518
 Medici 233
 medieval tutorism 66, 92, 97, 147, 165
 Medina, Bartolomé de 72, 91–94, 117, 122, 180–84, 294, 460
 Mendoza, Pedro Hurtado de 456
 Mercori, Giulio 144, 146, 258, 311–12, 349–51, 415, 464
 Merenda, Antonio 145
 Merolla, Francesco 370–71
moderni 283, 287–93, 288, 295, 303
 Molina, Luis de 123
 Monaldus de Capodistria 287–88
 Neo-Thomism 23
 Neubauer, Ignaz 161–63
 Neumayr, Franz 475
 Nicole, Pierre 140, 141, 309–10, 353, 389, 488
 Nider, Johannes 45, 63–65, 173, 288, 459
 numerical thresholds 262–64
 Oliva, Gian Paolo 152, 354, 360
 Oñate, Pedro de 521
opinio probabilis 47–51, 56–57, 187–90
 opinion (*opinio*) 43–47
 opinion, choice of 31, 45, 67, 406
 Oratorian Order 127, 128, 307, 370
 Otte, Gerhard 448
 Oudin, Casimir 238
 Pacioli, Luca 490
 Palanco, Francisco 455, 503, 515
 Palmer, Roger 418
 Paludanus *See* Pierre de la Palud
 Pascal, Blaise 133, 140–42, 146, 308–9, 315, 488
 Pasqualigo, Zaccaria 99–101, 127, 135, 193, 296–301, 299–301, 370–74
 Pérez, Antonio 96, 340–41, 505, 521, 526
 Perrault, Charles 317–18
 Pierre de la Palud 459

- Plato 303
- plausibility 173, 280, 329, 512
- pluralism of opinions 17–19, 67–70, 136–38, 209, 277, 323
- plurality of opinions 33, 34, 40, 45, 60, 88, 105, 236, 288, 384, 453
- Pope Alexander VII 139–43, 155, 221, 253, 297, 310, 344, 393
- Pope Alexander VIII 253
- Pope Clement V 310
- Pope Clement XIV 164
- Pope Innocent XI 142, 253, 373
- Pope Innocent XII 157
- Pope Paul V 118
- Pope Urban VIII 118, 127–29, 129, 136, 154, 253, 296
- Possessor Principle 109–11, 115, 146, 149, 260, 396, 484
- Prado, Juan Martinez de 251–52
- Prado, Martinez de 255
- probabiliorism 147, 165, 346, 360, 361, 509
- probabiliorism, definition 345
- probabilism 14–17, 91–93
- probabilism, and modernization 293–94
- probabilism, geography of reception and retention 124, 127, 159–64
- probabilism, moderate 146, 150, 187, 221, 255, 278, 327, 361, 383, 403
- probabilism, modern 15
- probabilism, radical 111, 236, 243, 257, 277, 316, 370–75, 388
- probability, both-sided 51, 147, 199, 267, 280, 328, 347, 356, 506, 508, 527
- probability, calculus 48, 76–78, 96, 267, 280, 497, 502
- probability, classical view 507
- probability, degree-of-belief 495
- probability, direct 343–44
- probability, dual concept of 172, 187, 195, 203
- probability, epistemic 203
- probability, equality of 76–78, 526
- probability, extrinsic 190–94
- probability, frequency (*ut frequenter*) 50, 131, 152, 198, 358, 496
- probability, frequentism 199, 502–16
- probability, greater or smaller 51
- probability, intrinsic 190–94
- probability, modern emergence of 525
- probability, modern interpretations of 494
- probability, of events 504
- probability, practical 336–39
- probability, reflexive 343–44
- probability, scholastic 80, 132, 150, 169, 186, 334, 340, 379, 487, 494, 495
- probability, slight (*probabilitas tenuis*) 368
- probability, speculative 337
- probability, subjective 496
- probable (*probabilis*) 47–51
- probable opinion *See opinio probabilis*
- probable probability (*probabilitas probabilis*) 368, 382
- problem of points 80, 490
- Protestant casuistry 114
- Protestant humanism 82
- Protestant scholasticism 125
- Pyrrhonism 79, 373, 388–92
- Quantin, Jean-Louis 448
- querelle des anciens et des modernes* 283–85, 316–20
- Quintilian 184–85
- Rassler, Christoph 166, 342
- Raynaud, Theophile 291
- reasonable assertability 145, 150, 331–36, 403, 433
- reasonable disagreement 116, 199, 261, 267, 277, 280, 335, 366, 378, 435, 444
- reflex principle 112
- Reformation 85
- Renz, Placidus 163
- Rocafull, José 297–98, 310
- Rosalibus, Barnabas de 76
- Rosmini, Antonio 152, 404
- Sá, Manuel de 246
- safer side (*tutior pars*) 60
- safety first rule 63–67
- Salas, Juan de 94–96, 107–11, 178, 192, 195–96, 404
- Salon, Miguel 123, 181, 187
- Sanchez, Tomás 118, 133, 178–84, 178, 183, 187, 192, 246, 250–52, 295–96, 300–301, 322, 386, 462, 476, 480, 500
- Santalla, Tirso Gonzalez de *See* Gonzalez, Tirso
- Sarasa, Alfonso de 118, 163, 482
- satisficing, epistemic *See* epistemic sufficiency
- satisficing, moral 106–9, 115, 122, 145, 152, 405, 414

- Sayer, Gregory 124, 188
 Schildere, Louis de 228, 263
 School of Salamanca 73, 85
 Schwartz, Daniel 16, 92, 97
 Scotism 128, 209, 394, 404, 426, 436
 Scotti, Giulio Cesare 200
 Scotus, John Duns 209, 287, 291, 303, 305, 320, 512
 sexual morality 134, 300, 476, 480
 Sforza Pallavicino, Pietro 131, 150, 154, 198–200, 274, 328, 335, 358, 415, 422, 506, 516
 Sinnigh, John 141, 146, 395
 skepticism 79, 156
 social choice, theories of 499
 social disciplining 479, 485
 social epistemology 19, 57, 67, 148, 221, 224, 282, 288
 Soto, Domingo de 85
 Spanish scholasticism 14
 Spinola, Stefano 130, 412, 420, 426–27
 stand-alone authority 220, 243, 257–60, 265–68, 277–82
 statistical correlation 523
 Suárez, Francisco 65, 95, 109, 112, 178–84
 Summenhart, Konrad 75–76, 174–75, 208–15, 271–73, 289, 459
 Tamburini, Tommaso 372–74
 Tassoni, Alessandro 319–20
 Taylor, Jeremy 148
 Terill, Anthony 151–53, 200, 260–62, 262, 280–81, 298, 327, 341–44, 356, 361, 377–83, 387, 400, 403, 417–44, 515, 523
 testimony 20, 39, 50, 82, 86, 172, 183, 223, 250, 266, 358, 411
 Theatine Order 127, 189, 296, 370
 Thirty Years War 104, 118, 129, 139, 143, 393, 482
 Thomas Aquinas 23, 28, 35–38, 40, 44, 47, 74, 77, 91, 108, 219, 244–45, 258, 291, 303–6, 320, 374, 408, 410–11, 440, 503, 511, 514, 515, 518
 Thomism 22, 23, 36, 108, 189, 209, 290, 403, 408, 420, 422, 426, 432, 436
 toleration 70, 456, 459
 Toulmin, Stephen 201, 448, 474
 Turrini, Miriam 448, 476
 tutelage by others 475–77
 Tutino, Stefania 203, 449
 tutorism 65, 165, 346
 tutorism, in the Middle Ages *See* medieval tutorism
 Ubaldus, Baldus de 81
 Uncertain Law Principle 111–14, 116, 146, 149, 484
 Valencia, Gregorio de 124, 178
 Vazquez, Gabriel 99, 107, 178–84, 185, 190, 205, 228, 234, 246, 249–51, 273, 295–96, 364, 414, 422, 461, 471
 Versor, John 55
via benigna 481
 Villalobos, Enrique de 500
 Vio, Thomas de 174, 305, 519
 Vitoria, Francisco de 85
 voting 270–72
 War of the Spanish succession 161
 William of Ockham 218, 305, 405
 Williams, Bernard 409
 women 236–39