

Postmodernity in Philosophy

A Peirce & Poincaré Trilogy

From the University of Scranton Press

Volume 1.

Peirce & Poincaré

The Protosemiotik Development.

Volume 2.

Descartes & Poincaré

The Crossroad of Signs and Ideas.

Volume 3.

Peirce & Poincaré

The Action of Signs from Nature to Ethics.



René Descartes (31 March 1596–1650 February 11)



John Poinsot (9 July 1589–1644 June 17)

Rationale of the Trilogy.

Three Volumes Detailing the Achievement of Semiotic Consciousness

The volume in the reader's hands, *Descartes & Poincaré: the Crossroad of Signs and Ideas*, is the second of a three-volume set laying out the pattern of discovery leading from the original notion of sign as a general mode of being transcending subjectivities to the postmodern idea of the universe perfused with signs, by way of the bridge across the byway of modern philosophy known as the "Way of Ideas". The rationale of the trilogy is what I here want to lay out for the reader in terms as brief as possible, leaving it to the volumes themselves to spell out the full details of the amazing story of how semiotic consciousness came to form the quintessence of a prospectively postmodern and global intellectual culture in the first decade of the 21st century.

If we look at the doctrine of signs from the precise standpoint of *human awareness* of its thematic extent and possibilities, we find **three crucial nodes or "turning points"** along the path leading to the 21st century emergence of semiotics, or what Susan Petrilli so aptly calls a "metasemiosis". Not at all a development *beyond* semiosis (impossible for finite beings, as we will see), metasemiosis designates the fulfilment *within* semiosis of its highest possibility for coming to terms with things as beings — sometimes mind-independent, sometimes mind-dependent, sometimes (usually) an objective mixture of both — knowable in themselves, thanks to the singularity of relations as the only mode of being transcending the subjective circumstances divisive of reality.

The emergence of semiotics (or "metasemiosis") consists in the awareness which the human animal, in using signs as every animal must, achieves with the intellectual realization that *the being proper to signs* consists in triadic relations, invisible as relations to sense perception, transcending every subjective boundary, and upon which every achievement of human knowledge depends. This is the realization identifying the human being, even in order to be a "thinking thing" (or *res cogitans*), as having to be, *yet more fundamentally and integrally*, a *semiotic animal*, the only such animal on earth, with the responsibility that imposes — semioethics, as we will also see. As semiotics goes global, the realist/idealist controversy of modernity dissolves in the face of an understanding that "reality" is hard-core *as well as socially constructed, and knowable throughout*.

Thus postmodernity proves to be that improbable "moment in time" where the achievements of medieval Latin and ancient Greek thought slip out from under the Kantian erasure to achieve in the pragmatism of ideoscopic science a new integration in the totality of intellectual culture made possible by the cenoscopic achievement of semiotics as an — the only — *inherently* interdisciplinary perspective within the human experience of 'otherness' in the surroundings both social and physical. No absolute divide can be admitted between nature and culture, because culture arises from nature, just as bodies are the condition for ideas. The connections between culture and nature are structural, inherent to life on the planet, indeed to semiosis in its complex totality (synechetic continuity, on the one hand, and the fragmentation of otherness, on the other, as the condition for the development of semiosis everywhere in the cosmos).

The **first turning point** on the road to the development of semiotic consciousness ("metasemiosis") comes when Augustine at the end of the 4th century ad articulates the notion of sign as a mode of being transcending the "divide" or difference between nature and culture. This notion develops over the succeeding Latin centuries into the realization that *relation as an ontological singularity* is the key to the sign's unique transcendence over not only the divide between nature and culture but also the divide more generally between subjects of existence in any order as having an existence which sets them apart from other things, even while being necessarily related to these others-than-themselves. The culmination of this development is in the early 17th century work of John Poinset, who establishes the tri-relative being proper to signs as a unified and distinctive

area of investigation. Hence the first volume in our trilogy, *Augustine and Poinsoot. The Protosemiotic Development*.

For the period between Augustine and Poinsoot marks the span over which the sign is established as a unique mode of being transcending the divide between “inner” and “outer”, reconciling in itself all the differences between nature and culture wherever and whenever communication successfully occurs among individual beings of whatever species. This development is the subject of the first volume in our trilogy.

The **second turning point** has its origin in Poinsoot’s very lifetime. It is a Janus-faced situation, a “cryptosemiotic development”, as Sebeok termed it. In one line of vision, “science”, heretofore practically speaking exclusively philosophical and cenoscopic, begins to be ideoscopic as well: experimentation and mathematical systematization begin to be thematically applied to our observations of the physical world. This development was in itself a great advance for human understanding, yet on the side of science as cenoscopic — philosophy — took a wrong turn in the work of Descartes and slightly later with John Locke as well (despite the latter’s decisive role in our name centuries later of the doctrine of signs as “semiotics”). For even though Locke chastised Descartes for separating ideas of reason from sense experience, yet more fundamentally he agreed with Descartes that ideas, mental representations formed by the human mind in its interiority (albeit of sense first rather than of reason), wholly constitute the direct and immediate object of human experience. Thus arose the modern distinction between “Empiricism” attending to sense and “Rationalism” touting the primacy of reason. But both alike distinguished “epistemology”, concerned with human knowledge in its direct immediacy, from “ontology”, which concerns rather the world beyond the appearances — a “beyond” which (modern science to the contrary notwithstanding) the philosophers, ignorant of the Latin semiotic development and skeptical in any case (since Ockham) of the reality of relation, slyly came to consider as *unknowable*. (Such at least was the ineluctable consequence of their epistemology.)

Hence in the second volume of our trilogy, *Descartes & Poinsoot. The Crossroad of Signs and Ideas*, we examine the contrast between signs (which are prior to the very possibility of any distinction between “ontology” and “epistemology”) and the modern notion of objects as mental self-representations. This notion of the mental as “self-representing”, even with Kant’s later reintroduction of a distinction between objects and

subjective ideas, leaves no consequential alternative to solipsism. The moderns gathered their thought around the impoverishing fixation summarized in Kant's idea that "substances can exist and yet have no relation nor actual connection" with surrounding substances. A better understanding of the concept of independency, or "substance", had been clearly outlined in the Second Preamble of Poinsett's work on signs, where he demonstrated that semiosis requires that all things of the world, including ourselves, enter the world in a condition of *interdependency* — and that only thanks to such a condition can life continue. (The implications for ethics as "semioethics" will appear in our third and concluding volume, and require further development in volumes devoted to the challenge of a semiotic understanding of responsibility.)

Finally comes **the third turning point**, the point at which C. S. Peirce, in the waning light of modern philosophical thought as the 20th century opened, turns back to the Latins and picks up again the threads of the semiotic development. He thus establishes himself as the last of the moderns and first of the postmoderns in realizing that the being of signs as triadic relations holds the key not only to the hardcore realism of ancient Greek and medieval Latin thought — "scholastic realism", as Peirce called it — but equally to the realism of social construction in the realm of objects which had so entangled the later moderns that they despairingly came to see "realism" is an illusory alternative to *idealism*.

Semiotic as treated in common by Poinsett and Peirce alike as essentially focused on triadic relation reveals that the expression "being" contains a linguistic trap, with its corresponding conceptual trap, only if we fail to understand the profound interpenetration of being as something "in itself" and "being" as constituting the relation-structured life-world, the *Umwelt*, of animals, including human animals. The two are hardly opposed in the impenetrable manner modern epistemology came to postulate, for without "being in itself" as knowable there could be no "otherness", while without the species-specific distinctiveness of human understanding there could be no problem of a *responsibility for otherness* — "semioethics", as we have seen the problem best expressed in post-modern terms. Semiotic consciousness, thus, and the future of humanity come together in humankind's present of the 21st century.

This third turning point thus is the decisive opening to a new future of intellectual culture, in which the past of philosophy itself is no longer rejected but now rather retrieved and seen in the light of a **postmodern**

dawn, wherein semiotics reveals itself as the final stage of the modern scientific revolution. For semiotics provides both the transdisciplinary remedy to the specialization that science necessitated in order to develop along ideoscopic lines, and also the context within which human responsibility for being reveals its full amplitude.

Hence the concluding volume of our trilogy, *Peirce and Poincaré: The Action of Signs from Nature to Ethics*, will show that the way forward is not by ignoring but rather by retrieving the past, integrated semiotically into a higher synthesis than thought divided between speculative and practical could achieve. This is the “final reason” — the “final cause”, if you like — for the trilogy of which you, dear reader, hold one volume in hand.

Aviso

Concerning the Late Latin vis-à-vis the Early Modern Centuries

The reader has to be warned that the period of early modern philosophy approached from its Latin side, rather than from the side of its emergence out of Latin into the national language traditions of classical modern thought, is a dismaying maze of the greatest difficulty to navigate. We need a compass and a guide to gain an initial orientation. In this case our compass is the establishment of the standpoint proper to semiotics within philosophy, and our guide will be John Poincot.

Without this compass and guide, as the modern histories of philosophy standard to now bear witness, the whole landscape of late Latin thought dissolves into a morass of material repetitions of terms (i.e., the constant use of the same terms to convey actually different points)¹ and multiplication of abstruse distinctions, leaving the visitor practically without a clue beyond the engrained modern prejudices toward the Latins which every contemporary has imbibed with the air one breathes. Needless to say, the orientation more or less unconsciously provided by such prejudices is not particularly helpful if it is to be a question of attaining a new understanding of the possibilities inherent in the Latin matrix of early modern philosophy, and eventually seeing those possibilities with rinsed eyes in their bearing on the future of thought.

¹ See "The Problem of the 'Nose of Wax,'" in Deely 2001: 369–372. See also 483–484; and additional Index entries, p. 943.

Hence it is that a familiar guide, one who orients us in terms of the classical modern development as it actually came about, is perforce the least useful one. We need instead an *unfamiliar* guide, unfamiliar in terms of the actual modern development after Descartes as it has led to the situation in which philosophy contemporary with this publication finds itself, but a guide *intimately familiar* with the Latin developments *leading up to* the time of Descartes and the “modern revolution” — for only such a guide could provide us with the full intellectual context of Descartes’ time background to the “turn to the subject”, the “modern revolution”. The reader needs to be open to the possibility that there could be such a “neglected figure” capable of orienting us in terms of the intrinsic possibilities of the Latin development and proving that those possibilities are not what Descartes and the moderns have heretofore led us to believe they were. For as far as the history of early modern philosophy goes, it is impossible to study it while leaving out the standard figures (and indeed Descartes and Locke will figure throughout our remarks in these pages), but it is equally impossible to enlarge the early modern context through the Latin sources if we regard them solely from the standpoint to which the standard figures have accustomed us. We need a non-standard figure — a *non-standard primary source* — as a guide, one who knew the whole early modern Latin context, and therefore who knew the Latin development far better than Descartes himself. In particular, with a view to the *postmodern* development, we need a guide who is able to show within the late Latin context an orientation toward a notion of being understood within experience as prior to the categories and to *any* division of being into what is mind-independent and mind-dependent.

Allow me, then, to introduce John Poinsoot, 1589–1644, as our orienting figure and guide. A contemporary of Descartes neglected in the standard histories of the modern period (try finding his name without a search engine), Poinsoot was a central figure of the Latin matrix within which early modern philosophy gestated. To students of the modern mainstream, Poinsoot’s name is, practically speaking, wholly unfamiliar. It sounds French, but is in fact Burgundian, dating back to a long-forgotten time when the Duchy of Burgundy was an independent region. Moreover, the name contains no hint of the fact that the man bearing it was born and raised in the Portuguese city of Lisbon, of Maria, a Portuguese woman of the Garcez family married to Peter Poinsoot, a Viennese gentleman who had journeyed first to Madrid as Secretary to the Archduke

Albert the VI, and thence with the Archduke (made Cardinal for the occasion) to Lisbon, where he settled for some years and took Maria Garcez as his wife. The difficulty that Poinso is a name and figure unfamiliar to the mavens of early modern philosophy in its classical development is compounded by the further difficulty that no less than eighteen different versions and variations of his pen name (Deely 1985: 423n33) are required to locate in scholarly sources what has been written about him, here and there, over the centuries since his passing.

In all the variants, counterparts to the English “John” are verified. That his family name, his surname, was “Poinso” is certain. His own later substitution of “a Sancto Thoma” for “Poinso” in religious life has created a number of more or less counter-productive problems (given the way that the modern period of intellectual culture developed in fact), both within and outside the Hispanic milieu where he produced his Latin writings.

Within the world of Hispanic and Latin philosophy, Poinso’s work sometimes came to be confused with that of two other authors using the same “nomen religiosum”. To remove this confusion, it was necessary to recur to the proper surnames of all three authors, to wit, Buccretius, Sarasetenus, and Poinso.

Outside the Hispanic and Latin milieu, the practice of the substitution of names reflects religious customs and ideological orientations which are at best poorly understood, and which at worst are the objects of hostility and bigotry (such as befell Poinso in the later 20th century among the numerous followers of Etienne Gilson²).

It is thus for good reason that the best contemporary and, I would expect, future work on this author turns to “Poinso” as the one name for John that provides something approaching an invariant reference across all the national language lines of contemporary discussion.

Poinso was completely unknown to Peirce, which is a pity, because Poinso was the first systematically to demonstrate the foundations of logic and knowledge in the sign in just the sense that Peirce thought of logic as semiotic.³ Yet their common acquaintance with the

² See Deely 1995 for a discussion of Gilson’s role in the neglect of Poinso’s work even among those late moderns interested in the Latin work of Thomas Aquinas, the so-called “Neothomists”.

³ Poinso was likewise unknown, it would appear, to Heidegger, which is again a

Conimbricenses⁴ achieved a common influence in orienting them alike to the problem, as we might put it, of “Thirdness” in nature and culture.

By demonstrating how signs are indifferent to the mind-dependent and mind-independent dimensions of objects within experience, Poinset was the first to establish a unified subject matter for semiotic inquiry, and to show how the fabric of experience at all levels is woven of sign relations. But this is to get ahead of the story. The point here of our “Aviso to the Reader” is simply to establish Poinset’s credentials as a guide at once credible and reliable within the larger Latin context of thought in Descartes’ lifetime, as also in matters of semiotic a commentator on the bearing of late Latin thought toward emergent distinctively late (very late) and *post* modern concerns with discourse *both* in its contrast with being considered as a mind-independent reality *and* in its ability to establish the context for understanding reality in that sense.

Between the years 1631 and 1635, as professor of philosophy at the University of Alcalá, then-rival to Salamanca as Spain’s greatest center of higher learning, writing under his name in religion, “Joannes a Sancto Thoma”, John Poinset brought to publication a two-volume treatment of logic and a three-volume treatment of natural philosophy. All of the volumes, except the first in natural philosophy, which was published in Madrid, were published at Alcalá. In 1637–1638 the first general edition of the contents of the original five volumes was published in Rome as nine volumes in a two-part set, wherein the volumes on logic bore their original title of *Ars Logica, Prima et Secunda Pars*, and the volumes on natural philosophy were assigned the common title — whether by Poinset or by his publisher we do not know — of *Cursus Philosophicus*. In 1638, in Cologne, this time in three volumes, the second general edition of the contents of the original five volumes was published under the care of Thomas of Sarria. For this second general edition the modifier *Thomisticus* was

in that Poinset’s *Tractatus de Signis* was in effect the answer to Heidegger’s foundational question of 1930 (in *Vom Wesen der Wahrheit*) concerning the notion of truth as a correspondence of thought with thing (what is the basis of the prior possibility of such a correspondence?), paralleling his seminal inquiry of 1927, opening *Sein und Zeit*, into the notion of being as prior to the categories of logic and *ens reale*, as also to his puzzlement expressed toward the volume’s end as to why being appears to the human animal as present-at-hand, despite the fact that being ready-to-hand is ‘closer’ to us ‘proximally and for the most part’.

⁴ See Beuchot and Deely 1995.

added, presumably by Sarria, to the Rome title assigned to the treatment of natural philosophy; and the general title so modified was extended to the whole of the work, including the treatment of logic. Thus was born in 1638 the *Cursus Philosophicus Thomisticus* of John Poinsoot, originally authored without that title and published over the years 1631–1635.

In the best modern edition of this work, that of B. Reiser issued in three volumes between 1930 and 1937, the modified general title from Sarria's 1638 second complete edition, *Cursus Philosophicus Thomisticus*, again appears. Reiser's decision on this point is subject to debate, inasmuch as the title in question is not one known to have been assigned by Poinsoot himself (Deely 1985: 399n4).

In favor of Reiser's decision is the negative fact that the title in question appeared well within Poinsoot's lifetime without raising any known objection on his part; and the positive fact that the title is certainly consistent with the attitude of an author reported by an intimate friend and biographer, Didacus Ramirez, to have said, on his deathbed of 17 June 1644, that he had "never, in thirty years, written or taught anything he did not judge to be consonant with truth and conformed with the teaching of the Angelic Doctor".⁵

⁵ "Vita Rmi P. Joannis a Sto Thoma", by Didacus Ramirez, the earliest biography of Poinsoot, originally published at the beginning of the 1645 first posthumous volume (i.e., *Tōmus Quartus*) of Poinsoot's *Cursus Theologicus*, and reprinted in the Solesmes ed. of Joannes a Sancto Thoma, *Cursus Theologici Tōmus Primus* (Paris: Desclée, 1931), pp. xxv–xliii. Thomas Merton, in his 1951 work, *The Ascent to Truth* (New York: Harcourt, Brace and Company, p. 334), well familiar with the traditions and writings in question, gives the opinion that Poinsoot's "most admirable characteristic is the completeness with which he proposed to submerge his own talents and personality in the thought of the Angelic Doctor"; and indeed it is true, as Merton says, that Poinsoot "sought only the pure doctrine of St. Thomas Aquinas, which he opposed to the 'eclectic' Thomism of those who, though they may have acquired great names for themselves," — the most telling target of this remark would have to be the reports that Francisco Suarez made of what he alleged to be, almost always incorrectly, the "opinion of St. Thomas", in his history-shaping *Disputationes Metaphysicae* of 1597 — "never rivaled the Angelic Doctor himself." But, in contrast most markedly to Etienne Gilson's approach to Aquinas (see again the Deely-Gilson correspondence reported in Deely's 1995 "Quid sit postmodernismus"), Poinsoot did not confine himself to "the words themselves" but to the *logical consequences* of the words in the way that Thomas had used them, accommodating even ambivalences in that usage. (No text perhaps better illustrates Poinsoot's care in reaching a consequent on the basis of Aquinas' writings than the text at 225/11–15 in Question 2 of his *Tractatus de Signis*, Book I, though there are many other examples *passim*. Cf. re the example cited, Deely 2001: 331–341, esp. 334.)

Mildly *against Reiser's decision* stands the fact that the author chose *Cursus Theologicus* without the partisan particle *Thomisticus* for the general title of his systematic eight volumes of theological writing, even though such a qualification would be more appropriate to a theological than to a philosophical context and set of volumes.⁶

We can only guess, but my guess⁷ would be that the simple title *Cursus Philosophicus*, or even *Cursus Artium*, is what Poinsoot himself saw as the best general title for the set of volumes, notwithstanding his indubitable concern for their Thomistic lineage. The last title, *Cursus Artium*, in fact, was actually used by Poinsoot in his 1640 Preface to the second edition of the *Artis Logicae Secunda Pars* (reproduced in the 1985 edition of the *Tractatus de Signis*, p. 35), and also by his first biographer, Didacus Ramirez (1645: xxxvii). A pity that Reiser did not follow this lead, rather than indulge over-much the Neothomist preoccupation with establishing "realism" in the modern sense, as if that had been the whole project of Thomas himself.

In any event, under whatever general title, Poinsoot's *Cursus Philosophicus* stands as one of the most complete speculative syntheses that we have⁸ of Latin philosophy in its final stage of development as an indigenous, linguistically homogeneous tradition. It stands also as the most complete such work written explicitly from the point of view of the Latin development as it took inspiration from the *opera omnia* of Thomas Aquinas.

Upon completion of his philosophical *Cursus*, Poinsoot set to work at once on the publication of his *Cursus Theologicus*, an even more massive synthesis of theology in the Latin Age — theology in the sense Aquinas emphasized, as a confessional-based use of human reason in contrast to philosophy as solely experience-based in the sense of experience that

⁶ Cf. Poinsoot's "Tractatus de Approbatione et Auctoritate Doctrinae D. Thomae" of 1637, in Solesmes ed. 1931: 221–301.

⁷ Spelled out in Deely 1985: 399n5.

⁸ We need to note that Poinsoot's work presupposes throughout the Aristotelian contrast of speculative with practical thought, where "speculative" refers to what distinguishes human understanding, while "practical" means the extension of that understanding to the realm of objectivity that is the common concern of all animals, human or not — that is to say, the shaping of the environment to constitute a realm of daily living comfortable to the animal type. Perhaps needless to say, then, Poinsoot's *Cursus Philosophicus*, even in its "application" of logic called "material logic", remains wholly in the so-called "speculative" order.

transcends (i.e., has a proper reality prior to) confessional divisions. This work originally appeared in eight volumes between 1637 and 1667. The first three volumes were brought to press by Poinsoy himself, and the remaining five posthumously.⁹ These works have considerable philosophical interest in their own right, to be sure, because “theology” in the sense Aquinas tried to establish it¹⁰ *presupposes* and properly never *opposes* the

⁹ Details of the publication history and contents of Poinsoy’s *Cursus Theologicus* can be found in the Latin “Editorum Solesmensem Praefatio” of 1931; they have also been gathered in English in the “Editorial AfterWord” to the 1985 Deely edition of the *Tractatus de Signis*, beginning at 398n3.

¹⁰ Deely 2001: 298: “It is not that there was no theological reasoning before Aquinas’ century. Of course there was. Indeed, more than one of the early patristic writers were skilled practitioners of Greek philosophical concepts, to mention nothing of the speculative genius displayed by Augustine in his *De Trinitate* of the early 5th century. But these writings without practical exception were of an *apologetic and pastoral bent*, which *presupposed* the Christian standpoint in such a way and to such an extent as to virtually deny philosophy any proper autonomy outside the sphere of religious orientation [as is true of the movement called “Christian philosophy” as it developed in late-20th century America]. They were imbued through and through with the spirit of *parti pris*. Taking sides was the name of the game; partisan spirit its elan. Below the intellectual vigor of these writings were the array of ‘practical’ or ‘pastoral’ writings of a strictly ecclesial, liturgical, or sacramental orientation.

“With Aquinas, religious thinking becomes something more than a mere partisan expression and appropriation of ‘pagan philosophy’. Religious thinking, to begin with, was made to respect thinking simply so called; for human understanding was recognized by Aquinas to have a proper autonomy and sphere of exercise, which, if not neutral respecting divine revelation (for Aquinas considered that all truth pointed in the direction of the divine origin of thought and being), was nonetheless not subject to mere dictates of authority either, but only to evidence in the light of which even authority could be countered as abusive. Recognition of and the demanding of respect for the ‘rights of reason’ were what distinguished the religious thinking of Aquinas and made his theology, even though based on and presuppositive of Christian revelation, a ‘science’ which could draw on without distorting the achievements of human understanding in the speculative and practical spheres alike. By distinguishing the proper spheres of religious belief and philosophical understanding, Aquinas was able to erect a framework for systematic thinking within which reason would keep its due, and hence within which intellectual dialogue would in principle be possible between faiths and across cultures. In time, the delicate plants of science, distinct from philosophy and theology alike, for the seeds of which Aquinas’s main teacher Albert showed such keen sensitivity, would find room for their normal development within Aquinas’s synthesis of philosophical doctrine and Christian religious dogma. That grace presupposes and perfects nature was Aquinas’s motto across the boards, and nowhere more than in the affairs of the intellect.” See also *ibid.* pp. 304–305. And cf. Maritain 1959.

use of philosophical reason. But the explicitly theological horizon of the project of these volumes places detailed discussion of their contents and overall structure outside our present purview.

These two syntheses of Latin thought — Poinset's *Cursus Philosophicus* of 1631–1635, and his partially posthumous *Cursus Theologicus* edition of 1637–1667 — are simply the two latest and most authoritative presentations of Latin thought at its most advanced stage that are available to us, despite their conspicuous neglect among modern thinkers, including historians. Yet it remains that they are veritable mines of gold for any postmodern effort to retrieve and understand from our own perspective and for our own interests (in the postmodern morning light) what were the achievements of the Latin Age. I have no doubt that that is exactly how Poinset's works will eventually be perceived by future scholars, as modern academic prejudices crumble under the relentless pressure of the semiotic future. But in the meantime, some formidable obstacles have to be overcome, and I see the work of this book as an early contribution to that task — Herculean, as it sometimes seems today — of clearing away an accumulation of historical stereotypes and prejudices of various kinds, including racial ones,¹¹ which stand in the way of a full and just assessment of the achievements of the Latin Age — especially in its final Hispanic phase — for what concerns early modern philosophy and postmodern prospects. Like Peirce himself,¹² every semiotician today remains for the immediately foreseeable future a “backwoodsman” in the work of clearing and opening up the Way of Signs.

Given the synoptic achievement and historically privileged position of Poinset's work in time, providing as it does the swivel and linchpin between protosemiotics and semiotics proper, why is he today a virtually unknown and thoroughly neglected figure in the history of philosophy, and in the history of early modern philosophy in particular? Because, as we will shortly see, the Cartesian revolution took modernity down an entirely different path, leaving the Way of Signs newly opened by the Latins to be covered over again in the growth and underbrush of the passing modern centuries.

¹¹ See Powell 1971.

¹² Peirce c.1906: “A Survey of Pragmaticism”, CP 5.488

John Poincot (9 July 1589–1644 June 17)
René Descartes (31 March 1596–1650 February 11)

DESCARTES & POINCOIT

The Crossroad of Signs and Ideas

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Contrasting the Way of Signs to the Way of Ideas,
Semiotics to Epistemology

John Deely

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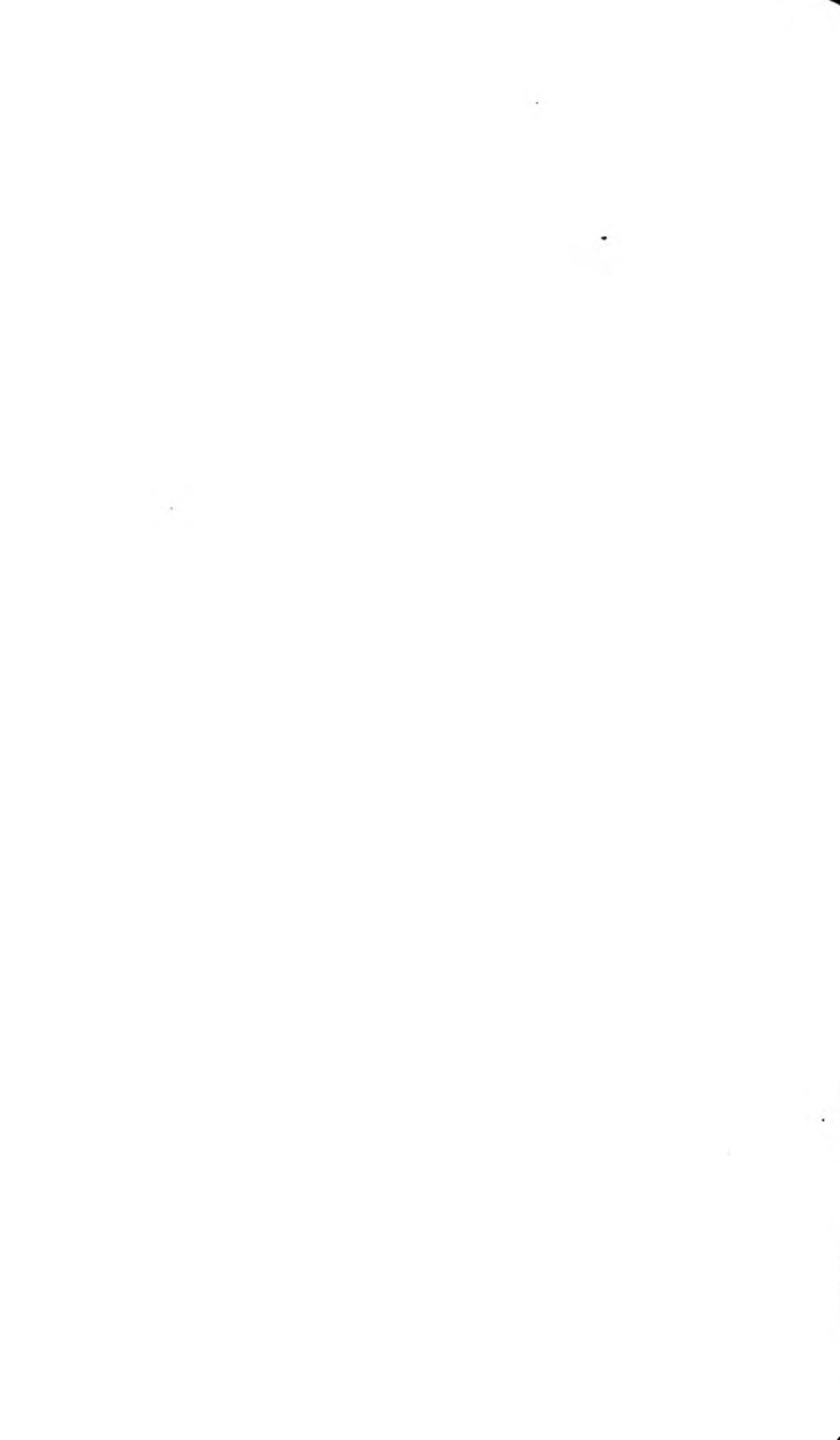
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The effigy of René Descartes on p. ii is a copy electronically retouched courtesy of Sister Mary Roberta, FSE, of the 1649 oil portrait of Descartes executed by Frans Hals and currently in the Gallery of the Louvre.

The effigy of John Poincot on p. ii, also electronically retouched by Sister Mary Roberta, FSE, is from an engraving by Herman Panneels (fl. 1638–1650) executed in the last year of Poincot's life and originally published in 1645 on the antiporta page of the first posthumous volume of *Joannes a Sancto Thoma Cursus Theologicus* by Didacus Ramirez; this likeness, the only known of Poincot, was discovered in 1994 in the Vatican Library collection by Marco Forlivesi, from whom I received it.

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The Crossroad of Signs and Ideas

Chapter 1.

Cenoscropy & Ideoscropy

“Cenoscropy” and “ideoscropy” are not common terms. Indeed, for an etymologist of the strict observance, they are not even spelled correctly. The best spelling for the former is probably “cænoscropy” or at least “coenoscropy”, and for the latter “idioscropy”. However that may be, the terms derive from ancient Greek expressions for what is “directly viewed” in contrast with what is only “specially viewed”. I myself take these terms from Charles Peirce, who in turn derives them from Bentham’s “Essay on Nomenclature and Classification” of 1816:¹ “The sort of science that is founded upon the common experience of all men was recognized by Jeremy Bentham under the name of cenoscropy, in opposition to idioscropy, which discovers new phenomena.”

¹ Charles Sanders Peirce 1905: CP 8.199. Besides this quoted passage from Peirce, there are a number of discussions of our terms in the variant spellings that occur throughout his papers — notably: “ideoscropy”, 8.328, 8.330 (but no usage of “ideoscopic”); “idioscropy”, 1.183, 1.184, 1.255, 1.273, 1.278, 6.6, 8.199, 8.201, 8.202; “ideoscopic”, 1.242, 1.278, 1.242n2, 5.521; “cenoscropy”, 8.199, 8.201, 8.202; “cenoscopic”, 8.342, 8.343; “coenoscropy”, 1.278, 1.573, 6.6 cross-ref.; “coenoscopic”, 1.242, 1.241n1. I leave the details of such discussion to the *Peirce and Poinset* volume, which completes this “Postmodernity in Philosophy” Poinset trilogy. In the present work, I am using the terms according to the spelling indicated above as preferred, and according to my own usage as stipulated.

But the spelling I propose for postmodern currency is as the title of this chapter indicates, with an “e” in place of the second “i”; and the distinction the title names is overdue for common recognition in intellectual culture, as Benedict Ashley has indicated in his remarkable “interdisciplinary and intercultural introduction to metaphysics”.²

If we look at the long record of intellectual inquiry — from the time, say, of Thales of Miletus (c.625–c.545BC), commonly recognized as the “beginning” of philosophy — the whole of human knowledge, practically speaking, was perforce of a predominantly cenoscopic character. Not until the time of Galileo and Descartes would ideoscopy begin to take root with full seriousness, with the invention of the telescope and microscope, together with the beginnings of instrument-aided opportunities to gather data and samples on a global scale. (It took nothing less to break down the local perception of thinkers across the centuries that only individuals come and go, so that “there is nothing new under the sun” other than individuals.)

Indeed, one way of understanding that historical period or epoch in European history called “the Enlightenment” is precisely as that period when ideoscopy began to take hold and demand institutionalization within the framework of the developing “communities of inquirers” inspired by the *idea* of the university, even though that idea as so-far-institutionalized fell short of the needs for adequately and appropriately supporting the emergent growth of ideoscopy.³ The exuberance of the early generations of inquirers who turned to ideoscopy, especially in the mathematization of the results of experimentation and observation acquired by the systematic use of instruments which extended the unaided sense powers of the human body, led to a naive but general expectation that ideoscopy, the development of *science* in the definitively modern sense, would “slow by slow” supplant cenoscopy entirely.

² Benedict Ashley 2006: 85–87, and 474n49.

³ Indeed, even as in the Enlightenment centuries leading “communities of inquirers” were extra-university learned societies and ‘Academies’ dependent on postal systems and extra-university publishing, such societies of “amateurs” continue also today, flourishing in the age of the internet.

That belief — that the whole of human knowledge could be translated without remainder into terms determined by the methods and terminology of experimental and mathematical science — defined the Age of Enlightenment and generated its unique enthusiasm. As long as the belief that the critical use of human intelligence is coextensive in principle with knowledge scientific in the modern sense of ideoscopically derived knowledge, just so long could the Enlightenment as an historical epoch last. As the seasons of the year transition into one another sometimes abruptly but sometimes almost imperceptibly on any given day, so do the ages of understanding come and go: usually not suddenly, but by often unnoticeable grades of transition. Just as there are those today who still live in the middle ages, or in the nineteenth century, etc., so there are those today⁴ who still cling to the enlightenment belief that science in principle is the whole of human knowledge, philosophy but a dream.

But once a general realization to the contrary had taken hold, as soon as it became apparent to a critical mass of thinkers that cenoscopy not only could not wholly be replaced by ideoscopy, but that the very enterprise of modern science *depended* upon the *prior and continued* validity of cenoscopy, at that moment the Enlightenment was over. The early enthusiasm of the new era, casting superstition to the winds and dogmatic authority over individual thinking along with it, temporarily blinded the protagonists of Enlightenment to a truth which would re-impose its evidence with time:⁵

if what little I do see [unaided by instrumentation] could be proved to be in *positive* error, then no instruments could ever help me arrive at the truth, not even at probable truth. If my senses deceive me in reading my instruments, these instruments are useless. ... epistemologically, all of natural science depends on basic natural sense experiences, ... even though ideoscopic knowledge carries us far beyond what could ever be established or even guessed at by purely cenoscopic means.

⁴ Gottlieb 2000, *The Dream of Reason* (philosophy being the dreaming, ideoscopic science the waking moments), is perhaps the latest work notable in this regard.

⁵ Ashley 2006: 86–87.

Peirce earlier put the matter this way: the “special sciences”, that is, those depending for their development upon ideoscopy, arise from “special observation, which travel or other exploration, or some assistance to the senses, either instrumental or given by training, together with unusual diligence, has put within the power of its students.”⁶ By contrast, “philosophy”, he said:⁷

deals with positive truth, indeed, yet contents itself with observations such as come within the range of every man’s normal experience, and for the most part in every waking hour of his life. Hence Bentham calls this class, *cœnoscopic*. These observations escape the untrained eye precisely because they permeate our whole lives, just as a man who never takes off his blue spectacles soon ceases to see the blue tinge. Evidently, therefore, no microscope or sensitive film would be of the least use in this class. The observation is observation in a peculiar, yet perfectly legitimate, sense. If philosophy glances now and then at the results of special sciences, it is only as a sort of condiment to excite its own proper observation.

Whence it follows that philosophy:⁸

whose business it is to find out all that can be found out from those universal experiences which confront every man in every waking hour of his life, must necessarily have its application in every other science. For be this science of philosophy that is founded on those universal phenomena as small as you please, as long as it amounts to anything at all, it is evident that every special science ought to take that little into account before it begins work with its microscope, or telescope, or whatever special means of ascertaining truth it may be provided with.

That is far from the enlightenment attitude. In the Age of Enlightenment, the enthusiasm for the modern development of science by ideoscopic means knew no bounds, and it was this age that had

⁶ Peirce c.1902: CP 1.242.

⁷ *Ibid* 1.241.

⁸ *Ibid* 1.246.

entered its gestation phase in the time of Galileo, Poinset, and Descartes. By contrast, the cenoscopic Age of Scholasticism, that had taken hold with the translation into Latin of Aristotle and the adoption of those writings as the basic curriculum for the university Faculty of Arts and Sciences, was essentially an age of commentary on “the great books”, beginning with the works of Aristotle, to be sure, but later extending to the writings of others, notably Thomas Aquinas, Duns Scotus, and William of Ockham. And this age was far advanced, already challenged (by the time of Descartes) as “benighted” by a century or more of Renaissance “Humanism”, and certainly out of step with the new enthusiasm for turning rather to the “book of nature” than continuing absorption with commentaries upon commentaries upon “books of men” — Aristotle and the principal Latin authors after him.⁹

In fact, though it did not seem so to the university professors of the time, the Latin Age was at an end, and the Age of Modern Science was beginning. Human knowledge, “slow by slow”, had finally reached the maturity prophesied by Aquinas with his remark¹⁰ that “natural science cannot achieve a mature judgment about the things of nature except insofar as it takes account of the data and things which appear to sense”, for the goal of science is precisely to know the reasons for the things of the sensible world, not simply to make comparative assessments of the opinions men form about the world: “natural science

⁹ Richard Watson (2002: 32) observes that “Catholic commentators say Descartes would have been perfectly safe living and publishing in France. But the Parliament of Paris passed a decree in 1642 forbidding attacks on Aristotle on pain of death. Descartes trivialized Aristotelian logic and argued that Aristotelian physics was false. Vanini had been burned alive in 1619 [February 9] for giving natural explanations of miracles — one of the advantages Descartes claimed for Cartesian physics — and more than a dozen heretics were burned alive in France during Descartes’s lifetime. What is more, Descartes was making fun of astrology right at the time Cardinal Richelieu was having horoscopes cast for making decisions of state.”

¹⁰ Aquinas c.1266: *Summa theologiae* 1.84.8c: “ita naturalis scientiae finis est quod videtur principaliter secundum sensum ... naturalis non quaerit cognoscere naturam lapidis et equi, nisi ut sciat rationes eorum quae videntur secundum sensum. manifestum est autem quod non posset esse perfectum iudicium ... scientiae naturalis de rebus naturalibus, si sensibilia ignorentur.”

seeks to know that nature of stone and of horse precisely in order to understand why they appear the way that they do to our senses”.

Just how limited the senses are when unaided by instruments, and just how essential mathematics would prove in the systematization of experimental results, of course, was something that the thinkers of the Latin Age could hardly even glimpse. And the fatal misjudgments in these matters of men such as Martin Luther and Robert Bellarmine, preferring Sacred Scripture to ideoscopy even for determining conclusions about nature, did not help. It was the climate of the time, not merely the misplaced judgment of particular men in authority (which is not to excuse those particular men!). Höffding reported¹¹ that, on 6 September 1624, the French Parliament “forbade, on pain of death, the declaration of any principles which clashed with the old, tried, authors, and the institution of any disputations other than those sanctioned by the theological faculty.”

In fact, the overconfidence in cenoscopy and religious authority that Latin scholasticism had unwittingly cultivated served only to block the natural transition to modern preoccupations with ideoscopic developments of science, and to make of the inevitable transition from “natural philosophy” to experimental science and mathematical physics a tragi-comedy instead of a natural maturation. And inevitable the transition in question surely was, for, as Aquinas had learned from Albert, it is no more than the *proper maturing* of human intelligence in its natural orientation to know the things of its surrounding environment.

That is largely the story of this book, a tale intended to bring into relief Peirce’s point¹² that “the cenoscopic studies of all signs remain one undivided science” at the basis or root of all human knowing, including the marvelous ideoscopy of modern science, which Descartes and the Enlightenment yet misjudged in its proper trajectory. For that trajectory does not end with modernity, but continues into postmodernity unabated, even as we develop with semiotics a new sense of the cenoscopic as providing in the doctrine of signs the natural

¹¹ Harald Höffding 1894: I, 215.

¹² Peirce 1909: CP 8.342, a letter to Lady Welby.

remedy to the fragmentizing effects of modern specialization. For we now see what ideoscopy throughout its unending extent has in common with cenoscopy, namely, a thorough dependency upon semiosis as the bond linking knowledge to life, culture to nature, in those interactions of “otherness” without which there would be no universe of any kind, none at all.

My method in telling the story is simply to compare on cenoscopic grounds (as available to all) the approach to human understanding proposed by René Descartes as a first chief representative of philosophical modernity with what we find rather in the semiotic of John Poincaré as a harbinger in Descartes’ own lifetime of postmodernity.



Chapter 2.

The Turn to Ideoscopy

His trial did not go according to his expectations. Once it became clear that torture was the next step, Galileo decided it was time to throw in the towel, and to protest that he had been misunderstood respecting his claim that Copernicus had gotten it right in suspecting that the earth revolves around the sun, and not the sun around the earth.

The judges at the trial were infuriated. They well knew that the defendant was resorting to subterfuge, but even so the unexpected statement respecting his stance pulled the rug out from under them. They could no longer consider forcing him to recant his heretical view that the earth revolves about the sun, because now he claimed not to hold that view. This little white lie saved Galileo from being convicted of heresy, but because his judges considered that he was lying, it did not save him on 21 June 1633 from being convicted of *vehement suspicion* of heresy. And this suspicion on the judges' part was sufficient to have the defendant placed under house arrest for the rest of his life.

It was a landmark event in the history of philosophy, and it made of the turn toward ideoscopy a revolution rather than what it should have been, a natural extension along ideoscopic lines of the "natural philosophy" cenoscopically outlined by Aristotle and advanced in the

Latin universities from the time of their founding to the debacle of Galileo's trial.

The debacle provoked the one thing we know that Descartes and Poinsot have in common: both men, on receiving news of the condemnation of Galileo, withdrew from publication their respective works on astronomy. Indeed, in the case of Poinsot, he seems to have destroyed the manuscript entirely, for no copy has been found to this day.

In the case of Descartes, the motivating fear was of sharing Galileo's fate, since his own work *Le Monde* was based on Copernican-like assumptions. In the case of Poinsot, the best guess¹ is not that he himself propounded a Copernican view, but rather that he was following up on the suggestion Thomas Aquinas had made *circa* 1272 concerning the uncertainty of Ptolemaic astronomy.² Poinsot's text suggests with low-key indirectness that the mainstream development of astronomy in the Latin tradition so far — the *Quaestiones de caelo et mundo* after Aristotle in the Latin translations of Averroes (1126–1198) and Avicenna (980–1037), in the works of Albertus Magnus (c.1201–1280), Thomas Aquinas (1225–1274), Peter of Auvergne (?–1304), Aegidius Romanus (i. 1243/47–1316), John Buridan (c.1300–1358), and the “steady series of Expositions and Problems”³ after Buridan down to Galileo's time — has been, in its theory of unchanging “celestial spheres”, parasitic upon and detrimental to the true philosophical understanding of the material world in what is proper to it even from the perspective of cenoscopy. Poinsot's concern was the past in its proper bearing upon the present, so that we might move forward, indeed, but while losing as little as possible of what traditional wisdom had rightly attained.

With Galileo and Descartes, it was quite otherwise. Their concern was not at all with the past, but with the future alone, and with how the present might be made to open upon horizons of knowledge and experience virtually undreamed of by the academicians of Latin times.

¹ See Deely 1985: EA 403–404, and 439n55.

² Aquinas c.1272/3: *In I de caelo*, lect. 7 n. 77, and lect. 17 n. 451: discussed in Deely 1969: 252n154 and 261–264; 1973: 45–46; and 2001: 263–266.

³ Moody 1942: xviii.

Their concern was not with books neglectful or ignorant of the possibilities proper to ideoscopy, but precisely and only with those possibilities above all. To read the Book of Nature required new spectacles, as it were, not simply the reading glasses of academicians.

Thus Galileo and Descartes, in their day, saw themselves as brothers-in-arms in the work of turning from the books of men to the book of nature, putting “natural science or philosophy” on a new, experimental and mathematical footing. Yet if you ask students today what they think of when they hear the name Galileo, the answer invariably is “science”; while the name Descartes conjures up rather “philosophy” (and the “problem of the external world”) than science in the modern sense.

This difference of associations with the two names is not entirely fair in the eyes of the student of history, who knows well that Descartes too was a man of experiment — in a word, of ideoscopic bent. Yet what both Galileo and Descartes saw in their time was that the “natural philosophy” developed heretofore along all but exclusively cenoscopic lines (with very few exceptions, such as the case of Albert the Great as the main teacher of Aquinas, or Roger Bacon and later Francis Bacon) was not simply being *extended* by new, ideoscopic methods, but that these “new methods” were destined to create a *whole new world*, “modernity”, the period in which science would reach to the “big bang” at the origins of our universe and enable human beings to travel in person beyond the earth itself — how far remaining to be seen.

The modern age *for science* was to be a triumph in extending human knowledge to a real grasp of the subjective constitution of our physical surroundings and of our own bodies as a part of those surroundings, the real meaning of a “knowledge of essences” — that is, of what makes things be the way that they are. Galileo not only discovered the heretofore unknown moons of Jupiter, but also opened the way to the scientific developments that would make possible our eventually visiting those moons. Technology is nothing more than the practical application of our ever-growing grasp through science of the being of the physical world, exactly as Aquinas had outlined:

speculative understanding becomes practical by extension — “*intellectus speculativus per extensionem fit practicus*”.⁴ Without a grasp of the subjective constitution of beings we could never develop a technological control over them. The same holds for advances in medicine and in every field of human endeavor: the greater the extent to which we know what we are dealing with, the more effectively are we able to deal with it in practical terms.

In sharp contrast, the modern age *for philosophy* was to be a closing down of the human mind upon its own workings. Philosophy after Descartes became a dead-end path to solipsism, Mr. Hyde to science’s Dr. Jekyll. (Maritain,⁵ followed ferociously by Peter Redpath,⁶ went so far as to call the whole modern mainstream development after Descartes rather “ideosophy” in contrast to cenoscopy as philosophy proper; but what they are getting at as well is the illegitimacy of the Enlightenment ambition to replace the whole of cenoscopy with ideoscopic results.)

The early moderns abandoned the cenoscopic foundations of *scientia seu philosophia naturalis*, along with the ruins of the superstructure the scholastics had built with their theories of the unchanging heavens and unchanging species on earth, thus throwing out the baby with its bathwater. The later moderns writhed in the idealist tangle resulting from this blunder. In semiotic terms, what Descartes opened the way to (and what Kant ruthlessly systematized) was a reduction of the human Lebenswelt to the epistemological situation of a purely animal Umwelt, but without being able to recognize the *ens reale* component as such, even in the latter construction: the place of the observer in the reality of the observed world.⁷ (But let us not get too far ahead of ourselves.)

⁴ Aquinas c.1266: *Summa theologiae* 1.79.11 sed contra.

⁵ Maritain 1968: 98–102, “Philosophy and Ideosophy”.

⁶ Redpath 1997; but see also 1997a and 1998. Discussion in Deely 2001: 511–512n1, 515–516.

⁷ In the objective world of animal perception, as we will see (consult in particular note 4, pp. 32–33 below), objects structured cathetically no less than cognitively are an admixture of mind-independent and mind-dependent relations. The brute animal

Instead of rebuilding on sound cenoscopic foundations, the moderns thought to establish new foundations for *the whole* of thought entirely by ideoscopic means. The result was the development of modern science as the positive achievement of modernity, an achievement marred in its very accomplishment with the unnecessary and counterproductive collateral damage of a derailment of philosophy at its cenoscopic core. The “new beginning” in ideoscopy was deformed by being mistaken for a new beginning for the whole of philosophy and human thought as well, the taking of a new way — the “Way of Ideas”, as Leibniz so aptly named it in the 1704 “Preface” to his *New Essays concerning Human Understanding*. Where science came to flourish, philosophy came to wither.

How then to move beyond modernity in matters of philosophy as cenoscopy, while yet retaining the huge gains of modernity in developing science as ideoscopy? That is the question of this book.

has no interest in and no way to sort out the difference as such in these two relational conditions, but if both were not operative the animal would have no orientation within its surroundings, the former relations orienting it to what is there in part independently, the latter relations orienting it to what is there in part dependently upon the observer. This situation has been nicely summarized in Jacob 1982: 56: “No matter how an organism investigates its environment, the perception it gets must necessarily reflect so-called ‘reality’ and, more specifically, those aspects of reality which are directly related to its own behavior. If the image that a bird gets of the insects it needs to feed its progeny does not reflect at least some aspects of reality, there are no more progeny. If the representation that a monkey builds of the branch it wants to leap to has nothing to do with reality, then there is no more monkey. And if this did not apply to ourselves, we would not be here to discuss this point.”

Chapter 3.

“Nothing Is Certain”

If we are to re-found the whole of human knowledge on the basis of experimental techniques and mathematical analysis, then indeed is nothing certain. The new foundations are too new. But perhaps, down the road, ...

To his credit, Descartes saw that there had to be something certain from the beginning. He did not put it this way or himself see it this way, but the real point is that ideoscopy presupposes cenoscopy. The “points of certainty” need not be large, but they cannot be absent entirely. Those who conclude that every conclusion is provisional are only fooling themselves.

Nor is certainty to be found only in cenoscopy, such as in Aristotle’s maxim formulated to show the necessity of there being real individuals or “substances” in the world of nature:¹ “the world is either one or many, but of the many, each is one”. In the time of Galileo, it was still possible reasonably to entertain the hypothesis that the sun orbited round the earth. Within a century this hypothesis was no longer possible at all, and even the Vatican was compelled to admit that it is the earth that orbits. By the twentieth century, enough had been learned about matter to show us that not only does the earth *in fact*

¹ Aristotle, c.330bc: *Metaphysics*, Bk. III, chap. 4, 1001b6.

orbit the sun, but given their relative mass it is *impossible* for the sun to orbit the earth, or *ever* to have orbited the earth.

The Galileo case is a prime example of a case where ideoscopic knowledge *can indeed* displace and replace cenoscopic knowledge. Thus we have moved from a cenoscopic “fact” that anyone with eyes could verify on a cloudless day, namely, that the sun revolves about the earth (a fact, incidentally, that is also *revealed as true* in the Bible,² as Galileo’s judges pointed out), to holding an ideoscopic proposition that, as a matter of fact, it is the earth that revolves about the sun. And from this ideoscopic “matter of fact” we have advanced to realize that the sun *could not* revolve around the earth in any circumstances, hence to the *necessary truth* that it is the earth that orbits.

Yet ideoscopy presupposes cenoscopy. Only if it were true that *the whole* of cenoscopically derived knowledge could be replaced by ideoscopically derived knowledge, as the Enlightenment believed, would it follow that nothing is certain. The situation is comparable to that described by Bishop Berkeley in 1710:³ If all our knowledge is by way of mental images, then we have no basis for distinguishing between primary and secondary qualities in objects, for we have no way beyond the images that we ourselves form. That all our knowledge *is* by way of mental images Hume deemed a truth that no man who reflects has ever doubted.⁴ As we shall see by our story’s end, this view of Hume’s that all knowledge is by way of mental images, perhaps more than any single statement, marks the crossroad of signs and ideas.

Poinso’s approach to the matter was carefully to distinguish the frontiers of cenoscopy, and not to treat its dialectical extension to

² For a collection of biblical revelations on the point, see Deely 2001: 494n11.

³ Bishop George Berkeley 1710, *The Principles of Human Knowledge*, Part I, Section 10, p. 45. Cf. Poinso 1632a: 311/9–19 & 312/2–6, who uses this same line of argument to justify the precursive distinction Aquinas proposed between *sentire* and *phantasiari*. (On this use of “precurive”, see the terminological note 5, p. 33 below.)

⁴ David Hume 1748, *An Inquiry concerning Human Understanding*, Section XII, Part 1. This work by Hume does not but well could bear the subtitle “Written from a completely modern standpoint within philosophy”. Compare the materials cited in the preceding note; and see the fuller discussion in *Augustine and Poinso*, Volume 1 of this “Postmodernity in Philosophy” Poinso trilogy, Section 12.7–12.8.

ideoscopic areas with the same confidence accorded within its proper domain. In closing his treatment of logic as applied or applicable to specific subject matters, what the Latins called "material logic" as opposed to purely formal logic, he urged us to:⁵

note finally that since, in the cenoscopic⁶ state of the sciences, there are not only genuine points of certainty, but many uncertain opinions as well; as regards those matters which are subject to opinion, scientific confidence is inappropriate, for in truth such matters of opinion do not pertain to science as regards the assent proper to it. Even though, by virtue of the fact that the opinions bear on the same objects a science is concerned to understand [such as the question of the earth's relation to the sun], they must be weighed within that science, yet they create a different state of mind.

Yet this "different state of mind" requires that the "mind" in question belong to someone aware of and sensitive to the limits of cenoscopy and to the difference between what can be established cenoscopically and what pertains rather to ideoscopic considerations. Absent this awareness, and you have rather the mindset of the judges of Galileo, who see no limits to their cenoscopic point of view, particularly when God himself has endorsed it in revealed texts.

What Poincot judiciously distinguished here in philosophy he distinguished also in theology,⁷ removing therefrom the treatment of the *Genesis* "Garden of Eden" story (including its account of the "effects" of "original sin") as something better left to biblical criticism and exegesis than to any philosophical or scientific account of the natural and historical world — an example which would have served Bel-larmine (not to mention most of the other "theologians" down to the present time) well to follow.

⁵ Poincot 1632, *Logica Materialis*, Ques. 27 "On the Unity and Distinction of the Sciences", Art. 2 "Whether science is a simple single quality and habit", 839a8–b10.

⁶ Poincot's actual expression which I here render "cenoscopic" is rather "*ut modo apud nos sunt*" — i.e., "in their present state", which was predominantly cenoscopic and only nascently ideoscopic.

⁷ Solesmes 1953: v par. 14.

Ideoscopy not only has its place. There are certainties which cannot be reached without the employment of ideoscopic means. Cenoscopic attainments provide a foundation for ideoscopic extensions, but only to the extent that those giving propositional formulation to the cenoscopic attainments as pertinent to any given case maintain a critical consciousness of the limitations of *cenoscopy* along with *their own limitations*. Otherwise, as happened with the “judges” in the case of Galileo, “common sense” becomes rather an obstacle to intellectual progress, and risks discrediting itself entirely as the cost of the obstacle’s removal — exactly as happened, for example, in the trial of Galileo. As Jacques Maritain remarked,⁸ “not even the patience of God” survived the action of the high Church officials in their handling of the Galileo affair.



⁸ Maritain 1973: 211.

Chapter 4.

The Way of Ideas

St Thomas has a passage remarkable — not to say paradoxical — at first glance,¹ in which he juxtaposes what later commentators

¹ Aquinas c.1266: *Summa theologiae* 1.87.3c: “**respondeo** dicendum quod, sicut iam dictum est, unumquodque cognoscitur secundum quod est actu. ultima autem perfectio intellectus est eius operatio, non enim est sicut actio tendens in alterum, quae sit perfectio operati, sicut aedificatio aedificati; sed manet in operante ut perfectio et actus eius, ut dicitur in ix metaphys. hoc igitur est primum quod de intellectu intelligitur, scilicet ipsum eius intelligere. sed circa hoc diversi intellectus diversimode se habent.

“est enim aliquis intellectus, scilicet divinus, qui est ipsum suum intelligere. et sic in deo idem est quod intelligat se intelligere et quod intelligat suam essentiam, quia sua essentia est suum intelligere.

“est autem alius intellectus, scilicet angelicus, qui non est suum intelligere, sicut supra dictum est, sed tamen primum obiectum sui intelligere est eius essentia. unde etsi aliud sit in angelo, secundum rationem, quod intelligat se intelligere, et quod intelligat suam essentiam, tamen simul et uno actu utrumque intelligit, quia hoc quod est intelligere suam essentiam, est propria perfectio suae essentiae; simul autem et uno actu intelligitur res cum sua perfectione.

“est autem alius **intellectus**, scilicet **humanus**, qui nec est suum intelligere, nec sui intelligere **est obiectum primum ipsa eius** essentia, sed **aliquid extrinsecum**, scilicet natura materialis rei. et ideo id quod primo cognoscitur ab intellectu humano, est huiusmodi obiectum; et *secundario* cognoscitur ipse actus quo cognoscitur obiectum; et per actum cognoscitur ipse intellectus, cuius est perfectio ipsum intelligere. et ideo philosophus in ii de an. c. 4 dicit quod obiecta praecognoscuntur actibus, et actus potentius.” I leave the translation to become clear from the discussion in the text of this chapter of the present work.

will call *immanent* action to *transitive* activity,² that is to say, the activity of apprehension in contrast to the activity of production: the former, he says, remains wholly within the power, and is the activity of knowing wherein alone concepts are formed; the latter passes from the power to what is outside the one acting, having its main impact there. Distinctively intellectual awareness is *always* of the former sort (“immanent”), he says; yet in *the case of human beings* intellectual awareness terminates at what is *outside* the knower, at the knower’s surroundings. How then is it not transitive?

Let us examine this passage in detail.

The *primum cognitum*, the ‘first thing in awareness’ for any intellectual creature, Thomas says, is the operation itself of the intellect, an operation he contrasts to the work of a builder in that, while the builder makes an edifice which stands *outside* of the one building, the work of an intellect remains *inside* of the one understanding “as its perfection and act”. And it is *this internal accomplishment* of production that is “the first thing that is understood by an intellectual being” (“hoc igitur est primum quod de intellectu intelligitur”).

So far so good. This fits well with Descartes’ claim that I know that I am knowing, and know therefore that I am: *Cogito ergo sum*. But wait ... For Aquinas goes on to say that self-awareness is not at all for every intellectual creature consequent automatically upon the internal act of understanding (or *intellectual* concept-formation). On the contrary, self-awareness arises in different ways for the different kinds of intellectual beings, and for human beings in particular it is, so to say, a rebound effect consequent upon knowing what is *outside of and other than* the self.

In the case of God, whose *essence* is self-awareness, Aquinas concludes: that “he” understands “himself”, and that “he” understands “his essence”, are one and the same thing.

Slightly different is the case of an angel,³ like God purely spiritual — that is, existing subjectively without so much as the possibility of

² For a clear and extended discussion of this basic immanent/transitive action distinction, see Simon 1971.

³ For full details of the angel case hypothesis, see Poinso 1643a and Deely 2004.

having a body to call its own — but quite unlike God in *not* being by essence its own act of understanding. Yet the angel does have as its first object of awareness *its own essence* along with *an awareness of itself as being aware* of that essence, both together *in one single act* of understanding as the proper perfection of its own essence as a being able to understand. But whereas God is aware not only of “himself” but also of all things in creation besides by virtue of the awareness of “his” own essence as self-aware (“he” being the sustaining cause of the existence of all that is other), the angel is other-aware (aware of other things besides itself and its self-understanding) only by the addition of *other-representations* (“concepts” in the generic sense, as Poinset explains⁴) formed by the angel itself under the stimulation of the divine activity of creation as an ongoing process.⁵

Then comes the paradox, not to say contradiction. Along comes the human being, an intellectual creature like God and the angels, and unlike the beasts of the field; but an intellectual creature which neither (*like* the angel) is essentially its own act of understanding nor (*unlike* the angel) has an awareness of its own essence as first object (the human *has no such awareness*) with an accompanying self-awareness. Rather, the human intellect has as its first object “aliquid extrinsecum” — something that is other than, something that is no part of, what belongs to the knower’s own subjectivity as such. And what this “other” that the human intelligence is first aware of is, precisely, “the nature of a material thing”, a physical object acting upon the external senses of the human being just now become intellectually aware of that object as “being”. Only after that primary awareness of its outer surroundings is in place, only “secondarily” and *long* after, somewhere along the passage of years from infancy to childhood, does the human understanding become aware of the internal act by which it is aware of the bodily other object of *initial and ongoing* awareness.

⁴ Poinset 1632a: Book II, Question 2.

⁵ Contrary to popular opinion (if we may speak of such in these matters), what is “infused” by God into the mind of angels are not concepts but the specifications on the basis of which concepts are formed: see Deely 2004 for the full technical discussion.

Thus, unlike God or any angel and like any animal, the initial awareness of the human being occurs preconceptually in sensations, but sensations which, in order to become *perceptions*, require to be *interpreted* as objects, for which the formation of concepts⁶ is the precondition. Thus the human being, like the angel and like any other animal, becomes fully aware of what is other than itself *only on the basis of concepts* or “other-representations”. Whence, unlike both God and the angel and like every other animal, the human being does not become aware of anything at all beyond bare sensations *without the assistance of concepts*, including awareness of itself as a subject (in intellection as transcending brute perception), and indeed initially in concepts *which are not intellectual*. Yet, unlike every other animal, the human animal becomes aware of the difference between objects and things, including its own intellectual activity, *derivatively* from this initial awareness (“*primum cognitum*”) of material objects in the surrounding environment as *involving also* intellectual concepts. So much for the “*cogito ergo sum*”. And even after the human animal has tardily become secondarily aware of its own awareness,⁷ to come to understand the nature of this awareness and its difference from the purely perceptual awareness of objects common to all animals will happen, *if at all*, only by way of a sustained and difficult investigation wherein many will not succeed.⁸

⁶ These concepts formed by the internal senses of memory, imagination, and estimation prior to and indeed independently of *intellectual* concepts (inasmuch as brute no less than human animals form and depend for acting upon such concepts) are called generically “phantasms” (from “phantasiari”, the generic name for the combined immanent products of internal sense): see Poinsot 1632a: 240–242 notes 1–4, and 243–244 notes 8–9.

⁷ Aquinas c.1266, *Summa theologiae* 1.87.1c: “Socrates or Plato perceives himself to have an intellectual soul from perceiving himself to understand.”

⁸ *Ibid.*: “ad secundam cognitionem de mente habendam [idest cognoscere differentiam suam ab aliis rebus, quod est cognoscere quidditatem et naturam suam], non sufficit eius praesentia, sed requiritur diligens et subtilis inquisitio. unde et multi naturam animae ignorant, et multi etiam circa naturam animae erraverunt.” — “beyond the awareness of having an intellectual soul from the awareness of ourselves understanding, to come further to an awareness of the nature of that soul in its difference from other things requires sustained and detailed inquiry. whence it is that many remain ignorant of the nature of the intellectual soul, and many develop erroneous opinions concerning its nature.”

I hope that the paradox in the foregoing remarks is apparent: How to reconcile the claim (1) that an *internal* accomplishment of production *in every case* of intellection is “that which is first known” with the claim (2) that “that which is first known” in the singular case of human understanding is something *external* to the one knowing and *by no means* immediately involves a self-awareness?

The paradox is resolved and appearance of contradiction is removed only when and if we bring to the fore an element that St Thomas himself is aware of but leaves in the background, namely, that other-representations or “concepts” are psychological states (qualities of the individual subjectivity) that of their very nature give rise to relations in turn suprasubjective of *their* very nature and terminating accordingly in what is *other* than the subjectivity in which the founding qualities “inhere” as individual characteristics subjective to the knower.

Thus the “final perfection” (*ultima perfectio*) of intellectual activity which “remains in the knower” (*manet in operante*) as “that which is first known” (*primum quod de intellectu intelligitur*) in the case of intellectual animals (the human case, in contrast to the case of intellectual pure spirits or ‘angels’, as in contrast also to the case of God) is the *concept of another* external to the knower. This concept as a subjective quality produced by the activity of understanding is a characteristic of the individual knower and internal to the subjectivity thereof, yes. But this subjective quality, at the same time that it exists subjectively, does so *not* as a *self*-representation or object of awareness in its own right, but from the very first as an *other*-representation: that is to say, it exists *subjectively* in and for the knower *precisely as provenating*, founding, or giving rise to a relation *suprasubjective* as such and terminating at *what is other than the knower’s subjectivity* — that is to say, at an object, which may but need not necessarily be wholly a thing existing independently of the knower: and this is what the “nature of a material thing” or “essence” (“*natura materialis rei*” seu “*essentia*”) “first known” is: *something capable of existing independently of being known, whether it so exists wholly here and now or not*. The first object of intellectual apprehension, even though it is perforce an interweave of mind-dependent and mind-independent elements, by the very nature of sensation as involved in

intellecion cannot but contain something of the order of being as it exists regardless of our awareness of it, something of *ens reale*.

What is interesting is that this way of resolving the paradox and removing the appearance of contradiction in the text of St Thomas from 1266 takes us to the very heart of semiotics as the doctrine of signs. For the Latin development of that doctrine between Augustine in the late 4th century and Peirce in the early 17th century ended up precisely where Charles Peirce at the end of modern times in philosophy would begin, to wit, with the notion of signs strictly and properly understood as consisting in nothing subjectively existing but rather in something existing dependently upon the subjective, indeed, yet properly and strictly transcendent thereto — *suprasubjective*, in a word — uniting the user of signs to what is rather not the user but *the significate* of the sign, its content or “ground”.

Peirce would re-introduce this distinction we find first in Peirce (“first”, that is, with any clarity that could properly be described as “thematic”). Exactly as Peirce, Peirce will distinguish between, on the one hand, signs as sign-vehicles or “representamens” (elements of subjectivity), existing as other-representations through their involvement with the reality of relations; and, on the other hand, signs strictly considered as the very *relations themselves* (suprasubjective in principle) when triadically uniting at once representamens with objects signified⁹ to or for some third thing — plant, animal, or whatever (and including angels and humans among the creatures intellectual).

Now, if this understanding of the role of ideas is correct, then the problem of the external world as posed by Descartes — and the whole of modern philosophy after him — is a pseudo-problem, or, as that twentieth-century *magister signorum* Thomas A. Sebeok put it,¹⁰ a “quasi-fallacy”.

This quasi-fallacy would be an outright error if objects and things were simply the same, but they are not. Objects as such exist only in relation to a knower, a being that is aware or virtually aware of them;

⁹ As we will see, there are no other objects than signified objects, so that “significate” says clearly what “object” says obscurely.

¹⁰ Sebeok 1984: 20.

whereas “things” by definition are what they are regardless of whether anyone is aware of them or not.

If my doctor diagnoses me as having an advanced colon cancer and I do not have it, then my colon cancer is a purely objective reality, though no doubt one that will disturb me greatly upon receiving the doctor’s diagnosis. If my doctor diagnoses me as having colon cancer and I *do* have the cancer, then that thing which is cancer subjectively is *also* cancer objectively — that is to say, the very cancer at work in the order of reality exists also in the order of what I am aware of, the objective order, as including always *something* of reality.

If, on the other hand, my doctor examines me and mistakenly concludes that I do not have colon cancer when I do, then I may leave his office much relieved, but it remains the case that subjectively and really (i.e., mind-independently) I *do* have colon cancer, despite my objectively being elated to be free of cancer.

Death by cancer awaits me in either the case of correct or incorrect diagnosis if, in the order of my subjectivity, the cancer exists as a thing. And that death will be subjective for me, objective only in my anticipation — or in the memory of those who knew and survive me.

Self-awareness is of the originating essence of divine knowledge, and also of angelic knowledge if such there be. But self-awareness is not of the essence of human knowledge at the first origin of awareness distinctively human among the animals. It is not because I think that I am; it is not even because I think that I am aware that I am, inasmuch as the essence of thought that involves concepts (which excludes both God and the self-awareness of angels, but not the angel’s awareness of other things than itself in the creation, and not the awareness of animals) is the awareness of what is other than the concept by which it is known. Angels *begin* with *self-awareness*; animals *begin* with *other-awareness* — and that condition holds even when the “other” is the human knower subsequently become aware of *itself* as one of the things of which it is aware objectively, that is, one of the things-become-object (where “thing” means what exists or did exist — or even will or could exist — regardless of being known).

But what about the case of objects which are not things, especially, perhaps (though by no means exclusively), which have never been or never will be or even could never have been things (such as the revolution of the sun about the earth, which 17th century Christian orthodoxy required us to believe)? What about the case of pure objects?

By this point in the story, the reader may perhaps already suspect that the initial problem of early modern philosophy, cenoscopically speaking, was the confusion of the Way of Signs with the Way of Ideas by way of conflating *representations* simply (objects as self-representations) with *other-representations* (“representamens” or sign-vehicles).

The two are hardly the same, differing as objects (or significates) differ from things, in the first place, and as significates differ from signs, in the second place. In the formula, “Cogito ergo sum”, we may say that Descartes has confused humans and angels. Thus, having begun his *Meditations on First Philosophy* of 1641 with a universal doubt, quickly followed in the second meditation with the supposed discovery of the self as essentially a thinking thing (not to say an angel) being beyond all doubt, he turns finally in the last of the meditations to the detail of the “external world”. Descartes reaches at last the very point from which Aquinas and Poinso see human understanding at first taking its distinctive departure: “It remains for me to examine”, says Descartes, “whether material things exist”, adding: “And at least I now know material things are capable of existing, insofar as they are the subject-matter of pure mathematics”!

We have here a whole new interpretation of the biblical saying that “the last shall be first and the first last”.

But there is more to the story.

Chapter 5.

Nominalism versus Realism

The problem started long before Descartes, and actually had little to do with the transition from the generalities of cenoscopy to the details of ideoscopy. But it was a debate which was crucial for the cenoscopic doctrine of signs; and the side that the moderns took, even apart from the dramatic 17th century shift of interest to ideoscopic problems, guaranteed the blockage of the "Way of Signs" that Sebeok has termed "cryptosemiotics", i.e., the modern period when the doctrine of signs effectively went "underground" and found occasional advances only haphazardly at the hand of researchers — often men of great genius, such as Jakob von Uexküll — who became, as it were, semioticians in spite of themselves, researchers into signs who knew little of the history nor of the thematic possibilities for theoretical development that the experience of signs offers in the case of human animals. For the debate in question put the key to the doctrine of signs, namely, the philosophical theory of relations, squarely in the crosshairs of philosophical dispute.

The debate I am referring to is the pitting of "nominalism" against "realism" in philosophy, a debate which began in the time of Abaelard (12th century) but which climaxed in the time of Ockham (14th century), when the lines were drawn which would lead to the crossroad of signs and ideas in the lifetime of Descartes and Poinsoot.

But to see the lines of battle in these terms is not easy, for the dust raised over the years has made such a cloud that, even today, it is not easy to see through it to the heart of the matter. The early modern attempt to overcome nominalism by the proposal of "conceptualism" as mediating the dispute "is itself an example in the very matter to which nominalism relates", exactly as Peirce observed,¹ "an idle and irrelevant point which had been thoroughly considered by all the great realists".

In short, the debate between "nominalists" and "realists" is not among the clearest oppositions in the (long) history of philosophy. It is customarily framed in terms of a "denial of universals" on the side of things known — a framing which is not 100% helpful to students (or to professors, for that matter). For it involves us at once in the notion of "essences", one of the most abused (and hence misleading) of the terms developed in the Latin Age. If we cannot clear up this notion, we will never be able to move beyond Gilson's description of "nominalism"² as "a poorly understood doctrinal terrain, one that is extremely complex and of which one knows at least this much going in, that the term 'nominalism' does not at all suffice to define it".

So let us realize at once that the "essential notion of essence", so to put it, is simply that the real beings of the physical world have a subjective constitution or structure which makes them be what and the way that they are; and that the essential notion of "human intellectual knowledge" (as distinguished from the sense-perceptual knowledge which we share with the other animals) among the Latins is that we can come to know this subjective or essential constitution as it obtains independently of our knowing it.

In short, as Aquinas would put it, human understanding differs from the perception of brute animals by becoming aware first of all of the difference between things in cognitive and affective relations to us ("objects"), and those same things as they are further in themselves apart from us. Apart from us, of course, things (like witches) may prove

¹ Peirce 1909: CP 1.27.

² Gilson 1944: 657: "Nous pénétrons ici sur un terrain doctrinal mal connu, extrêmement complexe et dont on sait du moins déjà ceci, que le terme de nominalisme ne suffit aucunement à le définir."

to be either comparatively “unreal”, as in the case of *ens rationis* or purely objective being; or comparatively “real”, as in the case of *ens reale* or being which, besides being objective or apprehended, also exists as subjective, “in itself”, or more than merely objective. Make no mistake about it. When the Latins distinguish *ens reale* from *ens rationis*, and designate the former as knowable, they mean exactly the objective world (Umwelt) including “things-in-themselves” irreducible to the merely physical surroundings, a world revealed in and through the phenomena of sensations first of all, but partially also in the phenomena of sense-perception and (for human animals) also intellection. Moreover, when they distinguished *ens reale* from *ens rationis* they did not at all distinguish between an “objective” and “external world” as modernity came to conceive it, on the one hand, and a “subjective” psychological and “internal world”, on the other hand.³ Not at all. The psychological realm is Innenwelt, the objective realm founded upon it as including more than psychological reality is Umwelt. The connection between the two is precisely the semiotic web of ontological relations, proving from the Innenwelt, terminating at the Umwelt, indifferently mind-independent or mind-dependent depending upon the circumstances of the relations, but suprasubjective under all circumstances.

When Thomas Aquinas spoke of “being” as the formal object first attained by understanding, the object differentiating by awareness of it understanding from sense-perception as attaining only objects evaluated in relation to the cognitive organism as to be sought (+), to be shunned (-), or safe to ignore (\emptyset), he did not mean *ens reale* in its difference from *ens rationis*. He meant rather *the entanglement* of the two in forming the objective world of animals, human included, but now seen rather as *also a world of things of various kinds existing* with some independence of their relations to animals. And only after being has been so grasped does further experience lead us to distinguish within (or “under”) this *ens primum cognitum* (this “being as first known”) between aspects of the objective world which, after all, like the motion of the sun around the earth, reduce to our experience of the objects

³ Here I can only summarize the detailed textual and doctrinal treatment laid out in Deely 2007.

and nothing more, and aspects of the objective world which turn out to obtain independently of our experience. These are the aspects of the world of objects that constitute the “things” as such of our surroundings, to the knowledge of which (as in the case of the motion of the earth around the sun) the appearances (themselves indifferently *realis* or *rationis* — even when they mislead us), nonetheless open the way through experiment and further sensation to the possibility of *sorting out* within experience what belongs to the experience only (*ens rationis*) and what obtains not only in the experience but also independently of it (*ens reale*). Hence the primacy and priority of cenoscopy, so to say, *quoad vitam* (in matters of daily life).

Thus, where perception sees things first of all and *only* as objects in relation to the animal cognizing and cathecting,⁴ intellection

⁴ Cathexis, along with precission, are two terms whose importance and novelty almost rival “cenoscopy” and “ideoscopy” for the project of our present text. In this note I will deal with cathexis, leaving the discussion of precission to the following note.

The *Oxford English Dictionary* traces the term “cathexis” to a novel usage by Sigmund Freud, specifically, to the 1922 Strachey translation of Freud 1921, where Freud identifies emotional ties parenthetically as “libidinal cathexes” (cf. Freud 1921: 97 in the access volume). Whence the term has made its way into the 4th edition (2000) of *The American Heritage Dictionary of the English Language* as “concentration of emotional energy on an object or idea”.

However, the most developed use of the term for philosophical purposes, and as I have myself taken it up in the context of semiotics, traces rather to Parsons and Shils eds. 1951 (see Deely 2004b: 56n61), where “the tendency to react positively or negatively to objects” cognitively discriminated is called (p. 5) “the cathectic mode of organization”. Just as concepts are interpretations of objects presented in sensation, and are as such — considered subjectively — but the *foundations of relations* to those very objects as termini, while it is the *relations themselves as suprasubjective, provenating from but over and above the concepts in their being as subjective qualities inherent to the organism, that constitutes the “intentionality” of awareness*, so also *affects* — ‘feelings’ or ‘emotions’ as subjective states or conditions of the cognitive organism — are *in exactly the same way but foundations of relations to objects evaluated as desirable (+), undesirable (-), or ignorable (0, i.e., safe to ignore)*. And these relations are suprasubjective *in just the way that cognitive relations are, and are also “intentional” in their being in exactly the same manner* (see Deely 2007 for detailed analysis of this ontological sense of “intentionality”, a sense prior to and presupposed by volition as such [as in “I intend to do this or that”]).

Parsons and Shils explain this situation exactly (p. 10n13): “Thus the term *cathexis* is broader in its reference than the term *affect*; it is *affect plus object*. It is *object-oriented affect*. ... Although it involves attachment to one or more properties of the object ... it does not itself refer to a property of the object, but to a *relation* between actor and

(precissively considered⁵ in its difference from sense) sees rather only

object ... [with] no connotation either of activity or passivity in the actor's relation to the object implied in the [generic] concept" of cathexis.

Thus (p. 68, italics added) "the cognitive and cathectic modes [apprehension and evaluation, as we might say], are *the minimal components of any act of orientation*" in animal behavior (zoösemiosis), including (ibid.) "any act of selection or choice" specifically anthroposemiotic. Thus, just as color and shape are apprehended simultaneously, even though the latter depends upon the former (and so is 'subsequent' *logically* even though not *temporally*), so too (ibid. pp. 68–69, italics added) "cognition and cathexis are *simultaneously given and only analytically separable*". And they are *equally semiotic* as the means whereby any object as second is made present to the organism as third *on the basis of concept and affect as 'firsts'* (p. 69): "Each object of cognition is cathected in some degree, either by virtue of its intrinsic gratificatory significance, or by virtue of its relationships to other objects of intrinsic gratificatory significance"; and "the cathectic mode is most specifically *relational* in the sense that we have already said the *orientation itself is relational*." Thus Kluckhohn will point out later in the volume (p. 398, italic added) that, even in anthroposemiosis in its limited dimension as transcending zoösemiosis, any question of "*values*" gets one "*into the realm of cathection*", even though (p. 395) cathexis and valuation "are distinguished in the world of experience and must therefore be distinguished conceptually" — the former as a general mode of zoösemiosis, the latter as a specific mode of anthroposemiosis. "It is in the evaluative synthesis of cognitive and cathectic modes of orientation", our authors summarize (p. 164), "that the major lines of the patterns of value-orientation of a system of action emerge" — which indeed contrast one culture with another, and account for the occasional inevitable "clashes".

⁵ Lest readers of the present work mistake variants of "preciss" for typographically incorrect forms of the more usual term "precise", a terminological note here is called for. My usage in this matter is adopted on the basis of the terminological suggestion advanced by Peirce (1905a: CP 5.449, italics and internal paragraphing added): "In those respects in which a sign is not vague, it is said to be definite, and also with a slightly different mode of application, to be precise, [and this] has been the well-established, ordinary sense of *precise* since the Plantagenets; and it were much to be desired that this word, with its derivatives *precision*, *precisive*, etc., should, in the dialect of philosophy, be restricted to this sense.

"To express the act of rendering precise (though usually only in reference to numbers, dates, and the like), the French have the verb *préciser*, which, after the analogy of *décider*, should have been *précider*. Would it not be a useful addition to our English terminology of logic, to adopt the verb to *precide*, to express the general sense, to render precise?

"Our older logicians with salutary boldness seem to have created for their service the verb to *precind*, the corresponding Latin word meaning only to 'cut off at the end', while the English word means to suppose without supposing some more or less determinately indicated accompaniment. In geometry, for example, we 'precind' shape from color, which is precisely the same thing as to 'abstract' color from shape,

(if even mistakenly) *things of various kinds existing*. Just as the eye sees that differentiation of light that we call color without seeing odor, so the intellect sees things with no initial realization that “things seen” are also objects which do not wholly reduce to things.⁶ The world of objects, which the animal sees only in relation to itself, the human

although very many writers employ the verb ‘to abstract’ so as to make it the equivalent of ‘prescind’.

“But whether it was the invention or the courage of our philosophical ancestors which exhausted itself in the manufacture of the verb ‘prescind’, the curious fact is that instead of forming from it the noun *prescission*, they took pattern from the French logicians in putting the word ‘precision’ to this second use. About the same time the adjective ‘precise’ was introduced to signify what *prescissive* would have more unmistakably conveyed.

“If we desire to rescue the good ship Philosophy for the service of Science from the hands of lawless rovers of the sea of literature, we shall do well to keep *prescind*, *presciss*, *prescission*, and *prescissive*, on the one hand, to refer to dissection in hypothesis; while [on the other hand] *precide*, *precise*, *precision*, and *precisive* are used so as to refer exclusively to an expression of determination which is made either full or free for the interpreter.

“We shall thus do much to relieve the stem ‘abstract’ from staggering under the double burden of conveying the idea of *prescission* as well as the unrelated and very important idea of the creation of *ens rationis* ... which gives mathematics half its power.” Cf., on this last point, Deely 2001: 309–310.

⁶ Aquinas c.1266, *Summa theologiae* 1.85.2 ad 2: “The nature itself to which it happens that it be understood or ‘abstracted’, that is to say, to which the ‘intention of universality’ applies, is not realized anywhere but in individual beings; but *what it is* that is understood or abstracted, that is to say, what founds the intention of universality, is in the understanding. And we can see something similar in the case of the senses. For sight sees the apple’s color without being aware of its odor.” — “*ipsa igitur natura cui accidit vel intelligi vel abstrahi, vel intentio universalitatis, non est nisi in singularibus; sed hoc ipsum quod est intelligi vel abstrahi, vel intentio universalitatis, est in intellectu. et hoc possumus videre per simile in sensu. visus enim videt colorem pomi sine eius odore.*”

Just so the intellect sees things without being aware that they are first of all objects. Whence the brute animal sees objects only, but with no possibility of realizing that there are also things, while the human animal sees only things, without realizing that they are also objects and not only things, and that the objective world accordingly is an admixture of *ens reale* and *ens rationis* that can never be wholly reduced to *ens reale* in the finite order.

Peirce expressed the predicament of the finite knower best with his remark of 1893 (CP 2.532): “I do not believe that anything (unless it be God) quite fulfills the idea of the real. But then, nobody can sincerely doubt that things come pretty near to being real,” where “real” means “existing independently of the finite knower”.

animal sees not only that way but also (by virtue of the understanding or "intellect" as a distinct cognitive channel) as a world of things existing in themselves, without realizing initially the admixture (the "semiotic web", as Sebeok put it, extending an analogy from von Uexküll) of *entia realia et rationis*, of mind-independent with mind-dependent being, without which there would be no experience at all. And this "seeing further" is all that "abstraction" initially consists in insofar as it transcends the perceptions of sense, the world of "appearances" as such.

Just this world of many things of many kinds is what Aristotle aimed to understand through his categorial scheme based on the notion of "substance" or individuals naturally existing through interactions. For if the world is not *one*, as the monists proposed, then it must be *many*. But in order for there to be *many*, there have to be at the same time *ones*, and these ones, the true "natural units" or "individuals", are what Aristotle classified as *substances*.

Well known is the idea of so-called "hylomorphism", the supposedly Aristotelian theory that the individual beings of nature, "substances", are "composites of matter and form". The problems start right there. For the *form* is what makes the thing be the "kind of thing" it is, the "essence", while the matter only destabilizes the individual by leaving it open to being replaced by yet another form.

This simplistic, dualistic presentation of the Aristotelian doctrine worked well enough against the backdrop of the cosmological image of an unchanging universe where only individuals on earth, not species, come and go. Once that cosmological image has been shown to be imaginary, what were treated formerly as mere subtleties of detail prove to be rather essential for the "philosophy of nature" to survive as more than a museum piece.

If cenoscopy precedes ideoscopy, however, if modern experimental science truly is the *maturation* of distinctively human intelligence, as we saw Aquinas present it earlier, and not simply the full-scale *replacement* of the "physics" and "natural philosophy" of ancient and Latin times, then cenoscopic insight demands to be systematized and analyzed in its own right and on its own terms.

In the case of natural philosophy (the “physics” of Aristotle, if you like), “hylomorphism” as a label needs to be set aside once and for all. For the cenoscopic principles of nature are not and never have been dualistic (“matter and form”) but trialistic or triadic (“matter, form, and privation”) from the beginning.⁷ Privation is the key to what the dualistic label “hylomorphism” tends to conceal: there is not only “matter and form” in the interaction of substances comprising the physical world; there are also those deformations of form, bodily changes, which render form unstable and which accumulate over time until the instability results in an end to the individual whose being depends on the stability of the form! Wrinkles as a privation portend old age, and old age portends death: but what brings death about (if not some unpredictable disaster) is the inevitable accumulation of destabilizing ‘counter-forms’ which render the body less and less able to maintain itself in the ways necessary for life to continue indefinitely. These are the “privations” of which Aristotle speaks as one of the three principles necessary to account for change in the universe of material beings.

Not just the dualism of “matter and form”, then, needs to be taken into account, but also the trialism of enforced deprivations that make form unstable and eventually force displacement of one form with another entirely. *Dualism* no less than *Monism* needs to be displaced by *Trialism*, a triad of elements — not an indefinite number of principles, as *Pluralism* posited, but three principles: matter, form, and privation, no more and no less, are requisite to make sense of a universe in which changes are evolutionary as well as and beyond cyclical. *Trialism*, as I have said,⁸ not *Dualism* (“Hylomorphism”) nor *Pluralism* nor *Monism*, holds the key to a universe of changing individuals and kinds.

It is ironic that the universe as it appears to us after Galileo is actually more Aristotelian than it was before Galileo. Indeed, our view of the universe today reveals that the “world of things” is more Aristotelian than it appeared to “common sense” in Aristotle’s own

⁷ This is a matter of historical fact, however much the fact has been distorted by centuries of simplifying analyses presupposing, tacitly or explicitly, the permanence of “forms” in the natural world: see Aristotle c.348bc; Deely 2001: 67–70.

⁸ Deely 2001: 67–70.

time, when the best cenoscopic evidence suggested a fundamental difference between terrestrial matter (where things come and go) and celestial matter (which never changes except by motion in circles). For we now know that “generations” and “corruptions”, that is, the coming to be and passing away of beings, occur not only on the earth but throughout the universe. And we know moreover that not only individuals, but every other kind of being as well, is subject to this process of “coming to be” and “passing away”. There are no unchanging heavens; there are no unchanging species. It is time for the details of the account of substance to be recognized for what they are: essential details, not mere sidelights for specialists.

To begin with, then, and contrary to the entrenched popular presentations of Aristotelian or Thomistic thought concerning nature, the principles of natural change are three, not two. Aristotelian theory in ancient times, along with its Thomistic assumption in medieval times, was “trilateralistic”, not dualistic.⁹ “Hylomorphism” is not and never has been an adequate designation for the Aristotelian or Thomistic theory of substance, explicitly including as it does only two of the three principles necessary to understand change as including generation (“coming to be”) and corruption (“ceasing to be”). Besides matter and form, there is also the accumulation of changes the material individual undergoes in time which increasingly and cumulatively destabilize its continuance in existence. Precisely this ultimately destabilizing accumulation constitutes what Aristotle called “privation”.

Besides essence considered as form, there is also and more fundamentally essence as the combination of matter and form, a combination which can be altered but never eliminated without passing into a world of pure intellectual imagination. And there is no doubt that medieval Aristotelianism lent itself to this fantasy, any more than there is any doubt that late modern neothomism in most instances¹⁰ lent

⁹ The terminology, again, is from Deely 2001: 67–70.

¹⁰ Though certainly not in all; I think principally of the work, in theology, of Karl Rahner; and, in philosophy, of Jacques Maritain, Mortimer Adler (despite his *de facto* nominalism), and Benedict Ashley.

itself to this same fantasy. Thomas Aquinas reports the example of the Islamic philosopher who thought that, since, by “abstraction” (which he, like most, mistakenly equated with “extraction” from matter), we attain the “essences” of material things, well then, all we need do is abstract the form of the abstracted form from whatever remains of matter, and so on, and we will finally reach a form without any matter whatsoever; and at that point we will directly and essentially understand substance as spiritual.

To this fantasy Thomas replies that indeed we could so proceed if the Platonists were right about the relation of form to matter. But the truth is that form in the case of the wholly material substances of the physical universe can no more exist without matter than matter can exist apart from all form. Whence it is not form that constitutes the “essence” of material beings, but the *combination* of form with matter in this or that determinate configuration, determined not a-priori but circumstantially. The idea that the “essence” of immaterial substance can be reached by “abstraction” of any form of material substance from the matter of material substances is, as might be summarized, a pipe dream¹¹ — a fantastic notion or vain hope induced by the smoking of opium.

Now where does nominalism enter in?

Substance is the most basic of all the categories of being as it is able to exist independently of the finite mind, real being, *ens reale*. All the other categories list only the characteristics (the “accidents”) without which an individual is not able to exist, indeed, but which are ancillary to being a substance of whatever kind. The first of these accidents, for a material substance, is quantity or the having of parts-outside-of-parts, which follows immediately upon matter being informed. Similarly with quality, which follows immediately upon form informing or actuating matter in this or that way. And since finite individuals depend upon interactions with surrounding things, action

¹¹ From Aquinas c.1266: 1.88.2c: “quantumcumque intellectus noster abstrahat quidditatem rei materialis a materia, nunquam perveniet ad aliquid simile substantiae immateriali?” — “no matter how far we abstract the essence of a material thing from matter, we will never arrive at anything like a spiritual substance.”

and passion (being acted upon), cause and effect, are the next in the categorial list.

Exactly here we hit the problem upon which nominalism fundamentally turns.

What *follows upon* action and passion are *relations* of cause and effect; but these relations are sustained, after the interaction giving rise to them has ceased, by aspects of quantities and qualities which trace the interaction. Do the relations simply reduce to those quantities and qualities, to the actions of causing and the effects produced? Or are relations to be regarded as modalities of being in their own right *over and above* the subjects that they relate?

This is an either/or question, like pregnancy in a woman. Plato developed no theory of relations as such; Aristotle was the first to do that, and as if to vindicate the saying that “the third time is the charm”, it took him three tries before he was able successfully to define relation in a way that did not compromise his doctrine of substance as the most basic form of finite being.¹² But Aristotle had received from Plato a very clear grasp of the difference between intrinsic characteristics of a being, or *inesse*, and relation as over and above the intrinsic subjectivity of a being, or *adesse*,¹³ and it was this notion that he developed in order to establish relation as a distinct category of $\tau\omicron\ \acute{\omicron}\nu$.

In the Latin Age, $\tau\omicron\ \acute{\omicron}\nu$ was identified with *ens reale*, or being as it exists independently of finite consciousness (“mind-independent being” for short). This *ens reale* the Latins contrasted with *ens rationis*,

¹² Detailed discussion in Deely 1985: EA 472–479, esp. notes 112, 113, & 114 for the Greek of Aristotle; see also pp. 490–514, esp. 499–500.

¹³ Cavarnos 1975: 13–38. Yet keep in mind that, while *adesse* is only sometimes intersubjective (*relatio realis*), it is yet always suprasubjective (*relatio secundum esse*); and that it is in its full extent that *adesse* contrasts with *inesse* (subjectivity, the “transcendental relative” or *relativum secundum dici* — i.e., the whole of *ens reale* as mind-independent excepting only *relatio* as intersubjective). Thus we have the contrast between *subjectivity* and *suprasubjectivity*, *relativum secundum dici* and *relativum secundum esse*, both of which coincide as having instantiation in *ens reale*, according as circumstance permits, yet with *objects* (being always termini of suprasubjective relations) existing always as public in principle whether or not, as termini, they have as well a *further* existence subjective or intersubjective in the order of *ens reale*. Objectivity transcends *ens reale*, as Umwelt transcends physical environment.

or being as it exists dependently upon animal awareness. However, while this mind-dependent being arises within animal awareness as such, yet it becomes *recognizable* in contrast to *ens reale*, recognizable as mind-dependent, only in the awareness of *human* animals (the *animal rationale*: hence the otherwise misleading inclusion of “*ratio*” in the Latin formula for naming mind-dependent being).¹⁴ The categories of Aristotle the Latins considered then as a list of the ways in which being can be said to exist independently of finite mind.¹⁵

And here we begin to get our first clear focus on nominalism after Ockham.

For Aquinas or Poinso, the basic forms of *ens reale* contrast as *esse in* (either *esse in se*, substance, the subject of existence; or *esse in alio*, inherent accidents, the subjective characteristics of existing individuals) and *esse ad*, relations suprasubjectively obtaining between related subjects dependently upon but irreducible to the characteristics of those individuals. Thus the order of *ens reale* exhaustively divides into *subjectivity*, individuals with their various characteristics both specific and distinctive, and *intersubjectivity*, relations between existing individuals, which come and go in the course of both interactions and generations and corruptions.

Among the forms of *ens reale*, then, *esse in se* or substance (‘being in itself’ in the many ones comprising the world of substances as interacting) is the “strongest” and basis of all else. *Esse in alio* (‘being in another as in a subject of existence’) or accident depends upon *esse in se*, and forms together with it the order of *subjectivity*. In sharp contrast to *ens reale* in these two subjective senses is the *intersubjective* sense of *ens reale*, relation or *esse ad aliud* (‘being toward another’, ‘being between individuals’). *Esse ad* depends upon those already weaker forms of subjectivity, the characteristics of individuals or *esse in alio*; whence

¹⁴ For a discussion of the ways in which mind-dependent or purely objective being is labeled *ens rationis*, see, first of all, Poinso 1632a: First Preamble, Article 3; with further discussion in Deely 1982: 24–26, 1985: 482–485, 2001: “Non-being in Latin philosophy”, 350–354, etc.

¹⁵ Aquinas c.1265/6: the *Quaestio disputata de anima*, q. 7, art. 9; Poinso 1632: II, Q. 14 “On Mind-Independent Being and Its Division into Ten Categories”, Art. 1 “What is a category and what is required for anything to fall within a category”.

intersubjectivity, *esse ad aliud*, is weaker still, indeed the weakest form of *ens reale* — a veritable *ens minimum*, Aquinas called it,¹⁶ considering the situation of relation within the order of finite *ens reale*.

Now the question of whether relation is an irreducible variety of *ens reale*, however “minimal” it may be in that order of being, is crucial for a number of reasons. Not the least of these reasons is the fact that, among Aristotle’s most complete list of the ways being has of existing independently of finite consciousness, four of the ten — ‘vestition’, ‘where’, ‘posture’, and ‘when’ — *presuppose* relation in order to be what they are.¹⁷ Hence our evaluation of the status of these categories vis-à-vis *ens reale* depends upon our prior decision concerning the entitative status of relation. But the reason that is crucial for the debate over nominalism concerns rather our understanding of the very notion opposed to the notion of *ens reale*, that is, the notion of *ens rationis*, or being which has its reality only from the animal consciousness — *purely objective being*, in a phrase¹⁸ (a phrase we shall in the course of these pages have to “rehabilitate”, as it were). *Ens reale*, in contrast to *ens rationis*, is not itself objective but rather *subjective* as *inse* and *intersubjective* as *adese*; but, whenever and to the extent that *ens reale* enters into the awareness of any animal, what is in itself subjective or intersubjective becomes through its involvement in cognitive and cathectic relations objective as well as subjective.

For Aquinas, as for Poincaré after him, *ens reale* has a primacy in awareness by reason of the fact that all awareness begins in sensation, and sensation prescissively considered perforce brings into awareness selective aspects of *ens reale*. In contrast with perception (as also intellection), which introduces into sensations *evaluations* dependent as such upon the animal formation of mental representations (an *Innenwelt*) on the basis of which the surroundings are presented objectively as this or that (an *Umwelt*), sensation selectively presents stimuli without, as sensation, interpreting the stimuli. With the introduction of

¹⁶ Aquinas c.1245/6: *Super Sent.*, lib. 1 d. 26 q. 2 a. 2 ad 2.

¹⁷ See the diagram in Deely 2001: 77, with accompanying discussion.

¹⁸ A phrase the meaning of which post-Cartesian modernity turned on its head and pushed to the point of virtual incoherence by the time the 21st century opened.

interpretation, we have the subsumption of sensation into the formation of Umwelt.

Thus the objective world or Umwelt, in contrast to the physical environment, includes aspects of objectivity which have their being only as a consequence of the awareness of the animal, *entia rationis*. But these *entia rationis* are formed by the higher or internal sense powers *after the pattern of the entia realia* experienced through sensation — preconsciously or “materially” in the case of brute animals, sometimes consciously or “formally” as well in the case of human animals. Not only do deliberate lies illustrate this latter process, but the formation of constitutions and the establishment and enforcement of laws do as well!

If *ens reale* is truly divided into *inesse* and *adesse*, as Aristotle, Aquinas, and Poinso were of the opinion, then the mind in forming its own constructs will be able to form nothing else, indeed, than “beings patterned after” either one or the other of these two patterns. Regardless, any “being patterned after” is clearly a relational being. So every being formed by the mind will be essentially relational in its own positive structure, *whether* formed after the pattern of beings which are not themselves relations (the pattern of *inesse*), *or* after the pattern of the experience of real relations (the pattern of *adesse*).

In both cases, the beings formed, as *ens rationis*, will be themselves relations inasmuch as they consist in a *being patterned after*, an *adesse*. But in the former case (i.e., patterned after *inesse*), as *adesse* they *will not* be what their *inesse* patterns are — whence Aquinas proposed to call them “negations”, negatives of their pattern, as it were. In the latter case, as *adesse* they *will be* what their *adesse* patterns are — whence Aquinas proposed to call them “relations”. Yet in their own positive being as “something patterned after another than themselves”, *both alike*, these ‘relations’ and ‘negations’ as mind-dependent beings, consist wholly (positively speaking) in *adesse*.

Despite the difference in pattern according to which negations and relations are formed, then, *all entia rationis* without exception consist in the positive being of relation as “being toward another” or *adesse*. Mind-independent and mind-dependent relations, thus, share in common the same ‘essence’ or positive structure of a ‘being toward

another'. Only the circumstances of the relation, external to the relation itself, then, will determine whether the relation belongs to the order of *ens reale* or *ens rationis*, mind-independent or mind-dependent being. And while some objective (that is to say, apprehended) relations, such as grammatical or logical relations, can *only* exist mind-dependently, *relation itself*, as "being toward another", *adesse*, will be indifferently real or unreal (mind-dependent or mind-independent, intersubjective as well as interobjective or only interobjective) depending not on the relation itself — which will retain the positive structure of *esse ad* (suprasubjectivity) in either case — but only on the circumstances under which the relation here and now obtains.

If the doctor tells me I have cancer and I don't, the "relation to cancer" caused by his report will be scary but purely objective; while if the doctor tells me I don't have cancer and I do, the 'relation to cancer' which I have intersubjectively will not yet have any objective existence at all, though the "relation to noncancer" objectively caused by his report will be false, a *purely* objective reality, i.e., an unreality vis-à-vis *ens reale* but a public element within my Umwelt or Lebenswelt as shared with the doctor.

But if *ens reale* is not divided between *esse in* and *esse ad*, this whole picture dramatically changes. If *ens reale* consists exclusively of subjective being, *esse in se* and *esse in alio*, individuals with their characteristics, then — and here we come to the position of William of Ockham, the root of his option for Nominalism — all relations, every *adesse*, is a creature of thought, an *ens rationis*. Nothing is shared, strictly speaking, between the order of *ens reale* and the order of *ens rationis*. In the order of *ens reale* there are only individuals with their characteristics, causally interacting, indeed, but with no *relations* as such *resulting from and surviving* the causal interactions. What relations there are as such exist only after the manner of *comparisons* and *objective memories* within the order of *ens rationis*. In the order of *ens reale* there is indeed cause and effect through the interaction of existing subjects of existence, but no suprasubjective relations as such *in that very order* over and above the subjects interacting here and now.

This was the position of Ockham. "Relation", he said, as a category of real being, is no more than the name we give to a reality which

has more than one subjective instance, such as several white things or several diseased oaks, etc. Upon noticing the multiplicity, we form a relation between or among the multiples. Every relation in its positive structure as suprasubjective is a mind-dependent being.

By contrast, in the position of Aristotle, Aquinas, and Poinso, not only is relation as intersubjective a part of the order of *ens reale* or being as able to exist apart from our cognition of it, but this same relation as *ens reale* reveals a positive structure — *esse ad*, suprasubjectivity — which is the only structure of *ens reale* that is verified as such also in the order of *ens rationis* — that is to say, even in cases where it does not obtain intersubjectively. Thus the essence of relation as “being toward” is only prospectively, depending upon circumstances surrounding the relation, intersubjective. But what the relation is in every case, whether it occurs in the order of *ens reale* or in the order of *ens rationis*, is suprasubjective according to its distinctive and positive being.

The world of things and the world of thought stand on either side of a divide across which there is a constant interconnection and passage of relations equally ‘at home’ in their being as suprasubjective on either side of the divide, according to circumstance, and particularly — as will be the unique contribution of Poinso’s *Tractatus de Signis* to demonstrate — through the action of signs as purely relational beings enabling critical consciousness. But across this same divide, in the view of Ockham, there yawns only a chasm. Physical interactions may underlie the chasm and indeed create it, but thought has only to contemplate it: such is the ontological beginning of what the moderns will come to know all too well as the “problem of the external world”.

Important to realize is that, on the view of relations as advanced by Aristotle, Aquinas, and Poinso, while distance affects interactions of action and passion, the relations consequent upon such interactions are not so affected. “Distance neither conduces to nor obstructs the resultance of a pure relation, because these relations do not depend upon a local situation”, Poinso notes,¹⁹ “for far or near a son is

¹⁹ 1632a: Second Preamble “On Relation”, Article 1 “Whether on the Side of Mind-Independent Being There Exist Relations as Forms Intrinsic to That Order”, 85/8–12.

in the same way the son of his father.” Also important to realize²⁰ is the “field character” of relations: for one and the same relation terminates at as many things as correspond to the subjective characteristic or feature — as many as have the qualitative or quantitative feature, or the feature of action or of passion — upon which the relation in question is founded. Finally, important to realize is that, though a relation in order to obtain in the order of *ens reale* requires a subjective existence on the side both of its fundament and of its terminus, nonetheless, even in this case, what makes the characteristic in question a fundament *as well as* a subjective feature of some individual existent, and what makes the characteristic in question a terminus *as well as* a subjective feature of some individual existent, is not either of the features subjectively considered but the positive structure of the relation itself as suprasubjectively obtaining. As we will see, it is this last aspect of the peculiarity (the singularity) of relation as a mode of being that alone explains the possibility of purely objective realities and aspects of reality, such as a cultural world over and above the results of social interactions among animals, or indeed such as the objective world of animal life in the first place (*Umwelt*) as irreducible to the physical environment. But these considerations we can better take up in a later chapter, contrasting the Way of Things with the Way of Signs.

For the present context enough has been said to see that, behind all the complexity and perplexity of the realist/nominalist debate, the nominalist exclusion of relation in its positive and distinctive being from the order of *ens reale* is the heart of the matter. The full statement of this exclusion or rejection occurs in and after the writings of William of Ockham (c.1285–1349). But the essential view becomes one of the defining features of mainstream modern philosophy, being held in common (as I first learned from Weinberg²¹) by Hobbes, Locke, Berkeley, Hume, Descartes, Spinoza, Leibniz, and Kant. This is

²⁰ See Poinsot 1632a: Appendix C “On the Specific and Individual Identity of Relations”, 378–389, esp. 383/35ff. and 386/30–387/7.

²¹ Julius R. Weinberg 1965: 61–119.

the reason underlying Peirce's claim,²² seconded by Maritain,²³ that, "in one word, all modern philosophy of every sect has been nominalistic"; while to propose "conceptualism" as a response or alternative to nominalism "is but another example of that loose and slapdash style of thinking"²⁴ that has enabled nominalism to survive beyond its time — down to the end of modernity itself, as it happens, where we discover that the denial of nominalism affirming the singularity of relation is constitutive of postmodernism in philosophy as semiotic.

For our immediate concern, the key figure in the modern line-up is, of course, Descartes, for he more than any other figure shows *the consequences for objectivity* of the denial of relation, as we shall now turn to examine. Yet the modern sense of "subjectivity" as "psychological subjectivity" with solipsistic overtones (where the misdiagnosed cancer presented to me exists "only in my mind" or "only in the doctor's mind"), and the opposition of "subjectivity" in this sense to the so-called "external world" of supposed physical reality began here, with the nominalist doctrine that separated relation from *ens reale*, and hence separated also *ens rationis* from its sole linkage with *ens reale* within objectivity, the realm of whatever exists within awareness.

Where nominalism gained its foothold on the line leading to modernity marks the fork in the road where idealism in the modern sense — that the mind makes whatever it is that the mind directly knows of its objects — may be said to begin. This idealism, characteristic and distinctive of modernity as a philosophical epoch, is a development that becomes inevitable as a consequence lying in wait for any who take up the nominalist position on the reality — or unreality — of relations. Without relations, what is in the mind is in the mind, and what is in the world outside mind is in the world outside the mind. End (or beginning) of story. It is a problem that never occurred to Descartes. He would rely — or thought he could — on the divine goodness to bring together the objects of thought and the things of the world!

²² Peirce 1903: CP 1.19.

²³ Maritain 1959: 1.

²⁴ Peirce 1909: CP 1.27.

Chapter 6.

The Interplay of Objects in Thought & Things in the World

Cenoscopically, we are hard-pressed not to admit as certain that objects and things overlap within our experience, however much they may also diverge. We all know the difference between being in the presence of someone, and thinking of that same person when they are away. In both cases we are aware of an object that is other than ourselves, but in the former case we can reach out and touch the object as a thing existing subjectively as well as objectively; while in the latter case, whether we rejoice at or lament the physical absence, there is nothing of the object that we can reach out and touch.

This ability to be aware of an object whether or not it is present to touch requires, if our considerations in chapter 4 have any merit, that the object in question is present to us on the basis of “other-representations” or concepts, what the Latins called “passions of the soul” (actually they called them *passiones animae*). But to understand the possibility of such a happening also requires two elements. The first is an understanding that being an object (as such, in contrast with being a thing) not only requires being in relation to a knower, but being in relation to a knower in a quite specific way, namely, as the *terminus* of an apprehensive relation. The second is an understanding that what characterizes a relation in its positive and singular being is irreducibility to subjectivity: whether such a relation be intersubjective in the

order of *ens reale* or purely objective in the order of *ens rationis*, the relation which terminates at an object has its proper being as in every instance *suprasubjective*. This suprasubjectivity is the only way that the public status of an object can be accounted for even when the object is physically absent or, indeed, when it no longer exists or perhaps never did or even could exist — such as the Fountain of Youth that Ponce de Leon wasted years searching for in Florida.

Now it is a little realized point in the doctrine of relations¹ that, of the three elements constitutive of relations as a distinctive mode of being (namely, 1. the foundation and 2. the terminus of 3. the relation itself as suprasubjective mode of reality), both the foundation and the terminus as such depend upon the relation itself for their being as fundament and their being as terminus, regardless of whether or not the fundament and the terminus *also* have a subjective status in the order of *ens reale* (as they always do when the relation is intersubjective as well as suprasubjective). Thus, triangle A is “similar” to triangle B on the basis of its shape; but this “relation of similarity” is a relation in the order of *ens reale* if and only if both triangle A and triangle B exist. If both exist and B ceases to exist, then there is no longer an actual or real “similarity” between the two, even though B’s ceasing to exist leaves the shape of A subjectively speaking (i.e., as the “shape of A”) quite unaffected. Yet the shape of A is further the *foundation of a relation* when and only when B also exists here and now, just as the shape of B is further the *terminus of a relation* only when A also exists here and now. (And the same holds in this case conversely: the shape of A respecting B is a foundation for a relation of similarity, and the shape of B is a terminus for that relation of similarity; but this same shape which is a terminus for A respecting B is *also* a foundation for the relation of similarity for B respecting A. Not all relations are reciprocal, as we shall see — most notably cognitive and cathectic relations. But what is true of any fundament as fundament and terminus as terminus holds whether a given relation is reciprocal or not: absent the relation,

¹ Although my friend Professor Timothy Noone assures me that a number of Scotists in the 14th and 15th century made this very point, I myself know of no one in the Thomistic tradition besides Poinset who has made the point in question.

reciprocal or one-sided, there is no fundament as fundament and no terminus as terminus.)

Yet if the *relation itself* is what transforms subjectively existing characteristics of individuals into further being foundations or termini of relations in the order of *ens reale*, a-fortiori is this true of relations in the order of *ens rationis*. Thus, a child who mistakenly identifies his or her biological parent is a child of that person only via an *ens rationis*, while that same child is even so the child of some other person via a relation in *ens reale*. The first relation, mistakenly thought to be physical, is in fact objective only. The second relation, not known at all, is physical even though it is not objective at all. Of course, should that hidden but real relation come to light in a future set of circumstances, then the very relation existing physically in the order of *ens reale* will also come to exist objectively within that same order of *ens reale*. Whence we see that being objective does not make a relation or any other type of object automatically an *ens rationis*; but being objective does not make a relation or any other type of object automatically an *ens reale* either.

In short, just as relation itself in its proper, positive, or distinctive being is singular in that it is of itself indifferent to realization in the order of *ens reale* or *ens rationis*, so objects as termini of cognitive or cathectic relations necessarily participate in that indifference. And just as physical things can enter into and pass out of various relationships, so when a physical thing enters into a cognitive relationship it becomes to that extent an object as well as a thing.

Initially, this occurs first in sensation, where a thing so interacts with an animal as to stimulate the senses of the animal by making the animal aware of its physical surroundings in the aspects of the physical interaction stimulating the sense. But animal awareness does not stop there. The physical surroundings stimulate sensations, but these sensations further specify a response within the nervous system whereby the animal itself forms representations of its own (other-representations, concepts) to interpret and further organize what sense is revealing. These interpretations *further* organize the data of sense,² but now

² For already at the level of external sense there is a naturally determined organizational structure reflective, Janus-like, of the *ens reale* structure of the environment as

primarily according to the needs and desires of the animal's own biological nature, just as the initial stimuli of external sense were primarily according to the nature of the physical source of the stimulation in proportion to the sense organs of the animal body. But these second-level "representations" formed in the animal's *Innenwelt* are not at all *self*-representations; they are wholly and exclusively *other*-representations, spontaneously formed to interpret objectively the 'data of sense' to the end of supporting the animal's life and development within the physical environment, indeed, but according to 'meanings' that do not reduce to that environment as the world of things in themselves indifferent to the animal's well-being or demise.

Here is where the Cartesian and modern notion of ideas as objects, and of the matter of the *passiones animae* generally as psychological states, goes off the rails. The central doctrine of nominalism in denying the reality of relations as able to obtain in the world independently of, as well as dependently upon, consciousness has the unintended consequence, as we saw, of separating the world of objects in the mind from world of things in the environment. The reduction of objects to ideas as mental self-representations is not a necessary consequence of nominalism, but it is a natural enough temptation and not at all out of line with nominalism's central tenet.

Now objects are what we know, while (in ideoscopic science no less than in medieval natural philosophy) things are what we aim to know. But by severing the link between objects and things by the denial of relation as able to obtain in the order of *ens reale* nominalism has guaranteed that ne'er the twain shall meet. Now objectivity is the veil, things are what lie behind and beyond the veil. We are into modernity; we have created "epistemology". Kant will reject the collapsing of objects into ideas as "subjective idealism", and will propose in its place an "objective idealism" wherein ideas as subjective qualities

stimulating sense and of the sense as biological receptor; and this network of physical relations, "real" in Aristotle's categorical sense, yet "mind-dependent" in the sense of occurring under the sustenance only of an animal organism, hence exists in a manner inascribable to epistemology as *distinguished from ontology* or to ontology *e converso*: see the diagram "Semiotic Structure of the 'Sensory Manifold'" in chap. 8, p. 89 below.

again become foundations for relations terminating in objects apprehended.³ But Kant has no purchase within his system to make the further step required of restoring relations to the order of *ens reale*, the order of *Dingen an sich*. This further step is, cenoscopically, what makes possible the partial coincidence of objects with things and what, in sensation (prescissively considered in its distinction from perception and intellection alike), makes for the necessary emergence of objectivity as initially containing from the world of interacting things an irreducible element of *ens reale*.

What was needed from the beginning of modernity was to challenge the nominalist assumption — or conclusion — concerning relations. Restoring a distinction between ideas as foundations and objects as terms of relations, while leaving the relations themselves wholly in the order of *ens rationis*, constitutes a replacement of the “subjective idealism” of Descartes and Locke with an “objective idealism” all right, where, with the rationalist distinction between reason and sense wanting in the empiricist modern line, it becomes possible to restore necessity to the objects of science through the a-priori forms of understanding. But it also remains that we are left with an idealism nonetheless, a casket of consciousness, as it were, sealed off on the side of sensation from the things in themselves and on the side of concepts from any possibility of assigning a status in *ens reale* to considerations bearing on being as more than material in the sense-perceptual sense. In sum, we are left with an “epistemology” which does not explain how knowledge can be of the real, but explains full well why rather the reality of things as they are independently of finite consciousness is forever *unknowable*.

The separation of objects from things is a consequence of the failure to reach the cenoscopic understanding of the singularity of relation as the only element or mode of *ens reale* which is able to move with its essence unchanged between the two orders of *ens reale* and *ens rationis*, and so to form a common bond and interweave between what animals imagine and desire and what things can provide. The

³ Detailed discussion in Deely 2001: chap. 13, esp. 553–570.

singularity of relations as the nexus of the two orders not only enables the beaver to see a stream as a prospective dam site but enables the human animal to establish that species-specific channel of linguistic communication which alone makes possible the creation of culture as the fulfillment of nature for the human animals.

Along the Way of Signs developed among the Latins after Augustine, as culminating in the 1632 *Tractatus* of Poinso, the reality of relation as indifferent in its positive being to the distinction between *ens reale* and *ens rationis* came to be seen in just this way, as the key to the very possibility of objectivity of any kind, as the link between what is objective or “known” and what is actual or “real” regardless of whether or not any given part of *ens reale* happens to be or become known. Things become initially objectified in sensation, interpreted in perception according to the life-needs of animals, but then subject to possible further interpretation according to what they are in themselves in intellection (“understanding”).

But the whole process, or “spiral of semiosis” as it has come to be called, depends upon, first, the being peculiar to relation as indifferent to the difference between *ens reale* and *ens rationis*, and, second, the subsumption through sensation of the dyadic relations of physical interaction into the triadic relations whereby one thing comes to stand for an other than itself to or for an animal aware of the object signified (even if unaware of the psychological sign-vehicle, the concept, conveying that object to its awareness). In other words, the singularity of relation as able to move between the otherwise opposed orders of *ens reale* and *ens rationis* makes possible the interweave of objectivity with physical reality in the lifeworld of animals. But — to anticipate — not only this. For we shall also come to see that this singularity of relations is the very basis for the possibility of the action of signs or “semiosis” which objectivity presupposes. The grounding of this insight will require a closer look at sensation prescissively considered in our next chapter as involving the causal interaction of things prior to the interpretive action of organisms in forming their objective lifeworld.

Here we need further to consider rather precisely the interpretive factors, the ‘mental representation’ (other-representation) formed

within the animal *Innenwelt* in order to incorporate into the animal's objective lifeworld what is sensed within the constraints of the surrounding physical environment. These representations, other-representations, as we have seen, in contrast with the self-representations whereby things present themselves also (indeed, first of all) as objects within the animal *Umwelt*, constitute the psychological states of the animal life. Such states (the foundations of the relations of cognition and cathexis) are in contrast to the physical or physiological states of the animal's own body as one material reality individuated among others in that community of causal interactions we call the physical environment, the realm of "brute Secondness". The psychological states of the animal organism as other-representations presenting the surrounding physical world organized objectively rather than simply physically (and within the limitations of the organism's sense powers proportioned to the environmental influences upon its body overall) are what the protosemioticians of Poinso's era called "formal signs" (where "sign" carries the more specific sense of "sign-vehicle"), in contrast to the material objects or aspects thereof experienced as "instrumental signs" in deciding what was safe (+), what dangerous (-), and what safe to ignore (\emptyset) for the purposes of the given animal's life. The signs instrumental in this sense depend upon the formal signs; but if the formal signs were the onset of signification, we will see, there would be (as Poinso indeed pointed out⁴) little to no difference between the semiotic of John Poinso and the epistemology of René Descartes.

For *prior to formal signs*, we will see, there are in external sensation already a *first-level of instrumental signs* which have their being triadically in no other way than as signifying, even though they come into being dependently upon the dyadic interaction between the animal body and its physical surroundings, and so reduce neither to material realities on the side of the environment (as did the foundations of instrumental signification in the original formulations of Augustine⁵) nor to

⁴ Poinso 1632a: 312/2–6.

⁵ Discussed in the first volume of the trilogy in which the present volume is second, namely, *Augustine and Poinso. The protosemiotic development* (Deely 2008/9).

representational realities (*species expressae* or *conceptus*⁶) on the side of the organism sensing. So the more commonly recognized “instrumental signs”, which are *posterior to formal signs* and succeed to reveal something of the physical world in its independence of the interaction between the animal body and the surrounding stimulants of that body’s sensations (something of a mind-independent order even if within the Umwelt, such as clouds portending a storm or smoke portending fire), are in fact not even second-level instruments of signification but rather third-level. Just as formal signs are (analytically and ontologically) a *second-level* of signification called into being by the *first-level* instrumental signs of proper and common sensibles, so the *third-level* of signification where perceived material objects themselves become signs within experience of “what to expect” within the physical environment itself (insofar as it has come to be manifested within the Umwelt) could not come to be except on the basis of the formal signs which objects as capable of expressing interpretations presuppose. For there can be no second-level instrumental signs without there being already formal signs which make these higher level instrumental signs to exist objectively as well as physically in order to *further* be signs for the animal.

Objects perceived are second-level as instrumental signs, yet are actually within awareness third-level expressions of semiosis, presupposing not only the instrumental signs of sense (proper sensibles revealing common sensibles revealing locations, movements, etc.) at a first-level, but also the mental other-representations which organize at a second-level the complex of sense data into objects for animal interaction. These objects, then, already products of a second-level semiosis within the animal, *already significates*, notice (an important fact which the term “object” conceals), *in turn* further become signs in the ongoing experience of the animals. So formal signs presuppose instrumental signs at the first level, but *only second-level instrumental signs* presuppose formal signs. So, depending upon what one wishes to emphasize, we can speak of first-level and second-level instrumental

⁶ The famous “terms without equivalence in modern philosophy”, as Maritain said (1959: 115), and as I have explained at length in *Intentionality and Semiotics* (Deely 2007: esp. chap. 4).

signs, or of first-level and third-level instrumental signs, reserving the qualification of “second-level signification” for the sign-vehicles we call today “psychological states”, the “*passiones animae*” of Aristotle’s semiotic triangle,⁷ if not of Descartes’ treatise of the name (*Les Passions de L’Ame*) in 1649.

This is an important point, an extremely important point; and it has a side as amusing as it is important. For of those few authors of the 20th century who made something of the notion of concepts as “formal signs” — such as Mortimer Adler, John Cahalan, Yves Simon, Henry Veatch, John Wild, Armand Maurer, to name only a few — their concern was always and only to point out the dependency of instrumental signs upon formal signs, thinking by this device to have found a basic argument in favor of “realism”. Turning to concepts as a way to vindicate our ability to know being in the order of *ens reale* is certainly necessary for the development of ideoscopic science, yet to rely on such an analysis *first of all* in the cenoscopic order one has to overlook the fact that it is precisely the involvement of concepts alone that makes idealism in the modern sense possible in the first place, and possible only as a *misinterpretation* of the data prescissively provided by sensation in the first place! Yet these late modern authors familiar to some extent with the Latin notion of *signum formale* spoke with almost a single voice in claiming that concepts are “that by which” (“*id quo*”) we know things, including things which become signs, whereas things are “that which” (“*id quod*”) concepts make us know. This simplified picture of the nature and function of concepts as formal signs certainly permeates the 20th century literature of Thomistic thought.

But it is an oversimplification, in semiotic terms, egregious and prevalent enough to deserve an identifying name: *the quo/quod fallacy*, I have termed it, to the horror and resistance of my many colleagues who have fallen victim to the oversimplicity of its charms.⁸

⁷ Aristotle c.330bc, *Peri Hermeneias* (*On Interpretation*), 16a3–8.

⁸ Deely 2007: esp. chaps 5–7. From this work an independent article on “The Quo/Quod Fallacy in the Discussion of Realism” should be published in the professional journal literature.

For concepts are not “that by which” we know things, not necessarily.⁹

⁹ What properly has the title of “that by which” we know things, in contrast to concepts as “that on the basis of which” we interpret and elaborate upon things known, is the *environmental stimulus itself as specifying a sense power to whatever awareness it achieves*. And this stimulus “by which” (“*id quo*”) is not at all a formal sign, as Maritain mistakenly once considered it (1924: 56, 63, *et alibi*), still less is it as Simon insisted (1955: 613–615n3; cf. 1970: 47–50) an idea “not born in the soul but in nature”. Maritain in 1959: 120n3 refers to his earlier “mistake” as an “inadvertency”. But, in the first place, Peirce, upon whom Maritain so generally depends in matters of noetic, could not have made the distinction between formal sign and *species impressa* more explicit, having devoted to it an entire question in his *Treatise on Signs*, namely, Question 3 of Book II. So the “inadvertence” on Maritain’s part must have consisted in his not at that time — i.e., as of 1924 at least — having read Peirce completely or carefully enough on matters of semiotic. But that does not explain the failure of his much later mighty struggle, in his “Appendix I. *The Concept*” (1959: 387–417), fully to overcome his earlier “inadvertence”.

I can explain this later struggle only as a by-product of what he himself called the “Cyclopean Thomism” of himself and others of the Thomist tradition, as including also the 20th century “neothomists” (Maritain 1966: 14; developed in Deely 1995: 68–96, esp. 80ff.), with their failure to understand the objective role (not the psychologically subjective role) of *ens rationis*, “non-being”, in the experience of being. (Maritain’s 1966 remarks apropos of human freedom and the problem of evil bear precisely on the role of *ens rationis* — as *non ens* by contrast with *ens reale* — in human activity, which is exactly where metaseiosis and semiosis intersect as anthroposeiosis, whence the problem is more general than the question of evil, and bears further upon the range of goods only to be achieved through the exercise of human freedom. It is in this more general perspective, too, then, that “the paths of non-being — once one has, by a kind of inverted intuition, become conscious of it and of its formidable role in reality — are as difficult as those of being”, as Maritain 1966: 32 puts it; for (*ibid.* 14) it is precisely “the perspective of non-being with the dyssymmetry it implies” that the action of signs requires us to come to terms with, the very points Peirce made in his First Preamble to his *Treatise on Signs*, as again in the opening lines of Book I, Question 1.)

Far more than an inadvertence, Maritain’s original conflation of the root notion of *species* with the notion of formal sign was radicated in turn in the failure (cf. Maritain 1959: 90–100, “Thing and Object”) finally fully to realize — but this is a general modern failing, hardly unique to Maritain — that object qua object bespeaks always a relation as terminating (the terminus of a relation to a finite knower), whereas thing qua thing may or may not be a terminus in such a relation. Like almost every thinker before him, certainly the whole of mainstream modernity (the main exceptions are only, on the early side, John Peirce, and, on the late side, Charles S. Peirce), Maritain never quite fully attains to the grasp that signs ordinarily so called (particular objects we can hear or point to) are necessary to the being of signs indeed as providing the supporting *fundamentum* of the triadic relation in which the being proper to signs formally consists, but that it is the *triadic relation itself which is the sign’s proper and formal rationale* (Peirce’s words, 1632: 154/27–29), not the vehicle upon which that relation depends as, so to say, its “launch pad”.

Concepts are “that on the basis of which” we know objects *constructed and interpreted as this or that* in the order of fact or fiction,¹⁰ and what

What sets the case of the *species impressa* (or stimulus initially specifying the sensory awakening of awareness respecting the surroundings) apart from the case of formal and instrumental signs alike, is that these last (formal and instrumental signs) have as sign-vehicle subjective features of being (psychologically subjective in the formal case, physically or “materially” subjective in the instrumental case), whereas the sign-vehicle in the case of *sentire* is not the *species impressa* conveyed in a dyadic causal interaction, but rather *the intersubjective relation itself* correlatively to the ‘species’ (in contrast to every mode of subjectivity as such which might found a sign as either “instrumental” or “formal” in the traditional senses of those terms) as *terminating in a proper sensible, which blossoms as a triadic relation revealing common sensibles* as significates along with the proper sensibles in the objective order for the animal sensing, and then among the common sensibles as foundations of the *Umwelt* which perception and intellection will complete objectively in their turn. Common to both first and second-level instrumental signs, then, is that they depend upon objectification of their vehicle in order to attain signification, whereas formal signs are vehicles of signification before being themselves objectified in any way.

Whence Maritain’s attempt to insist upon an equivalence for “quo” as “pure means” — in the expression “quo” for the work of *species impressa*, and “quo” in the expression “in quo” for the work of the *species expressa* (1959: 393, text and note 2) — conflates two precissively and importantly distinct notions. First, there is the notion of formal sign (*species expressa*), concepts as specifying our awareness of an object which may or may not itself belong to the order of *ens reale*. The “quo” function here does not necessarily present something in the order of *ens reale*. Second, there is the notion of sensory stimulus (*species impressa*), as specifying which features among things precisely in the order of *ens reale* and physical interaction demand an initial objectification. The “quo” function here does necessarily present something of the order of *ens reale*. Whence it is not in their respective “quo” functions that *species impressae* and *species expressae* coincide as regards the order of *ens reale*; it is rather and simply in their common function as *forms of specification* that they overlap; but this function is restricted to the order of *ens reale* in the *species impressa sensibilis*, while it extends also to the order of *ens rationis* in the *species expressa*.

It is often the case indeed “that the etymology of words is a mediocre means of teaching us about the essence of the things signified by them” (Maritain 1959: 172n3, ¶2 opening), but in this case the etymology of “species” as a “specifying form” provides precisely the key needed to unlock that meaning of the Latin “species” as a term of *cenoscopy* which not only “has no equivalent in our modern languages” (Maritain 1959: 115; see expansion in Deely 2007: chap. 4), but which also provides the underlying commonality of the two related expressions, “species impressa” and “species expressa”, formed from it. “Species impressa”, on the one hand, designates an intentionality (a relational involvement of otherness) which first arises wholly in the order of *ens reale*. “Species expressa”, on the other hand, designates an intentionality which has gone beyond the order of *ens reale* to include *ens rationis* indifferently in the order of *Umwelt* as objective world.

¹⁰ See Poinso 1632: *Treatise on Signs*, Book II, Question 2, “Whether a concept is a formal sign”, 240–253.

makes these objects *partially include* "things" existing independently of being known, when they do, is not at all the concepts as concepts but the concepts as themselves initially formed on the basis of perceptions deriving ultimately from sensations as revealing characteristics of bodies through the causal interactions resulting in relations among proper and common sensibles which preclude (by antecedent) so much as the possibility of an involvement of *ens rationis* in the preliminary objectification.¹¹ Just as sense selects but does not interpret, so concepts, alike at the perceptual and the intellectual levels, have as their very first function and *raison d'être* the interpretation of what the outer senses have selectively introduced into awareness: the nascent objectivity of sensation becomes the perceptually and intellectually interpreted objects of experience. Only by misinterpreting the data of sense as "ideas" (in the terms of Descartes and Locke), or as a "phenomenal veil" (in the later terms of Kant), missing the distinction between selective vs. interpretive awareness, do we open the way to the mainstream modern idealism according to which mental construction enters into the first moment of objectification and permeates it throughout. On this point as their shared underlying assumption for epistemology, there is not a dime's worth of difference between Descartes, Locke, and the synthesis Kant offers of the two.

That sensation, this cognitive level of objectification prior to the possibility either of concepts or of instrumental signs in the traditional sense of material objects which are objects before being signs,¹² *is itself already a manifestation of semiosis*, requires a mature reflection upon the fact that the original general awareness of sign expressed in Augustine, no less than the original late scholastic distinction of instrumental signs

¹¹ See Poinso 1632: *Treatise on Signs*, Book I, Questions 5 & 6, "Whether to signify, formally considered, is to cause something in the order of productive causality", 193–203, & "Whether the true rationale of sign is present in the behavior of brute animals and the operation of the external senses", 204–215; and Book III, Question 2, "Whether there can be an intuitive cognition, either in the understanding or in exterior sense, of a thing physically absent", 304–333, esp. 309/47–312/6, 313/1–318/20, 318/21–321/6, 321/7–323/35, where the argument is carried into theological areas worthy of Descartes' own meditations.

¹² See Poinso 1632: *Treatise on Signs*, Book II, Question 1, "Whether the division of signs into formal and instrumental is univocal and sound", 223–239.

from formal signs (only the former of which fits Augustine's original formula proposed for defining sign in general, as we saw in Volume I of our "postmodernity in philosophy" Poinot trilogy), was an awareness focused primarily on sign-vehicles and only secondarily on the signs themselves depending upon those sign-vehicles.¹³ A sign-vehicle is whatever element of the three a sign-relation — i.e., the sign in its proper being as triadically unifying in semiosis three distinct factors, only one of which need participate directly in the order of *ens reale* — depends upon in its suprasubjectivity as presenting what is other than itself. If that element (the "foreground element of other-representation", as we may say; the "representamen", as Peirce will call it) is a material reality outside of our own subjectivity, such as a sound or mark or environmental phenomenon, then it is that vehicle originally termed an *instrumental sign*. If that element is rather a psychological reality inside of our own subjectivity, then it is that vehicle originally termed a *formal sign*.¹⁴

But the vehicles of instrumental signification at the *sentire* level precursively considered are themselves *intersubjective products* — relations as intersubjective — of dyadic interactions between organism and environment. Thus the "proper sensibles" of cenoscopy, wrongly termed "secondary qualities" by the early mainstream moderns¹⁵ and dismissed as creatures of *entia rationis* or "mental representation", are *anything but entia rationis*. These qualities — differentiated light (color), sound, odor, flavor, texture — do not exist independently of sense

¹³ See Deely 2008: *Augustine and Poinot. The protosemiotic development*, esp. sections 6–6.4.2.

¹⁴ "The word 'sign', when applied to the concept," Maritain notes (1959: 389), may not "leap to the tongue", yet inexorably it "marks a step forward in technical exposition because, in the case of the concepts, it obliges one to definitely exclude the notion of 'instrumental sign', which the current usage of the word 'sign' tends to evoke."

¹⁵ I say "wrongly termed", only after having demonstrated in detail that the early modern shift from "proper/common" to "primary/secondary" was not merely an inversion of the earlier Latin scholastic standpoint, but the introduction of a new standpoint which had idealism as its unconscious consequent by the very terms of its introduction: See Deely 2001: "The qualities given in sensation: a comparison of medieval and modern treatment", 522–535. Resumed in chap. 8 below. Cf. Henle 1982.

awareness, it is true (they are not *ens reale* in that sense); but neither do they exist dependently on that awareness alone (they are not *entia rationis* in that sense): they are exclusively (or preclusively) neither “epistemological” nor “ontological” in the modern sense of these terms. They exist wholly and only as indirectly revealing *in consequence of a causal interaction* the properties of matter on the side of the environment stimulating the organ vis-à-vis the properties of the material organ responding by giving rise to the sensation.¹⁶ *These relations*, fulfilling irreducibly the requirements first laid down by Aristotle for relation as a distinctive (an intersubjective) mode of *ens reale*, are what reveal to the sensing organism shapes and movements and positions (the qualities called cenoscopically “common sensibles”, because revealed by more than one sense channel, but which the moderns termed simply “primary qualities”) of features of the organism’s surroundings. So subsumed into a triadic relation, the proper and common sensibles together become “instrumental sign vehicles” more originally than the perceptual phenomena that Augustine focused upon, even though they do not exist subjectively as themselves material realities external to the organism in the manner that Augustine’s original definition of sign called for, and that the later scholastic “formal/instrumental sign” terminology presupposed. At this original or *first level* of instrumental signification, the proper sensibles as sign-vehicles are not internal to the organism sensing but are properly constitutive and foundational parts or elements of its Umwelt as arising through physical environmental interaction, yet neither are they reducible to qualities “existing” in that environment prior to and independently of the causal interaction constituting proper sensibles. By contrast, *formal signs* are psychological qualities or elements of the organism’s subjectivity, its Innenwelt, precisely as founding (in contrast to being) relations to what is suprasubjective to the organism, its Umwelt. By contrast again, the objects of the Umwelt, as suprasubjective to the organism but subjective in their

¹⁶ Thus, for example, a “white” shirt under one lighting is a different color under another; what appears “red” to a normal human eye appears otherwise to a so-called ‘color-blind’ person, or to an organism with an organ of sight differently constructed than is the human eye, etc.

own right insofar as they are constituted from environmental factors of *ens reale*, become a *second-level* of instrumental signification (however, historically speaking, this second level was the first level explicitly recognized in the advance of semiotic consciousness).

And signs instrumental at this second-level of instrumentality, notice, will not only be material objects such as smoke and clouds, but can equally be behavioral patterns (interaction patterns within the physical world) apprehended by whatever means — visual, auditory, tactile. These patterns, in the social as also the predatory life of animals, will have the effect of establishing *customs* with the being of signs, behavioral manifestations of semiosis within bodily interactions which have their dyadic side but which will include, on the side of triadicity, semiosis, and a semiosis extending, in the case of human animals, even to the species-specifically distinctive means of communication we call “linguistic”.

In summary at this point, then, we see that there are two levels of instrumental signification. The first level is external sensation prescissively considered, as we will look into in our next chapter, which cannot be objectively without being by logical priority and simultaneously significative as well. The second level is sense-perception, incorporating but transcending sensation as such, where the signification is logically prior to the objects perceived but simultaneous with them and hidden. The result, at this second level, is that objects can be (and normally are) apprehended without any realization whatever that the objects perceived are *already significates*, regardless of whether or not they are also things. So, initially at least and, as it were, aspectually, the “objects” of sense-perception can be apprehended without necessarily being apprehended as sign-vehicles of something to be sought or avoided (in this sense the category of “ \emptyset ”, as occasionally prior to “+” or “-”, is perhaps the initial category of second-level instrumental signs). Yet objects signified on the basis of formal signs (themselves unnoticed as other-representing according to their very existence as provenating relations to objective termini) normally and quickly become through experience sign-vehicles in their own right of ‘more than themselves’ — as when the buildings on a new campus soon enough become familiar to us and guides as to what path to take, etc.

This second instrumental level over and above prescissive considerations of sensation as such (over and above, that is to say, the level of bare sensation), *presupposes the action of formal signs*, ‘mental representations’, or ‘psychological states’, in the making present of objects surrounding us. These objects surround us both physically, in the case of objects present-at-hand, and psychically, in the case of absent (or even mistaken) objects which are yet part of our world of present concern. All these objects, at this level, are knowable in their physical absence as well as when one or other of them is physically present-at-hand. “Formal signs”, in the old terminology, or psychological states, as we would say today, make the objective presence in physical absence possible; and here the main point is to see *how*.

We know that physical relations come and go in the course of interactions. A parent ceases to be a parent if the children are all dead; etc. But in the psychological order the matter is cenoscopically quite otherwise: we cannot have an idea which is not *of* something; we cannot have an awareness which is not accompanied by a feeling *of* some sort; etc. Thus psychological states, “*passiones animae*” or passions of the soul, as qualities or “characteristics of an individual”, differ from other physical characteristics in that the latter, but not the former, only contingently give rise to relations. This is the meaning (at least according to Poinso) of “intentionality” as a distinctive feature of psychological states: intentionality bespeaks the condition of those features of real being which cannot exist except while giving rise to suprasubjective relations (with their corresponding termini). Such features contrast with features of real being that serve as foundations of relations only contingently upon a further subjective being also existing on the side of the termini of the relations in question.¹⁷

I cannot kiss my lover unless she is physically present at hand, and she cannot be thus present at hand unless she is actually existing subjectively. But objectively, I can think of my lover not only when I

¹⁷ This is not simply the modern notion of ‘intentionality’ familiar in phenomenological circles after Brentano and Husserl, but a rather richer notion, as I have elsewhere (Deely 2007) set forth in technical detail. See also Poinso 1635: Q. 6, Art. 2, 14–24; etc.

can see and touch her, but when she is far away and out of sight, even when she has died and can never be present to me otherwise than purely objectively any more.

We see then, yet again, that subjectivity and objectivity are not properly speaking opposed, but can in fact coincide: the very same lover I was thinking of yesterday is in my arms tonight. But yesterday she was present to me only by way of (other) representation, today by way of sight, touch, and hearing — self-representation. What is the difference? The difference is in the relations by which one and the same object which exists subjectively also as more than an object is made present objectively here and now. For here and now the lover *represents herself* in my awareness *along with* the representations by which I made her present yesterday; yet in both cases, yesterday and today, her *objective* presence is as terminating relations of my awareness. The difference is that today, unlike yesterday, through the involvement of sensation, the relations of cognitive presence involve also the physical presence by which the object in question exists as more than merely objective.

Aquinas and Poinset explain this difference (as did Scotus between them) by distinguishing between cognitive powers which do and powers which do not make their object as a self-representation present on the basis of other-representations. Powers which do not make use of other-representations are the powers which, when stimulated by a present thing, respond by becoming aware of that thing in its physical being — so that the physical reality as such is rendered objective or 'known', apprehended 'in its self-representation' — as terminating the relations of which the stimulus is the foundation. The result is that, insofar as such cognitive powers are involved, the source of the stimulus comes to *represent itself* in the awareness of the one stimulated: the object and the thing in its subjectivity as an *ens reale* coincide in this level of cognitive apprehension.

But the objective experiential coincidence of object and thing could happen without my recognizing the woman specifying my sight, hearing, and touch as the familiar and longed for lover: this happens, in Alzheimer and other cases! Thus, in order that I recognize a

person, an interpretation on my side is necessary, and this is where the "other-representations" of yesterday come into play today. Here, if we do not distinguish the *self*-representation of thing as object from the *other*-representation of the idea as sign of the object, as Descartes did not do, we will face the modern conundrum of the physical reality of things as "external" to the world of objects "as known". This is the truly fatal step along the way from nominalism to idealism, the veritable crossroad of signs and ideas.

If we grasp not only that representation is essential to objectivity in its contrast with subjectivity, but realize also *that self-representation is a form of objectivity compatible with subjectivity*, as also is other-representation, while realizing at the same time that *other-representation*, not at all *self-representation*, is the mode of being essential to "ideas" (concepts and cathects) as *passiones animae* or subjective qualitative states of the lover, *then we are in a position* to understand how one and the same thing physically existing as a subjective individual can exist *also* as an object, indifferently (as object, not as subject) when it is present to hand and when it is only longed for in absence.

But this indifference to subjectivity on the part of objects as objects, i.e., on the part of objects as terminus of cognitive and cathetic relations founded upon psychological states (the *passiones animae*), is possible only on three conditions: if 1. psychological states are distinctive in necessarily (and not just contingently) giving rise to relations; and 2. relations in their essence as "being toward another" (suprasubjectivity) or *esse ad* pertain equally to the orders of *ens reale* and *ens rationis*; and 3. things as objects exist as terminating relations indifferently whether — as circumstances, not the relations themselves, determine — the relations shaping the cognition and cathexis are mind-dependent or mind-independent relations (for one and the same relation can be either, depending upon the circumstances of its realization within apprehension).

Ideas are mine or yours. They are every bit as subjective as the color of your skin or the shape of your nose. But objects are always public in principle, whether they are real or unreal. If objects as such are always termini of relations and termini of relations have their reality

as termini from the relations themselves regardless of subjective considerations, and if relations are always suprasubjective in their proper being, while ideas exist only when and as serving to found relations to objects, then we are in a position cenoscopically to understand how ideas, even though they are as subjective qualities, yet succeed to make present to us objects other themselves (and ourselves). Since relations as such are indifferent to being *ens reale* or *ens rationis* according to circumstance, we are in a position also to understand cenoscopically how the objects of our apprehension can also be things existing independently of being objects (and indeed of our awareness) in the world of things. Just as “far or near a son is the son of the father in the same way”,¹⁸ so “near or far an object which is also a thing is an object in the same way” — at least at the levels of perception and understanding as superordinate to sensation.

¹⁸ Poinsot 1632a: 85/11–12: “eodem enim modo est filius sui patris filius distans et indistans”.



Chapter 7.

Sensation Cenoscopically Considered

What is the secret to the whole matter of objectivity? Objectivity is the existence of a realm of awareness wherein the *other* becomes manifest to the self, and even the self becomes an object to — aware of — itself. What is objective exists *both* as partially coincident with while at the same time transcending the sensible aspects of the material surroundings, *and* as dependent *throughout its full extent* upon the action of signs or semiosis (within the context always of triggering and sustaining and presupposed dyadic interactions of causality as ‘brute Secondness’, to be sure). The secret to this whole matter lies in understanding how sensations are a web of naturally determined sign-relations without themselves involving in any direct way the mental “other-representations” that prescissively differentiate *alike* perception and understanding within the existential whole of awareness — the animal Umwelt — involving external sensation.

In other words, the secret to objectivity as able to reveal to human understanding the nature of things in themselves lies in exposing the mainstream modern assumption that the whole of human knowledge depends upon the subjective formation of mental imagery as the seamless basis of objectification.¹ Descartes, taking ideas as his

¹ Here, dear reader, recall to mind “the quo/quod fallacy” discussed in chap. 6, beginning on p. 55–56, text and footnote 9 esp., as (p. 55) “an extremely important point”, with “a side as amusing as it is important”.

very starting point (“ideas”, Descartes reminds us toward the end of his *Meditations*,² “strictly speaking,” are “the only immediate objects of my sensory awareness”) had no alternative to making this assumption. But Locke, in launching “empiricism” as the alternative to Cartesian “rationalism”, was not so bound. By beginning from, rather than by challenging, this fatal rationalist assumption,³ however, Locke placed modern empiricism on the same nominalist fork in the road that Descartes had taken, the fork wholly separating objects from things.

From this point of view — the decisive point of view of a common standpoint as *point de départ* — between rationalism and empiricism in the early modern mainstream development of philosophy (as distinct from the development of science in the modern sense) there is, as the saying goes, “not a dime’s worth of difference”. When Kant made his synthesis of modern rationalism and empiricism in his *Critique of Pure Reason*, however, both in 1781 and in the 1787 second edition, he compounded Descartes’ original mistake of not examining the underlying assumption concerning the role of representation in sense knowledge precissively considered, but rather made his synthesis quite on the basis of the assumption that Descartes and Locke shared, namely, that the whole of knowledge is based on mental self-representation, “ideas”. Not surprisingly, therefore, did Kant wind up with the same “problem of the external world” wherein the things in themselves are forever unknowable in their subjective constitution as existing independently of our awareness of them. Luckily for the modern development of ideoscopic science — science in the modern sense — the mainstream moderns’ philosophical assumption

² From ¶6 of his “Sixth Meditation” on “The existence of material things and the real distinction between mind and body”, the meditation which concludes the work, 1641: 52. Cf. Locke 1690 (December of 1689), “Introduction”, §8.: “... I must here in the Entrance beg pardon of my Reader, for the frequent use of the Word *Idea*, which he will find in the following Treatise. It being that Term, which, I think, serves best to stand for whatsoever is the Object of the Understanding when a Man thinks, I have used it to express whatever is meant by *Phantasm*, *Notion*, *Species*, or whatever it is, which the Mind can be employ’d about in thinking”. (Developed in Deely 1993.)

³ Locke 1690: “Introduction” §8, Book II, §s 1–3, and *passim*. Deely 1983.

concerning their misbegotten “epistemology” was without foundation, as we shall now proceed cenoscopically to show.

Understanding or ‘intellection’ has in common with perception the need for mental imagery to present its proper object. In the former case the function is to provide some interpretation of the surroundings according to “what is” or the being of things. In the latter case the function is to interpret the objects of sense according to what among them is to be sought, what avoided, and what safely ignored (and of course, in the human case, this latter perceptual evaluation proper to animal nature involves itself with, occurs simultaneously with, and influences from within the former, intellectual interpretations). Yet these representations are not self-representations, not themselves the objects presented, but much rather are they other-representations whereby the object in its aspect of sensory self-presentation as an environmental element actively present here and now is *interpreted* or *further-represented* by way of the psychological states functioning as *vehicles* of signification, not at all as objects signified.

The psychological states give rise to relations terminating at objects real or unreal, but always other than the psychological states themselves, the “ideas” and “feelings”, of the “knowing subject”. These “*passiones animae*” sustain the relations subjectively indeed, but without reducing the relations themselves as suprasubjective to the sustaining subjectivities, and hence too without compromising the *status of the termini* of the relations as irreducibly “other” than the subject aware via its cognitive and cathectic relations to the objects of which it is aware. (And the status of the terminus as terminus dependent upon the relation itself, keep in mind, is 100% compatible with that very terminus itself having additionally a subjective status in the order of *ens reale* when circumstances permit.)

This need for interpretive imagery by way of other-representation is what sets both perception and intellection apart from sensation precisely considered. Where sensation is *selectively revelative* of the physical surroundings, perception and intellection are activities *interpretive* of those same surroundings-as-revealed; but in the case of intellection, the interpreting of the surroundings need not be wholly relative to

the organism knowing (as +, -, \emptyset), by reason of the capacity for understanding to go beyond the sensible qualities of the sensible objects both by way of mathematical abstraction and by way of considering the sense-perceived objects as things existing in themselves according to characteristics and dependencies not directly available to sense — or perhaps not available to sense at all, as in quantum mechanics or in the dependence of finite being upon a being purely actual.

But however far understanding may be able to reach beyond animal sense perception, it remains that understanding has in common with that animal sense perception its origin in the initial objectification of our surroundings that sensation provides, both prior to and as a basis for the respective interpretations of perception (generically animal) and understanding (species-specifically human).

This was a point that the early mainstream moderns missed in their rush to replace cenoscopy with ideoscopy, a point lost to sight in the enthusiasm for the realization at last of the indispensable role that mathematics has to play if ideoscopic knowledge is ever to reach anything like its full potential as the *new science*.

On the RATIONALIST side, it may be said, the question of whether external sensation — prescissively considered analytically in its contrast with perception — directly involves mental imagery was a question effectively ignored or never even raised. The whole rationalist approach tended to bypass or even preclude this question, since the chosen *point de départ* of its partisans was from an intellectual standpoint that no doubt involved interpretive imagery along with mathematical abstractions in particular. When Descartes wrote⁴ that “at least I know that material things are capable of existing insofar as they are the subject-matter of pure mathematics”, he was only echoing the view already stated by his older contemporary, the great Galileo:⁵

Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language

⁴ Descartes 1641: Meditation Six.

⁵ Galileo 1623: 237–38.

and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circles, and other geometric figures without which it is humanly impossible to understand a single word of it; without these one wanders about in a dark labyrinth.

On the EMPIRICIST side, less excusably, since their whole point was that Descartes and the rationalist tradition after him failed to take proper account of the role of sensation in relation to human understanding, the question of whether sensation itself directly depended upon mental imagery yet again failed to be posed. Thus, well into the modern development, Hume could claim that⁶

no man, who reflects, ever doubted, that the existences, which we consider, when we say, **this house** and **that tree**, are nothing but perceptions in the mind.

So ignorant a claim may be counted among the first fruits of Descartes' advice to ignore the Latin philosophers on the ground that⁷ "there is a considerable danger that if we study these works too closely traces of their errors will infect us and cling to us against our will and despite our precautions".

Yet from the time of Aquinas, who died in 1274, to the time of Poinsoot's systematic *Tractatus de Signis* in 1632, the question of sensations vis-à-vis "perceptions in the mind" had been explicitly debated. The early modern mainstream view common to Empiricists and Rationalists alike, to wit, that all awareness terminates in images produced by the mind, was not only doubted by reflective minds but most often rejected outright by, as Poinsoot put it,⁸ "those competent to treat of the question". The view that external sense already depends upon an image, Poinsoot pointed out, is at odds with our direct experience of the difference between physically present objects with which we

⁶ David Hume 1748: 152 par. 9. Compare with John Poinsoot 1632: 311/23–312/6. Detailed comparative discussion of Poinsoot and Hume on this point can be found in our earlier volume on *Augustine and Poinsoot*, Sections 12.7–12.9.

⁷ Descartes 1628: 13.

⁸ Poinsoot 1632a: 310/8–9: "nostra conclusio communior est inter auctores".

can interact causally as well as cognitively (objects which are at the same time things in the surroundings) and our contrastive awareness of objects not physically present as things here and now. The view that external sense depends upon an image puts the things of the environment behind a seamless phenomenal veil, placing them themselves forever beyond our cognitive reach. Ironically, then, we may say in hindsight that Poinso's argument of 1632 against the view that sensation terminates in the production of mental representations is quite precisely that such a view would imply the conclusion of Kant of 1781 regarding the unknowability of the things of experience in their subjectivity, that is to say, in their proper being as subjects of existence independent of our awareness of them!

In arguing as he did, Poinso drew in particular on the earlier analysis of Aquinas⁹ that the positing of images as the basis for our awareness of objects in sensation prescissively considered is quite superfluous when we consider that there is need in the case neither to supply a basis for overcoming the physical absence of the object sensed nor to overcome a disproportion between the way the object is apprehended and the way it is present. In perception, an object is perceived, say, as a clock, whereas sensation presents only shapes and colors: there is a disproportion between the apprehension of shapes and colors and the seeing of those same shapes and colors as constituting a timepiece, the overcoming of which requires an interpretive mental representation. The same is true when I apprehend the clock in memory, or desire to find where it has been placed: I am guided by an interpretive mental other-representation. But in sensation rather is something *forced* upon my awareness, providing an awareness of its objects only as they are *both* physically present here and now *and also* (especially¹⁰) precisely as they are active upon the organ of sense here and now.

⁹ E.g., Aquinas c.1273, *Summa theologiae* 3.76.7c: "corpus visibile per sua accidentia immutat medium ... ut sic ab aliquo corporali oculo videri possint" — "a visible body affects the environment by its own characteristics ... so as to make them visible to a bodily eye". For the general discussion, see Deely 2001: 345–347.

¹⁰ Maritain 1959: 118n1: "even if a star has ceased to exist at the moment the light reaches us, it is at that moment present by its action."

In sum, Poinset's argument is that prescissive analysis of our experience provides no cenoscopic grounds for believing what Hume, following both Descartes and Locke in this particular, assumes concerning the role of mental representation in sensation as such within sense-perception, i.e., sensation as analytically distinct from the perceptual interpretation or 'overlay' and logically prior to it. Besides the groundlessness of the assumption that the whole of awareness, from its first sensory beginnings, is by way of mental representations, the assumption has the further inconvenience of creating an insoluble "problem of the external world"¹¹ (whence too Sebeok's apt designation of the problem as a "quasi-fallacy"¹² from the outset of modernity on its philosophical side).

For given the assumption that the whole of human awareness from its animal sensory beginnings is by way of mental representations, the assumption that "ideas" (to use Descartes' own words from Meditation 6)¹³ are "strictly speaking the only immediate objects of my sensory awareness", what follows? What follows is that "reason" (as Hume put the assumption's consequence¹⁴ well before Kant declared the things-in-themselves to be 'unknowable') "can never find any convincing argument from experience to prove, that the perceptions are connected with any external objects". By contrast, absent the assumption in question, reason provides very good considerations from experience for *not* adopting the signature modern assumption in the first place, but for thinking rather that *sentire* differs from *phantasiari* and *intelligere* alike precisely in this: that the activity of sensation terminates in the objectification not of something represented *within* the sense but of a thing existentially posited *independently* of the sense. This argument, that the assumption of imagery as essential to 'sentire' is gratuitous and counter-productive, provides historically an

¹¹ Poinset 1632a: 312/2-6.

¹² Sebeok 1984: 20.

¹³ See text at note 2, p. 68 above.

¹⁴ Hume 1748: *An Enquiry concerning Human Understanding*, Section XII, "Of the Academical or Sceptical Philosophy". Part I, from par. 14 of the 16 unnumbered paragraphs comprising this Part.

interesting and particularly instructive illustration¹⁵ of how the same material of experience can be transformed differently in the hands of different philosophers, while providing at the same time a common measure for the comparative soundness of their differing views.

Taking the wrong fork in the realism/nominalism dispute — that is to say, the fork leading to the complete separation of objects in awareness from things in the world — on the part of the mainstream early moderns was no doubt bound up somehow with the growing realization of the indispensability of a more systematic use of mathematics in order to advance ideoscopic knowledge. For it had been well known since the days of Plato's academy¹⁶ that the objects of mathematics as such are not accessible to sense. Jacques Maritain has opined that the special nature of the modern idea for science to involve a mathematical translation of sense phenomena combined with the natural propensity of human understanding toward being tended to generate a kind of "natural illusion" which leads the modern thinker to "mistake the quantitative aspects he is considering and the mathematical entities he is manipulating for actually physical causes and principles".¹⁷

Be that as it may, it is of a certainty that the clear realization of the indispensability of mathematics to the full establishment of ideoscopic advances for modern science over anything that had been speculatively achieved concerning the details of nature in medieval times is what led Galileo, for one, to prefer the approach to material objects that Democritus had proposed in ancient times and Gassendi in modern by distinguishing between primary and secondary sense qualities over the Latin medieval approach that had been developed from Aristotle by distinguishing proper from common sensibles. (Equally certain,

¹⁵ See "A Maxim for Semiotics" in the *Semiotics 1987* volume, pp. iii-v, for a general discussion of the different ways in which the maxim "nil est in intellectu quod non prius fuerat in sensibus" ("there is nothing in understanding which was not first in the senses") has been understood in ancient, medieval, and modern thought, including a reinterpretation in the semiotic line of the present discussion.

¹⁶ See "A theorem from Pythagoras" and "Let no one without geometry enter here", in Deely 2001: 32-34 & 59-60, respectively.

¹⁷ Maritain 1946: 30. But see at length Maritain 1924: chap. 6, 174ff.

though not nearly so generally recognized as yet, is the impetus that the proclivity toward idealism among the early moderns received from this seemingly innocuous but actually invidious choice of standpoint respecting the status of qualities comprising the data of sensation, as a detailed tracing of the comparative consequences of the possible standpoints reveals.¹⁸⁾

The dispute was not about what the sensible qualities exhibited by objects in experience are. Both sides were quite in agreement on a complete list of the contents of sensation: color, shape, size, solidity, texture, rest or motion, position, number or plurality, odor, flavor or taste, warm or cool, sound. Nor was the dispute about the aim of science, the doctrinal aim of cenoscopy and the scientific aim of ideoscopy alike, to determine what is the reality of the things that are in their own right, and not simply what they are in relation to us as observers. The dispute quite simply was about which items on the list are the basic ones and which ones derivative — that is to say, how to sort the list out “ontologically”, as it were.

It is true that both sides under-estimated the role of *entia rationis* in the structure of experience as an objective fabric or network of relations and apprehensions irreducible to components of the physical environment as *ens reale*. But appreciation of the role and prevalence of social constructions within objectivity, to say nothing of the establishment of *Geisteswissenschaften* alongside the *Naturwissenschaften* at which the “new physics” aimed, still lay ahead. The immediate interest of Galileo, as also of Descartes contemporaneously, was how to get a mathematical hold of the objects of experience, not in their sensible qualities as such. And for this purpose the primary qualities in the complete list of sense qualities are the ones that are based on quantity, providing as such an immediate mathematical purchase, while the secondary sensible characteristics are those based on quality (namely, color, sound, odor, flavor, warmth or coolness) and give no *immediate* hold for mathematics at all.

¹⁸ See “From sensation to intellection” in Deely 1994:73–88; but esp. “The qualities given in sensation: a comparison of modern and medieval treatment” in Deely 2001: 522–535; and Henle 1982: “The Basis of Philosophical Realism Re-examined”.

With the primary/secondary distinction thus drawn, as between what does and what does not have immediate mathematical relevance, Galileo saw the distinction in question as part and parcel of the new physics. The new physics was not the physics of Aristotle which had been based on sensible matter; the new physics was a mathematical physics, which cut below the apparent sensible qualities of bodies in motion to deal with *the quantified substantial base* that all sense qualities presuppose anyway.

This perspective, essential for the ideoscopic development of physics, Descartes simply *substituted* for the Aristotelian idea that the essence of material substance is a mixture of actualities and potentialities submitted *first* to extension in space and *thence further* to a whole series of qualities and relations making up the heterogeneity of individuals interacting to constitute the physical world. Let us simplify the whole affair, Descartes proposed, and consider extension in space as the *whole essence* of material substance, dismissing all else as subjective illusion. Hence the famous Cartesian dualism between “thinking things”, *res cogitantes*, or minds, on the one side, and “extended things”, *res extensae*, or bodies (atoms and collections of atoms, as was thought), on the other side, counting on the goodness of God to keep the two together in the world of appearances with which we have to deal.

But this substitution, on cenoscopic grounds, is gratuitous — not completely so, but in the sense of being not at all necessary to give mathematics its hold in the world of matter. In Aristotle’s view, already, there is a quantified substantial base for all of the sense qualities, presupposed in our experience of them. Here already, in the very doctrine of material substance central to the cenoscopic physics of Aristotle, is there reason for seeing how and why mathematical analysis can be applied to the world of bodies, but without any need to *substitute* the quantified base for the essence of material substance as a mixture of actualities and potentialities: for these material substances in their very being as material are *already* subjected *first* to extension in space, and thence — through and on that basis — *further* to a whole series of qualities and relations making up the heterogeneity of individuals interacting to constitute the physical world. On the contrary,

the quantified basis of sense qualities requires an abstraction to preciss as such,¹⁹ an abstraction *from experience* moreover placing and viewing matter on an ideal plane. (It is here, not in the world of bodies as such, that we encounter Descartes' *res extensae*.)

Considered in itself, nonetheless, this base of "substance quantified" then provides both an "intelligible matter" as the object of pure mathematics, and the reason why applied mathematics holds good for things in the physical environment, all the way from the number of sheep in a herd to the weight that a bridge will support and the amount of lift required to raise a body into the air. Yet substance quantified is not the whole of substance, but an idealization thereof and an abstraction from experience. An "atomic structure of matter" is not incompatible with this Aristotelian doctrine of substance *unless it be maintained that* the combinations of "atoms" involved in complex bodies precludes a higher formal unity which maintains and directs the complex whole in its complexity. The view of bodies as nothing more essentially than masses extended in space does not and could not provide an adequate standpoint for the analysis of anything like the totality of the world as experienced, for the reason that experience *begins* precisely with the interactions of material substances through the accidents mediated but not constituted by quantity;²⁰ and we become aware of the quantitative aspects of objects only on the basis of the qualitative aspects which are revealed to us simultaneously with the quantitative aspects but with a logical priority over them.

Thus the Latins divided the qualities of sense not from the standpoint of a supposed distinction between *ens reale* as harboring the primary qualities in things and *ens rationis* as the subjective realm of secondary qualities inherent in objects only as appearing in our consciousness. Poinset kept to the Latin view, dividing the qualities of

¹⁹ See "How Mathematics Applies to the Physical Environment" and "Abstraction" in Deely 2001: chap. 3, p. 141f.

²⁰ See the discussion of the various other subjective characteristics of material individuals besides substance, and the one intersubjective characteristic without which the subjective being of substance itself within an actual environment would be untenable, in Deely 2001: chap. 3, "Transcendental Relativity", p. 131, and "The Categories of Aristotle", p. 133.

sense from the standpoint of how we are in a position to become aware of any difference in *ens reale* and *ens rationis* as *equally objective* but differing only in their *subjective* status as *physically* existing. Better than the moderns, the Latins had understood in advance Berkeley's point that if the "secondary" qualities are pure mind-dependent beings, then we are without grounds for supposing that the "primary" qualities or anything else belong to an order of *ens reale* as mind-independent being.²¹

It is indeed an opinion strangely prevailing amongst men, that houses, mountains, rivers, and in a word sensible objects have an existence natural or real, distinct from their being perceived by the understanding. But with how great an assurance and acquiescence soever this principle may be entertained in the world; yet whoever shall find in his heart to call it in question, may, if I mistake not, perceive it to involve a manifest contradiction. For what are the forementioned objects but the things we perceive by sense, and what do we perceive besides our own ideas or sensations; and is it not plainly repugnant that any one of these or any combination of them should exist unperceived?

Hume, blissfully unaware of the Latin discussions of the role of sense qualities in the origin of animal awareness, including the awareness of human animals, could only repeat Berkeley's insight:²²

It is universally allowed by modern enquirers, that all the sensible qualities of objects, such as hard, soft, hot, cold, white, black, &c. are merely secondary, and exist not in the objects themselves, but are perceptions of the mind, without any external archetype or model, which they represent. If this be allowed, with regard to secondary qualities, it must also follow, with regard to the supposed primary qualities of extension and solidity; nor can the latter be any more entitled to that denomination ["primary"] than the former. The idea of extension is entirely acquired from the senses of sight and feeling; and if all the qualities, perceived by

²¹ Berkeley 1710: Part 1, Sect. 4

²² Hume 1748: par. 15 of Section XII cited in note 14 above, p. 73.

the senses, be in the mind, not in the object, the same conclusion must reach the idea of extension, which is wholly dependent on the sensible ideas or the ideas of secondary qualities.

Kant, half a century later, building upon the foundation of the common assumption of the rationalists and empiricists that there is no awareness which does not terminate in the direct formation of mental self-representations (but aware of the problem, ignored by the modern Empiricists, that *sensible* objects require to be raised to the level of *intelligible* objects in order for us to attain *scientific* knowledge of them²³), will succeed, as we saw above, in replacing the subjective idealism of Descartes and Hume with his objective idealism. "Subjective" or "objective", the mainstream modern standpoint remains *idealism* in either case, cut off in principle and forever from an ability to penetrate through the order of *ens rationis* as the veil of phenomena to anything of the order of *ens reale* according to the being proper to the things which constitute that order in its own right.

From Descartes' Rationalism to Locke's Empiricism to Kant's Transcendental Synthesis of rationalism and empiricism, it is the old problem of the far consequent of nominalism all over again! As adult is to embryo, so is modern idealism to nominalism, beginning with the denial of relation as verifiable within *ens reale*.

Had Galileo in those early days insisted on taking as primary those qualities which afforded direct mathematical purchase on objects of experience simply for the purposes of advancing ideoscopy, especially if he had accompanied this insistence with a thorough cenoscopic analysis of the logical priorities among the sense qualities prescissively considered, there might have been no problem. But by identifying those qualities alone which afforded direct mathematical purchase on objects of experience with the order of *ens reale*, he unwittingly

²³ Thus, in modern idealism, it may be said that the a-priori forms of reason are the counterpart of the problem of the "*intellectus agens*" in medieval thought. Compare Aquinas c.1266: *Summa theologiae*, I, Q. 79, art. 3, corpus and ad 3 (reply to objection 3): as regards the nature of sensible things which do not subsist except in matter, nothing is *actually* intelligible, but has to be *made intelligible* by the intellect itself. Full discussion in Deely 2007.

stepped into the trap — the “quasi-fallacy”, in Sebeok’s elegant phrase — of the external world, with Descartes close on his heels.

For the truth of the matter is that all of the sense qualities belong to the order of *ens reale* as relations brought about by causal interaction between the bodies of animals and the bodies of the physical environment surrounding them. But the sense qualities belong to that order *prior to any possible distinction of ens reale from ens rationis*. For, as we have seen, objects as *ens rationis* presuppose ideas or concepts as mental other-representations, and there is no cenoscopic reason for positing such “other-representations” (concepts) at the level of physically present sensible things acting upon the external sense organs of animal bodies likewise physically present in the environment and responding commensurately to the actions in question. The actions are themselves a matter of “brute secondness”, indeed, but they result in the thirdness whereby the environmental sources of the stimulation of the external senses become significates to or for the organism sensing. On the basis of these significates the animal will go on to form representations interpreting the sensed objectively as something to be pursued (+), avoided (-), or safely ignored (\emptyset); and the world of objects thus interpreted will, in the case of human animals (“semiotic animals”, as we will see), be *further* interpreted as constituting a world of things existing at least in part in their own right *as well as* in relation to us and our needs as organisms.

Only at *this* point in experience, in the realm of understanding as superordinate to yet occurring within sense-perception, and like that sense perception deriving ultimately from sensations prescissively considered, does the distinction arise between *ens reale* (as objects or aspects of objects which are not only objective but have a subjective existence in their own right as well) and *ens rationis* (as objects or aspects of objects which are purely objective as having no proper being apart from what they have within the order of awareness and social interaction). Other-representations require a prior contact with what is other than the knower, initially in the partial self-representation of things as objects sensed. Otherwise, where is the “other” respecting which they make representation as sign-vehicles presenting the object signified?

Without an involvement of *ens reale* as such and in the very origin of objects as experienced, there could only be *ens rationis* apprehended directly. Knowledge would not be of “an other” but of the *self alone* in its own workings — *solus ipse*, or solipsism, the far consequence logically inescapable of the initial position of nominalism denying relations as other than formed by the mind.

Peirce in effect summarized the position of Poinset:²⁴

From the proposition that every thought is a sign, it follows that every thought must address itself to some other, must determine some other, since that is the essence of a sign. This, after all, is but another form of the familiar axiom, that in intuition, i.e., in the immediate present, there is no thought, or, that all which is reflected upon has past.

That is to say: in the sensory core prescissively taken (“the immediate present”) our awareness is not mediated by mental other-representation.²⁵ Only our interpretation and development of conceptual consequences from what the sensory core reveals to us is mediated by mental other-representations. But note carefully that these “other-representations” themselves are in no wise the direct *objects* of apprehension but rather only the *foundations for* such interpretive *relations* of awareness as *terminate at the objects* represented (objects, then, which are other-representations on the side of the concepts, but sometimes self-representations on the side of things, depending upon the *circumstances* of the awareness as quite independent of the awareness itself).

Were there only objects sensed (as may occur in some of the lowest levels of animal life) there would be awareness only of partially objectified *ens reale*. But objects not only sensed but also perceived, as also objects both perceived and understood, involve always an element of *ens rationis*, minimally if only to be recognized by or located in relation to the organism sustaining the awareness. Here (where comes into play the difference between cognitive powers able to know their objects when physically absent and cognitive powers able

²⁴ Peirce 1868: CP 5.253.

²⁵ Poinset 1632a: Book III, Question 2, esp. 310/38–312/6.

partially to objectify — make an organism aware of — *only* physically present things as physically stimulating organs of external sense), and here alone, does *ens rationis* along with *ens reale* also come into being and play. But it comes into play alongside of and as entangled with, not as simply displacing, something of *ens reale* objectified in its own right (hence the accuracy of Peirce's remark of 1893,²⁶ that in the order of *ens reale* conceived as mind-independent being "things come pretty near to being real", though only God "quite fulfills the idea"). Only in psychosis and related disorders, such as heavily ideological contexts of culture,²⁷ does *ens rationis* within objectivity come to dominate the *ens reale/ens rationis* mixture and interweave constitutive of the human Umwelt (the Lebenswelt) as essential to the life of every human animal.

²⁶ Peirce 1893: CP 2.532.

²⁷ E.g., Simon 1969: 126–27: "There are some ways of being bound by the social whole and in the social whole — in other words, some forms of sociability — which give the group such a power over the nonrational faculties that a practical judgment contrary to the collective imperatives becomes physically impossible: a host of images and emotions keeps a watch on the threshold of consciousness in order to prevent the construction of such a judgment. The dream of every tyranny is to systematize this form of sociability and to establish in the soul of everyone a pretorian guard over nonrational forces in order to assure the safety of the regime and its smooth operation by destroying the deep center of all freedom, viz., the indifference of the practical judgment."

Chapter 8.

The Semiotics of Sensation

Contemporaneously with Descartes' full-scale launch upon the nominalistic "Way of Ideas", Poincot, in his *Tractatus de Signis*, had undertaken a cenoscopic analysis which showed, step by step, that, how, and why the whole of human knowledge and experience is a network of relations grounded in the action of signs, an action whereby even the dyadic relations of cause and effect producing proper sensibles are subsumed — a subsumption, as we have seen, which would not be possible were the nominalist position on relations correct — into the triadic relations wherein one element of the relation represents another element to or for some third. We may anticipate the upshot of Poincot's analysis thus: for those who consistently develop the logical consequences of their starting point when it comes to the treatment of relations, just as nominalism leads inevitably to idealism, so also inevitably realism leads to semiotics.

Now "realism" begins, as we have seen, not from ideas in the mind but from the sense-experience of things in the world as partially objectified. That partial objectification of things becomes in turn the basis for a further interpretive objectification that is more complete, to be sure. But the initial partial objectification in question occurs initially not in human understanding nor even in animal sense-perception. The initial and partial objectification of the animal's surroundings occurs

rather in sensation as such — that is to say, in sensation prescissively considered in its contrast with perception and understanding alike. The latter two — perception and understanding alike — necessarily involve other-representations, “formal signs” or ideas, interpretive of the “other” given in sensation. But the sensation itself in its (logically) prior and distinctive activity initiates the objectification of the other in its otherness, without which the realm of ideas or psychological states generally would be (as happens in extreme forms of madness) a whole practically closed on itself and leaving the self without effective contact with any “other”, leaving the self “*solus ipse*”.

The realm of objects or objectivity, thus, begins at the level of *ens reale* with a partial coincidence of objects and things. But even at this level of coincidence there obtains the distinction in principle between objects and things (between what is as contrasted with what is not necessarily in relation to a knower, an apprehensive being). Hence the same awareness which puts the knower in contact with *ens reale* does so by means of a network of relations which network, by virtue of its nature as a relational network, also opens the way to an order of *ens rationis* wherein objects no longer (or even never) present in physical reality can yet become present within cognition as publicly accessible at the terminus of apprehensive relations linking knowers with one another and with what is known, real or unreal. Cognitively and cathetically, if not physically, the deceased lover is no less a lover than the lover still alive, just as a son near or far remains the son of the parents.¹ The unreality of the Fountain of Youth did not prevent Ponce de Leon from wasting years of his mature life, nor does it prevent us from knowing what that *ens reale* unreality was that he vainly sought.

For our present purpose, then, which is to trace the far consequence of realism through the doctrine of relations, as Descartes and Kant traced together the far consequence of nominalism, the chapter of Poinso's work that most interests us is Question 6 from Book I of his 1632 *Tractatus de Signis*, “Whether the true rationale of sign is

¹ “Whence distance neither conduces to nor obstructs the resultance of a pure relation,” Poinso observes (1632: 85/8–13), “because these relations do not depend upon a local situation; for far or near, a son is in the same way the son of his father.”

present in the behavior of brute animals and in the operation of the external senses”, his “semiotics of sensation”.

“Semiotics” as the name for the doctrine of signs (knowledge developed from systematic study of the action of signs) did not exist at the time that Poinot wrote, and would not for another fifty-eight years, when Locke would first propose it in concluding his *Essay concerning Human Understanding*,² arguing against Descartes for sensation (but “ideas of sensation”) rather than introspection as the proper starting point for knowledge. (Similarly, “semiosis” as the name for the action of signs, or subject-matter that semiotics studies, would not exist for another two-hundred-seventy-four years or so, when Peirce would coin the specific usage.³) The Latin name for semiotics was *doctrina signorum*, an expression also used by Locke and Peirce as well as Poinot, and more recently suggested by Sebeok as the expression to be preferred over “science of signs”, in light of the predominantly cenoscopic character of semiotics vis-à-vis the ideoscopic overtones in modern and postmodern contexts to the term “science”.⁴ Hence the title of our preceding chapter.

Poinot took up the standpoint on sensation of the Latin scholastics, but it was not out of ignorance of the primary/secondary distinction being promoted by the ideoscopically preoccupied early moderns who were his contemporaries. Nor did he choose his standpoint as a simple matter of preference for the old against the new. Not at all. He stayed with the traditional standpoint on this matter in recognition of the fact, as we have noted, that the traditional proper/common sensible distinction is cenoscopically more appropriate to the reality of our access to objectivity than is the early modern standpoint. Even granted the surface advantage of the early modern standpoint in purchasing

² For the origins, etymology, and history of the term “semiotics”, see Deely 2003: “On the Word Semiotics, Formation and Origins”, expanded to monograph form with new materials in Deely 2004a: *Why Semiotics?* See also Deely 2006: “On ‘Semiotics’ as Naming the Doctrine of Signs”.

³ In the posthumously prepared edition of his i.1866–1913 *Collected Papers*, the earliest occurrence of “semiosis” dates to c.1907: CP 5.484; but the likelihood is that the coinage goes back earlier, perhaps to around 1883 (Deely 2001: 109).

⁴ Sebeok 1976: “Foreword”, ix–xiii. Taken up in Deely 1976, 1982: Appendix I, 127–130, and 1986a, *inter alia*.

direct mathematical access to material objects, this purchase, as we have seen, is at the cost of idealizing the objects in question abstractly from the outset.⁵ Poinso's thinking here is revealed by the fact that he did not simply resume the traditional standpoint in terms of the *ens reale/ens rationis* distinction, as his forebears had done, but he took up both standpoints alike — the standpoint on sensation, and the standpoint distinguishing *ens reale* from *ens rationis* — in order to consider the whole matter as involving both anew, and precisely in relation to the doctrine of signs as requiring a new and higher standpoint of its own.

Considering cenoscopically the experientially verified action of signs both in nature and in culture, Poinso began from the realization⁶ that the traditional distinction between mind-independent and mind-dependent being, *ens reale* and *ens rationis*, had to be consequent upon, rather than a standpoint for beginning, the analysis of semiosis. The action of signs transcends — indeed, makes possible in the first place — every differentiation within awareness of the contrast between *ens reale* and *ens rationis*, and so the point of departure for the doctrine of signs cannot be located subsequent to, let alone on either side of, that division. Considering further the ontological nature of relation as indifferent to the mind-independent (*ens reale*)/mind-dependent (*ens rationis*) distinction, and the positive content of mind-independent relations as the only content or “essence” of the mind-independent order verified indifferently and equally as *the same* in nature and in culture, he saw at once that relation alone provided a purchase, a “fixed foot”, from which to begin in earnest a walk down the Way of Signs.

The relations comprising and constituting the being of signs, as relations, exhibit necessarily the generic or common feature of all relations, namely, to be suprasubjective modes of being. The steps of analysis along this new way soon enough⁷ revealed the specific difference of sign-relations: their irreducible triadicity, or necessary unification of three elements in any given signification, any distinct occurrence of semiosis.

⁵ See chap. 7 above, esp. pp. 76–78 and note 18, p. 75, on the “hidden idealism” of the primary/secondary distinction. See Descartes' remark on material things existing, p. 28.

⁶ Poinso 1632a: *Tractatus de Signis*, Book I, Question 1.

⁷ *Tractatus de Signis*, Book I, Question 3.

Further analysis, further logically motivated steps along the Way of Signs, soon⁸ showed Poinset what more he needed in order to radicalize the doctrine of signs as experientially at work from the earliest moment when things in the course of dyadic interactions come first to play a role also as objects. He needed to thematize not simply the long-recognized fact that “common sensibles” depend upon “proper sensibles”, but the realization that this dependency is already of the semiotic nature of sign-vehicle to significate in the very nascence of objectivity. At this very dawn of animal awareness, the common sensibles as significates of proper sensibles are sign-vehicles in turn for the objective synthesis of sensation on the basis of which the animal in turn begins its interpretation of the surroundings (the move from sensations to the first concepts, percepts informed by those sensations as well as by the animal’s own ‘nature’ or ‘interests’) in terms of safe and dangerous, in contrast to merely curious or ‘neutral’ (“safe to ignore”) places and players in the game of life.

In sum, the standpoint of substance (*ens realissimum*, traditionally speaking) had to be abandoned in order to walk the Way of Signs. The standpoint of sensation presupposed for any argument about *ens reale*, while it had not originally, nor later usually, been considered in terms of its involvement with the action of signs, once it is so considered, quickly reveals that it, too, is a prospective standpoint sharing the *primum necessarium* for any hope of understanding the sign in its proper being. That “first necessity” for opening up the Way of Signs lies in a refusal to allow the alert inquirer legitimately to begin with an option exercised for or against *ens reale* in its objective contrast with *ens rationis*, for the contrast cannot exist at the level of sensation prescissively considered, any more than the sign in its proper being can be assigned an action restricted to either side of the contrast even at the levels of perception and intellection, where the contrast can exist and indeed first fully emerges.

Relation, already within sensation (itself a product of dyadic interaction directly resulting in the thirdness of an incipient environmental awareness), enables the first beginnings of zoösemiosis: *ens minimum*,

⁸ *Tractatus de Signis*, Book I, Question 6.

from the traditional standpoint of preoccupation with so-called *ens reale* and the *ens realissimum* of substance, relation now presents itself rather as *ens maxime necessarium* for the life of signs and the signs of life.

Viewing sensation from the standpoint of semiotic was neither the way in which Aristotle had first conceived it, nor yet a fully established way of treating the matter among the Latin scholastics, although there were others of Poincaré's Umwelt who had moved in this same direction, including notably his undergraduate teachers, the Conimbricenses.⁹ Fully reconceptualized according to the requirements of the doctrine of signs and constituted as a semiotic standpoint, it turns out that the point of view in question (regarding sensation in terms of a network of sensibles related as proper and common) is readily, while the modern resumption of the ancient atomistic standpoint (regarding sensation in terms of primary quantitative vs. secondary qualitative sensibles) is but marginally, if at all, compatible with the doctrine of signs.

For the standpoint in question, that of Aristotle reconceptualized within semiotic or the doctrine of signs, proves able to distinguish between two types of sense data in a way that is *neither realist nor idealist!* In contemporary terms, this prospective standpoint thus newly thematized is not in the first place ontological nor even epistemological, but rather *experiential*, much in the sense that late modern philosophers, after Husserl (but trying to shrive away Husserl's idealist twist¹⁰), have come to thematize as "phenomenological".¹¹

For the question answered in older tradition with the distinction between proper and common sensibles concerns the relation of environmental things to the channels of sense through which, and on the

⁹ See Doyle ed. 2001.

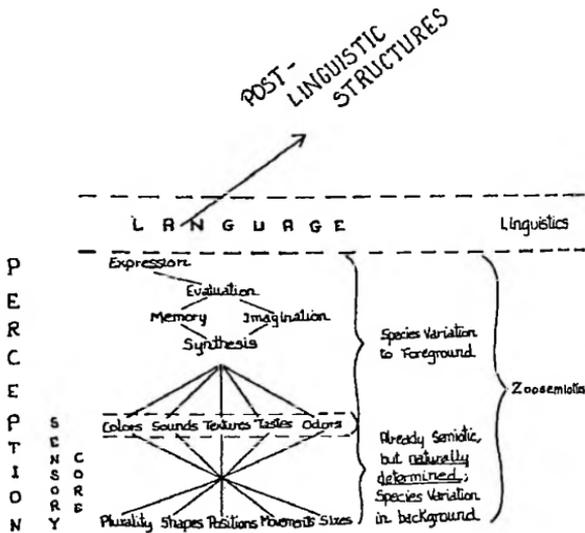
¹⁰ See, for example, Spiegelberg 1965; Langan 1996: 13–19, 37–124; Sokolowski 2002.

¹¹ I have not thoroughly considered the matter, but it might be that a strict application of rules 5 through 7 of Peirce's 1903 "Ethics of Terminology" (see also Deely 1998; Ketner 1981) would oblige us to prefer "phaneroscopic" to "phenomenological" in this matter. Quite apart from any "ethical" consideration, however, the modern idealist twist Husserl imparted to the term "phenomenology" may well prove eventually to result in that term's being supplanted by "phaneroscopy" as a lexicographical item in the later mainstream development of postmodernism.

basis of which, these things become aspectually and in part objectified. Some aspects of the physical environment as impacting upon (as interactive with) the organism, namely, the proper sensibles, are objectified, cognized, or known through a single channel of sense only. Other aspects are assimilated to experience through more channels than one, namely, the common sensibles.

Thus, in the list of sense qualities as 1 color, 2 shape, 3 size, 4 solidity, 5 texture, 6 rest or motion, 7 position, 8 number or plurality, 9 odor, 10 flavor or taste, 11 sound, 12 warm or cool, 13 sound, #s 1, 9, 10, 12, 13 could be known directly through one sense channel only (namely, respectively: sight, smell, taste, touch, hearing), while #s 2, 3, 4, 5, 6, 7, 8, 11 could be known in more ways than one. So 1, 9, 10, 12, and 13 are *proper sensibles*, while the rest are *common sensibles*, known simultaneously with but logically dependent upon the proper sensibles.

The following diagram, representing the elements of sensation and perception as shared among higher animals (or as studied within zoösemiotics), shows the relations of dependency involved:



The Semiotic Structure of the 'Sensory Manifold':
given structure in its sensory core; further structured in its perceptual interpretive envelopment of the surroundings

The modern distinction between secondary and primary qualities begs the question of which qualities are the comparatively more fundamental by ignoring the role of sensation in experience and supposing straight off that we can say in advance what is real and what is not — precisely the point on which Berkeley called the early-modern bluff to devastating effect. Instead of showing what was real and what ideal, the modern approach gave away the game by having adopted a standpoint consistent with showing *everything* in sensation to be ideal.

By contrast, the Latin scholastic distinction among sense qualities is drawn in a way that allows for a rational discourse and decision concerning the ontological status of objects experienced in terms of the physical aspects of their being. (Following Aquinas on this point, Poinso further saw that this way of distinguishing among sense qualities is the only way that the social construction of the objective world in and through formal signs maintains continuity with by partially incorporating the physical environment as such in its character as something prejaent to every Umwelt; but this is a point that goes beyond our present concern.)¹²

From the standpoint of contemporary consciousness, what Poinso in his *Treatise on Signs* proves able to show, in effect, is that the requirements of a doctrine of signs are consonant with the nascently experiential standpoint of the scholastics, but definitely incompatible with the would-be realist de facto idealist stance of the moderns. For the modern stance begs the question of the physical status of sensed things, which experience must rather provide the basis for deciding, if decided it can be. That is why the modern primary/secondary quality distinction leads, in spite of itself, and as we saw in our last chapter, to modern idealism; while the Latin Aristotelian proper/common sensible distinction leads rather to the doctrine of signs, as we now begin to see. For the scholastic way of distinguishing the sense qualities, though drawn initially with no semiotic consciousness at all, yet provides the materials for an analysis which results in the conclusion that the manner in which the common sensibles presuppose the proper sensibles

¹² Cf. Deely 2003a; and Simon 1969, as cited above p. 82n27.

is in strict accordance with the defining characteristics of the type of relation in which signification consists. I cite Poincot's most trenchant passage on the point:¹³

sense cognizes the significate in a sign in the way in which that significate is present in the sign, but not only in the way in which it is the same as the sign. For example, when a proper sensible such as a color is seen together with a common sensible, such as a profile and movement, the profile is not seen as the same as the color, but as conjoined to the color, and rendered visible through that color, nor is the color seen separately and the profile separately; so when a sign is seen and a significate is rendered present in it, the significate is attained there as conjoined to the sign and contained in it, not as existing separately and as absent.

The importance of the point that the analysis of sensation establishes a grounding of cognition in real physical relations of the sort which meet the criteria for falling within Aristotle's distinctive category of relation, but *which are at the same time sign relations structuring nascent awareness*, emerges from the following considerations.

If indeed experience begins with sensations, as empiricists claim, and sensations are an irreducible mixture of common with proper sensibles, the latter of which are related to the former as sign (sign-vehicle) to signified; and if the elaboration of sensations as perceptions requires, as all agree, the elaboration of images by the mind on the basis of which the sensible qualities are further presented *as this or that*; and if the understanding of what is perceived¹⁴ also requires the elaboration by the mind of ideas or concepts in order for what is

¹³ Poincot 1632a: Book I, Question 6, "Whether the true rationale of sign is present in the behavior of brute animals and in the operation of external sense", 208/34–47.

¹⁴ Motion, say, as a point of departure for considering the question of whether a being transcendent to the material order might not be required in order for the perceived fact of physical motion to be possible in the first place (cf. Deely 1994a: Gloss 33 on ¶208, pp. 152–155, esp. p. 155); or as a point of departure for differentiating between projectiles and falling bodies, etc.

objectively perceived to be understood in this rather than that manner (not to mention understood at all); and if, in Peirce's formula,¹⁵ as Aquinas, Scotus, the Conimbricenses, Poincaré, and others of the Latin milieu had argued, "all thought is in signs", meaning that all concepts — all images and all ideas, perceptual or intellectual — are related to their objects as signs to significates ultimately derived from sensation; then indeed the whole of experience, the being proper to it, from its primitive origins in sensation to its elaboration in perception and furthest developments in understanding — the whole of experience, from its lowliest origins in sense to its highest attainments in theoretical understanding — is a continuous network, tissue, or web of sign relations.

If that be so, then the doctrine of signs, the thematic elaboration of the role of signs in the constitution of knowledge and experience as the only path we have to the apprehension of objects and the truth about things, is not something peculiar or marginal to the philosophical enterprise. The doctrine of signs, hidden and skirted these many centuries of philosophical tradition, suddenly stands revealed as rather central to philosophical development all along and at its core, however long it takes for individual philosophers and for philosophy itself as an historical development over epochs to reach that realization as part of its general history and *prise de conscience*.

The difference in the modern viewpoint on sensation, rationalist or empiricist alike, and the older traditional one, thus, turns out to be very far indeed from two different standpoints, equally legitimate each from its own point of view, although the semiotic development of the question is required to see in full what is involved in choosing between the two. For the modern distinction not only begs several questions, it also *misses the point* of sensation analytically prescinded (as involving an incipient self-representation of the physical surroundings while not involving mental representation at all) from both perception and understanding as involving mental representations (but only *other*-representations on the side of psychological subjectivity), even

¹⁵ Peirce 1868: CP 5.253.

granting that both the higher levels depend on sensation for their base, as Poinsot well remarks:¹⁶

In the object of a cognitive power the focus of attention is not reality as formally mind-independent or entitative, according as the object has being in itself, but the proportion and adaptation to the power. This proportion indeed as it subjectively exists in a thing must be mind-independent; but in terms of the relation to the power, that it exists subjectively in an actual thing is not what is regarded, but rather that it exists objectively relative to the power in question — although on other grounds, if the power itself respects only mind-independent being [as is the case with external senses prescissively taken], that power will also require a mind-independent being in the object, not as existing, but as related to the power.¹⁷ For existence is always in an order to itself and subjectively, whereas to a power it always pertains objectively [and as terminating the relation of apprehension].

The semiotics of sensation thus reveals that the data of sense are never “atomic”, but always a complex network of relations incipiently apprehensive but naturally determined by the interaction of bodies and the proportion between them insofar as sense organs are involved in the interaction. And this complex network is not simply of dyadic or causal relations but precisely of such relations as give rise to triadic or sign relations, relations which do not fit neatly into the modern distinction between “epistemology” and “ontology” but reveal a prior common ground of knowing and being at the origin of objectivity in the sensations of external sense.

¹⁶ John Poinsot, 1635: *The Fourth Part of Natural Philosophy, Concerning Animate Being*, Question II, “On the properties of the soul in general”, Article 3, “Whether powers are specified and distinguished through acts and objects”, Reiser ed. Vol. 3, 77b26–44; cited in the modern edition of the *Tractatus de Signis*, pp. 190–191, note 35. See the more complete citation of this crucial text in chap. 10 below, p. 125n55.

¹⁷ So, for example, in the case of light reaching us now from stars which exist now no longer: see chap. 7, note 10, p. 72 above.



Chapter 9.

Semiosis beyond Perception

Sensation and perception among the animals, including human animals, while they differ in that perception involves mental other-representations while sensation as such does not, are yet alike in that they are tied to an awareness of bodies in their sensible aspects. The dog can see and bite the man who is President of the United States, but he cannot see what a President is (and what a president is, of course, is not precisely 100% the same in every country, but varies according to varying civil constitutions). But semiosis in human animals transcends or surpasses this limit, and can attain in objects dimensions or aspects which do not reduce to the sense-perceptible.

The reason is quite simple. The other animals perceive related objects, but not the difference between relations and objects (or things) which are related, let alone the reality of "things", such as ecclesiastical or state officials, whose whole differentiative being in the civil order consists in the manner in which they terminate and sustain relations of a stipulative provenance even when embodied in customs. Other animals are blind to relations stipulated as such, but become familiar behaviorally only with what is sensibly expressed in patterns of customary behavior precisely as visible to "the bodily eye", as including even imagination. It is similar to the case Thomas

Aquinas describes concerning the presence of Christ in the bread of the eucharist:¹

The eyes whereby we see are of two sorts. There is properly speaking our bodily sight; and analogically speaking there is our intellectual sight. ... The body of Christ is in the sacramental bread as a substance. But substance as such is not visible to the bodily eye, nor does it fall under any sense power, not even imagination, but is visible to the understanding alone, which has for its object what something is essentially.

Awareness of relations as such among human animals is generally speaking tacit only, quasi unconscious or preconscious, inexplicit. Preoccupied like all animals with objects especially in their aspects as things, human animals have some difficulty even becoming aware of the difference between objects and things, let alone of the fact that our awareness of things is dependent upon and derivative from our awareness of objects and the prior reality of relations as obtaining in the order of *ens reale*. Yet cenoscopy leaves no doubt that our awareness of things is logically dependent upon objectivity as distinct in principle from *ens reale*, even as objectivity is initially in sensation coincident factually with "thinghood" — the *ens reale* of the physical

¹ Aquinas c.1273: *Summa theologiae* 3.76.7c: "Duplex est oculus: scilicet corporalis, proprie dictus; et intellectualis, qui per similitudinem dicitur. ... corpus Christi est in hoc sacramento per modum substantiae. Substantia autem, in quantum huiusmodi, non est visibilis oculo corporali, neque subiacet alicui sensui, neque imaginationi, sed soli intellectui, cuius obiectum est *quod quid est* ...". (An interesting corollary, *ibid. ad 3*: "an angel good or bad cannot see anything by a bodily eye, but only by the intellectual eye" — "angelus bonus vel malus non potest aliquid videre oculo corporeo, sed solum oculo intellectuali". Cf. Deely 1994a: ¶299: "Especially important to grasp at this juncture is a point made in passing by Thomas Aquinas quite early in his career (c.1254-1256: *In I sent.* dist. 19. q. 5. art. 1. ad 7) in reflecting on the medieval doctrine that the intellect (in its difference from sense) is ordered to grasping 'the definable structures of material being' ('quidditates rerum sensibilium'): 'even the being of an essence is a kind of being of reason' ('etiam quidditatis esse est quoddam esse rationis'). This is so in the sense that the pattern of relations constituting what any given phenomenon — natural or cultural — is, so far as the understanding grasps that structure, is constructed by the understanding on the pattern of relations it has experienced as obtaining within the objective world."

surroundings as here and now active upon the animal body both as enabling its continued existence and as precipitating its initial awareness. So it is that our awareness of things as “objective” is dependent in general upon the difference in principle between the objective world or *Umwelt* as relational throughout and the physical environment which, in its proper being as both subjective and intersubjective, is independent of the question of whether or not it is in part also objective or known.

Our first notion of “signs” is, exactly as Augustine put it, in terms of some material object which makes us think of something besides itself in our awareness of it. Only later, if at all, do we come to realize that the *relation itself*, triadic in structure, is the sign, the material object perceived being rather merely the *vehicle* of the signification (or “representamen”, as Peirce put it). And even this material sign-vehicle is able so to function only on the basis of imperceptible psychological states, the “*passiones animae*” or “passions of the soul”, in Latin parlance. These states do not exist *except* as sign-vehicles presenting within awareness not only objectivities other than themselves but objectivities interpretive of the sensible world around us, including also what in our awareness we classify (or confuse) as here *ens reale* there *ens rationis*.

Only much later, if at all, do we come further to realize, then, that it is not at all the sign-vehicle which is strictly and actually the sign, but much rather the in-itself invisible and imperceptible—directly *triadic relation* linking a sign-vehicle to its object-signified for us as perceivers of what is signified.

So it is time to say clearly what the term “object” says obscurely or not at all. Our awareness from top to bottom is not only based on sign-relations stemming originally from the dyadic causal action of sensible things upon our organs of external sense (dyadic relations subsumed into triadic relations of sensation as soon as the response of the sense makes the animal *apprehensive* of the stimulating source), but everything that we call an object of awareness — whether or not it has the subjective being proper to things individually existent in our surroundings — is a *significate* (that word dictionary makers are

so reluctant to recognize and allow into our domesticated midsts). To say "object" may or may not be to say "thing"; but to say "object" and to say "object signified" is a matter of redundancy. There is no object other than one signified. Every object in principle is a significate, whether or not it is also a thing existing in the order of *ens reale*.

So a sign strictly speaking is a triadic relation suprasubjectively uniting three terms: a sign-vehicle or representamen, an object-signified or significate, and an interpretant or one to or for which the representamen functions as an other-representation.

The reality of signs as triadic relations (in contradistinction from sign-vehicles, significates, and the interpretants of signs) is impossible to communicate except to an animal able to know realities which are in their reality imperceptible to sense, because such an awareness or 'knowledge' requires an ability to apprehend relations *in their difference* from related things. That cognitive ability is what distinguishes human animals from all the other animals. We now see just how central to philosophy are the differing judgments made on the basis of that ability to recognize a difference between relations as such, on the one hand, and related objects and/or things, on the other hand. For it is now apparent that recognition of the reality of relations in their indifference to the difference between objects as *ens reale* or *ens rationis* distinguishes realists from nominalists; and realization of how that indifference is what makes signs possible (both signs used to express truth and signs used to express lies) is what distinguishes semioticians from mere realists. As nominalism is idealism in embryonic form, so realism in philosophy proves to be semiotics in embryonic form.

The other animals, as Jacques Maritain first noted, all make use of signs without realizing that there are signs, signs in their difference from both objects and things. Human animals not only make use of signs but realize that there are signs. From this realization, by cenoscopic analysis they can even come to realize, beyond the difference between objects and things, also the difference between signs strictly speaking as triadic relations invisible to sense and sign-vehicles which are such only when and by virtue of occupying the position of representamen in a triadic relation (whether that relation be *ens reale* or *ens*

rationis depending upon circumstance alone) suprasubjectively linking in one unified whole the significate and its vehicle with the one to or for whom the vehicle conveys its object as other than itself.

Just as every sign strictly speaking is a triadic relation, so every object strictly speaking is a significate occupying the role of signified in a relation irreducibly linking three terms according to the respective roles of vehicle, signified, and interpretant. Things are another matter. As the other animals see only a world of objects, so human animals tend to see only a world of "things". Yet it remains that things are known only within a world that is objective first of all (the surroundings viewed in relation to the perceiver), an objective world that the human animal transforms into a world of "things" seemingly "independent" by adding to the objective world the mind-dependent relation of objects to themselves, thus severing the exclusive "relation to the organism" which otherwise characterizes animal awareness. But insofar as they are known at all, objects qua objects and objects qua things retain in common that they are known through signs. The action of signs thus (or semiosis) is the basis of all objectivity, which is hardly limited to things, though indeed with sensation it begins in the order of *ens reale*, as we have seen, and with the advent of intellectual concepts opens the way beyond the objective world structured by the concepts of perception for animals able to manipulate relations as such — human animals.

The capacity for that distinctive manipulation turns out to be the basis of linguistic communication, even for those among the semiotic animals who do not yet, or do not explicitly, realize the role that relations play in making such communication as a species-specifically distinctive form of semiosis possible in the first place. Yet only animals capable in principle of coming to such a realization are capable also of mastering in its syntactic and verbal distinctiveness the system of linguistic communication which opens the way to the realm of culture in its contrast to merely social as also to physically natural "realities".

Relations turn out to be crucial. Their singular nature as supra-subjective within the order of *ens reale* turns out to be what makes semiosis possible in the first place, whence only animals capable of distinguishing between relations and *relata* (objects or things, either

or both) are capable — not of merely using, even in order to deceive, signs; but further — of knowing that there are signs.

Yet further cenoscopic analysis is required to come to realize that these “signs” in their proper being are not the objects we see, hear, or point to as “signs” but in reality are triadic relations suprasubjectively unifying knower and known on the basis of a quality (an ‘interpretant’) subjectively existing in the knower. That subjectively existing quality sustaining here and now a given triadic relation of signification may be the effect of an action of an object physically present as thing stimulating and specifying an organ of external sense, so as to constitute therein the foundation of a relation having the acting thing as its terminus made present in that regard to the organism; or it may be rather a psychological condition or state presenting the significate interpreted as this or that.

The action of signs, “semiosis”, consists in the creation of just such a triadic union. The knowledge of that action, accordingly, is called “semiotics”. So semiotics is a body of knowledge that presupposes the ability to cognize relations in just the way that relations in their proper being as suprasubjective are imperceptible to any sense. Whence the animals capable of knowing that there are signs, in contrast to merely relying upon signs in use, are best described as *semiotic animals* — an expression which provides the distinctively postmodern definition of human beings.

Modernity in philosophy was above all else the age of nominalism, as we have seen, preoccupied with what might be the substance of things. Postmodernity begins roughly where nominalism ends, and that is with the discovery that objects presuppose the action of signs, but signs presuppose the reality of relations. If that is so, then we may say with Ratzinger² that “the undivided sway of thinking in terms of substance is ended; relation is discovered as an equally valid primordial mode of reality”.

And with that discovery we find ourselves in the postmodern era of philosophy, where semiotics names the initiating mainstream development — as rationalism named the initiating mainstream development of modern times. What “rational animal” was to medieval times, when

² Ratzinger 1968: 132 (p. 184 in the 2004 reprint edition, with “undivided sway” replaced by “sole dominion”).

realism was still in its embryonic stage and *ens reale* thought to be the whole story, “semiotic animal” is to postmodern times. What “thinking thing” was to modernity, when nominalism played out its farthest implication and *ens rationis* (objectivity as socially constructed) was taken for the whole of what is knowable, “semiotic animal” is to postmodernity where we realize that our responsibilities as ethical creatures implicate even *ens reale*, that is to say, the world of physical nature itself as bound up with and impacted by the species-specific Umwelt of human animals as it develops over time and envelops as Lebenswelt (Umwelt transformed from within by linguistic communication, enabling the sharing and strengthening through science of understanding’s penetration of the subjective constitution of things) the rest of the biosphere.³

Far from being set apart *from* the rest of nature as a *res cogitans*, a “thinking thing”, the semiotic animal is set apart only *within* nature by *responsibility for the whole of nature*, as that part of nature’s whole alone capable of *realizing* its place within and dependence upon the “nature of things”. In semiotics as postmodern philosophy we realize both truths: first, medieval *ens reale* and modern *ens rationis* together make up the objective world of animals; second, this objective togetherness of *ens reale* and *ens rationis* — both important in different ways, with relations being the thread from which the fabric of experience as including both is woven — constitutes “reality” (the objective world or Umwelt subjectively grounded) as we must deal with it (the objective world or Umwelt suprasubjectively terminated) in giving shape to our own lives and that of future generations.

“Reality” here, notice, has a whole new meaning respecting modern or medieval discussions. With semiotics “reality” is seen not only as irreducible to the world of things preajacent to human presence in the world (this the moderns achieved), not only as including things of nature knowable as such (this the medievals achieved), but also as exceeding in objectivity the whole order of *subjectivity* (the subjective realities

³ As indicated in the “Rationale” for this volume as second in a trilogy (pp. iv and vi above), the term for this realization of the full extent of distinctively human responsibility for the consequences of action is *semioethics*, a notion we will explore directly in the third volume.

grounding relations) and *intersubjectivity* as well. For just as things become objects only through semiosis — so that signs are truly what every object presupposes — so also objects are more than things objectified. For objects, as the publically accessible terms of suprasubjective relations, may become “intersubjective” in human discourse (as “everyone knows” that Hamlet, although never an actually existing subject, yet was Prince of Denmark and a rather serious soul). Yet objects are not necessarily intersubjective but only *suprasubjective*, terminating relations ontologically irreducible to the subjectivities needed to provenate and sustain relations. If I have an idea of a new form of government or machine, say, and I die before communicating to anyone the objectivity provenating from that idea, the object in question fails to become *intersubjective* in fact yet, as suprasubjective by nature, remains intersubjective in principle. Whence some other “rational animal” may hit upon the “same idea” and communicate its provenant objectivity to others at a later time than — or even (by chance) simultaneously with — my death.

So we see that the semiotic meaning of “objective” is not at all what modernity came haplessly to think of as “the way things are in contrast to subjective human opinion”. “Objective reality” includes something of the reality of things both subjective and intersubjective, but also *purely objective* elements which, though by no means reducible to psychological states, yet have no existence as actual things absent animal consciousness. Semiosis alone intervening in the interactions among things gives rise to “objective reality”, and reality as “objective” both subsumes and transcends subjectivities as only *part* of reality (the “*in esse*” part, in Aristotle’s and the medieval sense). Objective reality, by contrast, exists only through the action of signs, and is real *whether or not it also happens to be subjective* (like the cancer properly diagnosed, discussed above) or *intersubjective*. “Objective reality” may be only virtual, as in physiosemissis and phytosemiosis; or fully actual, as in zoösemiosis and anthroposemissis; but it *always* includes *more than ens reale*, even as also *something of ens reale*. And that “something”, *pace* the nominalist, includes relations as intersubjective (*relationes reales*), and, *pace* the Kantian, includes something of natural substances subjectively existing recognized to however limited a degree as they are “in themselves”.

Chapter 10.

Descartes & Poinset: Retrospect & Prospect

Ideas, on any accounting, are products or creations, works of the mind.

Two Possibilities

Do these fabrications which constitute thought stand *between* the things of the surrounding world and our consciousness of those things? Or do the fabrications constituting thought stand rather as the interpretive *basis of relations* which (through the involvement of sensation as prior to ideas in presenting to us the shapes, movements, positions, etc., of surrounding things to be interpreted objectively) are able to *terminate in a world of objects* to be sought, avoided, or ignored, indeed, but finally also *to be understood in their own being* as involving subjects of existence in their own right?

That first possibility is the Way of Ideas.

The First Possibility

This is the path down which modern philosophy followed the lead of Descartes. It matters not whether we call the products of mind taken to *intervene* between thought and things objects, ideas (Descartes called them both, synonymously), or phenomena, as Kant later did.

What is of the essence of the Way of Ideas is that *that which is directly known by the thinking mind* is something *that the mind itself produces*, something *internal to the subjectivity of the knower*, beyond or behind which, if anywhere, lie the things in themselves. These things (in this framework) are unknowable in every respect save for the *fact* of their being there, the *fact* (or the problem) of the external world. Exploring this path or Way is the history of philosophy as modern.

It is true that Kant, in “synthesizing” the sparring Continental Rationalism/British Empiricism developments after Descartes and Locke, criticized his early modern forebears for being “too subjective”. Yet this was while accepting their common assumption that objectivity involves mental representation “from the get-go”. Kant even reintroduced relations into the center of the knowledge situation — but purely mind-dependent ones, *entia rationis* — with his distinction between psychological subjectivity as such in contrast with objectivity, the former as founding with the latter rather as terminating awareness (a distinction which finds its best expression later in Jakob von Uexküll’s original terminology as *Innenwelt* in contrast with *Umwelt*, but here in von Uexküll’s work the new terminology proved only contingently burdened by the Kantian conflation of image-dependent sense-perception with imageless sensation, and in semiotics after Sebeok, but also in philosophy itself in passages of Heidegger, came to be freed of that superfluous burden). Kant overcame Hume’s reduction of intellect to sense with his notion of reason as introducing into the objective realm of mental representations or “phenomena” the a-priori forms which give necessity to scientific thought.

But by basing his “objective idealism” on the common assumption which led to idealism in the first place, namely, the assumption that there is no dimension of awareness which is not concept-dependent regarding the constitution of objects, his accomplishments all come down to the “meaningless surplusage” of considering things in themselves to be “unknowable”. Casting that consideration aside as what Peirce termed “the nonsense that it is”¹ —

¹ “In half a dozen ways”, Peirce comments (c.1905: CP 5.525), the Kantian notion of an *unknowable* “Ding an sich has been proved to be nonsensical; and here is

in semiotic terms, it amounts to a reduction of anthroposemiosis to zoösemiosis;² in the terms of traditional philosophy, it is the culmination of nominalism as empty words, failed sign-vehicles, *flatus vocis*³ — the definition of objectivity as a veil of mental self-representation intervening alike between sense-perception and intellection, on the “inside” of the knower, and the physical environment of interacting things, on the “outside” of the knower, stands as the common assumption shared with Descartes no less by Kant than by Locke as the *point de départ* of mainstream modern philosophy, the assumption without which “the Way of Ideas”, as Leibniz put it,⁴ “would become worthless”.

Enter postmodernity! Let us consider our second possibility, that the fabrications constituting thought stand rather as the interpretive *basis of relations terminating in a world of objects* to be sought, avoided, or ignored, indeed, but finally including also *things to be understood in their own being* as involving subjects of existence in their own right?

The Second Possibility

This second possibility is the Way of Signs.

Poinot was the first fully to outline this path, the Way of Signs, as including not only ideas but also sensation in contrast to ideas; but he can hardly be said fully to have pursued it, let alone been followed down it. Indeed, the first fully to set out upon the Way of Signs was rather Charles Sanders Peirce, and he learned of this way not at

another way”, he adds, in the text continued in note 3 following. The reader interested in a full discussion of Kant’s noumenon/ding-an-sich distinction may consult Deely 2001: 553–572, esp. 558–559.

² See Deely 2004c.

³ Peirce c.1905: CP 5.525: “It has been shown [3.417ff.] that in the formal analysis of a proposition, after all that words can convey has been thrown into the predicate, there remains a subject that is indescribable and that can only be pointed at or otherwise indicated, unless a way of finding what is referred to, be prescribed. The Ding an sich, however, can neither be indicated nor found. Consequently, no proposition can refer to it, and nothing true or false can be predicated of it. Therefore, all references to it must be thrown out as meaningless surplusage.”

⁴ Leibniz 1704: “Preface”, p. 64.

all from Peirce but rather from Peirce's teachers,⁵ the Conimbricenses: "There is nothing which leads to the cognition of anything else which cannot be reduced to some sort of sign".⁶ When Peirce described himself as "a pioneer, or rather a backwoodsman,"⁷ in the work of clearing and opening up semiotics, he did so on the basis of his knowledge that the doctrine of signs as triadic relations — fully established near the end of the Latin Age — was incompatible with what in the Modern Age had come to be called "epistemology".

Peirce's historical knowledge had traced the doctrine of signs among the Latins from Aquinas, Scotus, and Ockham as far as the Conimbricenses' treatise of 1606–1607. Even as he seems to have had no awareness of the end-of-the-4th-century originality of Augustine in planting the seeds of semiotic consciousness among the Latins with the first general notion of sign,⁸ so Peirce did not know of the beginning-of-the-17th-century work of Peirce, erstwhile student of the Conimbricenses, the *Tractatus de Signis*, published a quarter-century later than the *De Signis* of his teachers. In his *Tractatus* of 1632, Peirce demonstrated not only that "all thought is in signs" (as Peirce had learned already from the Conimbricenses). He also demonstrated that all sign relations — the relations constitutive of the sign in its proper being — are irreducibly triadic in type. And he showed further that *sensation itself* prescissively considered at the origin of experience, the basis for animals subsequently not only to form ideas in the first place but as well to test their adequacy over the course of the animals' life (hence as involved within thought throughout the life of the animal organism), consists *already and also* of a network of sign relations not reducible to, indeed, but irreducibly enmeshed in the order of *ens reale*. This last demonstration holds the guarantee that, however abstract thought might become in the ideal order, the animal awareness would remain also "in touch" with its surroundings as belonging to

⁵ See Beuchot and Deely 1995.

⁶ Conimbricenses 1607: q. 2, art. 3 (p. 27 of Doyle ed. 2001).

⁷ Peirce c.1906: "A Survey of Pragmatism", CP 5.488

⁸ See "History of Semiotics", Deely 2006a; cf. also Eco, Lambertini, Marmo, and Tabarroni 1986: 65–66; Manetti 1987; Deely 2001: Part II, and Deely 2008/9.

the mind-independent aspect of the physical world in which the animal organism dependently lives.

Toward Semiotics Itself in the Fulness of Time

Just as well, perhaps, that Peirce never encountered directly the work of Poinsoot, if only as a reminder at least that semiotics is more — far more — than Peirce and Poinsoot, separately or combined. For postmodernity, in developing the doctrine of signs, needs to do better than did the moderns in blindly following the suggestions of one man based on an unexamined supposition held in common, that mental representations as *formed* by the mind also *terminate* the mind's direct *awareness* of objects. "A fine mess, as you can see", Walker Percy wrote me of semiotics.⁹ "Current semiotics is crazy enough without trying to connect up with John Poinsoot. Yet I feel, reaching a hand across three hundred years, that he is onto something of the utmost value". Percy concluded:¹⁰

I have no doubt that a few years from now Poinsoot will be recognized as one of the major founders, if not the founder, of modern [rather of *postmodern*, as it turns out] semiotic.

Be that as it may, the Way of Signs is unmistakably a path that leads beyond what in philosophy became of modernity, and in this sense the Way of Signs can only be understood as something "post-modern". But the Way of Signs is "postmodern" in another sense as well, for while the Way of Ideas has indeed proven to lead ineluctably to solipsism as its outcome in principle, the vagaries of explorations along the way (including the repeated, increasingly desperate attempts to avoid solipsism as the modern consequent) have clearly shown us that if objects be other than ideas (or more generally, other than mind-dependent self-representations), neither can they be simply reduced to things. And what the Way of Signs begins by realizing is that objects in principle are in every case significates — "objects signified", where

⁹ Letter to the author dated 27 October 1986 (see Samway ed. 1995: 173; cf. 175).

¹⁰ *Ibid.*

the term “signified” is actually redundant, inasmuch as we are now in a position to see that *every* object qua object is a significate, while the word “object” used by itself tends to conceal the necessity for a semiosis or action of signs without which there are no objects at all, but only things interacting.

So not only thought, but the whole of experience involving the interweave of objects and things and the objectification of things through cognition and cathexis, is a product of semiosis. This “semiotic web”, as Sebeok called it,¹¹ is the net in which the mind catches realities, whether of nature or of social construction — a net which does not reduce to the subjectivity of the knower but consists rather of strands which, as terminating relations suprasubjective according to their being as relations, makes of its catch something public in principle. And this is what the work of Poinso was the first systematically to establish.

Objectivity, in short, as we have come to see, is a product of signification, the *terminus* of sign relations *founded upon* the action of sensible things upon the external senses together with the action of internal sense and understanding alike in forming the ideas which interpret objectivity. Thus the objective order comprises everything and whatever it is that we become aware of, regardless of whether or not that of which we become aware has the further existence of subjectivity or intersubjectivity which characterizes things existing in the order of *ens reale* — the order, that is to say, of “the things that are” whether or not, in whole or in part, they exist *also* in the universe of knowledge.

The Question of Human Knowledge, Its Nature and Extent

So it appears, in retrospect, that Descartes and Poinso stand indeed at the crossroad where modernity takes the Way of Ideas. Poinso, by contrast, rather marks clearly for future generations the Way of Signs as a path yet to be explored in the fulness of that action which distinguishes the being of signs as triadic relations from the dyadic or

¹¹ Sebeok 1975: 149.

“mechanical” interactions in terms of which Descartes and the moderns conceived the world as split between “thinking things” and “extended things” (but without being able to bridge the two).

The Way of Ideas, intended by Descartes to be the path to ideoscopy, proved instead to be a kind of path to nowhere — to an ever more complex understanding of the way objects interact without ever realizing what an object truly is, namely, a creature of semiosis involving outer no less than inner, other no less than self. The actual path to ideoscopy, in the line of Galileo, Kepler, Newton, Einstein, Planck, and Bohr, developed just fine, thank you, by largely ignoring the detour that Descartes (and the ideosophers after him) mistook for the main route of the scientific renewal. Ironically, in Descartes’ very lifetime, but by a contemporary wholly ignored by — indeed wholly unknown to — the mainstream lineage after Descartes, Poincaré demarcated the Way of Signs as the true way to achieve an answer to the question that preoccupied all of the moderns, Descartes no less than Locke, Kant no less than either Descartes and Locke: “What is human knowledge, and what is its scope?”

This question, posed by Descartes in 1628,¹² Poincaré in 1632 expressly answered by referring it to semiotics as the doctrine of signs;¹³ and Poincaré seems clearly to have realized that it is a matter for cenoscopy to answer first of all, and only secondarily and as concerns the details a matter of ideoscopy. But Poincaré wrote at a time when ideoscopy seemed to promise everything, and cenoscopy was deemed precipitously a failed enterprise, *depassé*.

Two Stars Alternating in Morning and Evening Light

Looking back, and considered only in their own time, Descartes was clearly the man of the future, Poincaré the man of the past. The modern centuries developed accordingly. The two thinkers, while of

¹² Descartes, *Rules for the Direction of the Mind*, p. 31.

¹³ See Poincaré, *Tractatus de Signis*, pp. 4–6, 34–35, 38–39 esp. 38/11–20; together with the editorial set of six “Semiotic Markers”, pp. 7, 18–19, 30, 36–37, 40, 46–47.

the same generation in time, could not have stood in starker contrast respecting the immediate future: Poinsot was an *evening star*, summation in philosophy of a passing age; Descartes the *morning star*, embryo in philosophy of modernity.

Poinsot was irrevocably committed to the importance of tradition in philosophy at the very historical moment when the exuberance of modern discoveries in areas we now call scientific, in contrast to philosophy, was encouraging men to dismiss tradition as an obstacle to the adoption of new methods and to concentrate on problems framed in ways required for ideoscopic advance and (insofar) alien to traditional concerns.

At just that moment Poinsot was determined, in Simonin's accurate description,¹⁴ "to remain a man of the past and to arrange his work in its totality according to the pattern and methods of long-standing tradition". At that same moment, Descartes — and with him, modernity — was determined to jettison the pattern and methods of Latin tradition in favor of a new pattern and new methods better suited to the interests of understanding the world in its empirical guise as accessible to present experience aided by instrumentation and to control through experimental designs expressing mathematical patterns.

It is as if Poinsot had a sentiment that the cenoscopic gains of the university traditions in Latin philosophy were suddenly at risk and had to be consolidated, systematized, and preserved for a future time, lest they be lost completely in the rush to embrace the concerns of ideoscopy.

If so, Poinsot was certainly correct; and in any case we owe him a great debt. The great Age of Enlightenment within modernity, which the turn to ideoscopy precipitated, came to be characterized by the belief that the new ideoscopic sciences alone held a future for human understanding, that the beliefs and opinions of all former ages, lacking ideoscopic foundations, were doomed to crumble under ideoscopic inspection — as the biblical readings and philosophical proofs of the stationary earth had been reduced to ruin by the telescopic

¹⁴ Simonin 1930: 145.

observations of Galileo (1564–1642), as the cenoscopic physics of Aristotle (BC384–322) had been eclipsed¹⁵ by the ideoscopic physics of Newton (1642–1627). This belief in ideoscopy as the sole and whole instrument of human enlightenment, promoted by Voltaire (1694–1778) and others, was an understandable reaction in the wake of the remarkable achievements in physics after Galileo and Newton, receiving further impetus — if such was needed! — from the whole range of experimental developments in the work of Harvey (1578–1657) on the circulation of blood, Darwin (1809–1882) on the evolution of life, Pasteur (1822–1895) in microbiology, The Age of Enlightenment turned to the discoveries of ideoscopy and away from the analyses of cenoscopy — turned, as Galileo put it, to the task of reading the Book of Nature in preference to the “Books of Men” which, in his time, meant especially the Scholastics, the Latins whom Descartes warned us against reading too carefully.

Charles Peirce (1839–1914) was among the first to see clearly that the pendulum had swung too far. Philosophy, after all, is not merely incipient ideoscopic study; it is a broader framework upon which the very possibility of ideoscopy depends. As Berkeley pointed out that there can be no knowledge of primary qualities in bodies if the secondary qualities are pure creatures of mind, so Peirce would point out that there could be no development of ideoscopic science if cenoscopic knowledge did not have a prior and relatively independent validity of its own; and in particular¹⁶ that “the cenoscopic studies (i.e., those studies which do not depend upon new special observations) of all signs remain one undivided science.” For the doctrine of signs

¹⁵ I say “eclipsed” rather than “supplanted” here, for these two rather different “physics” are by no means incompatible, as is often mistakenly thought. Not only is there within the Aristotelian notion of the world as “a many made up of ones” a theoretical *locus* for the mathematical component of ideoscopic physics (see above, p. 76f.) to be inserted, *precisively and abstractively*, but the new physics (the ideoscopic physics), in showing that matter is matter throughout the cosmos, not only exposed the phantasy of “celestial matter” as subject to no change save that of circular motion in space, but showed that Aristotle’s cenoscopic analysis of “terrestrial matter” was valid not just for the matter of terrestrial life but for the material universe in its entirety.

¹⁶ Peirce 1908: CP 8.342.

crosses every boundary, and indeed is presupposed to the very establishment of boundaries between the various disciplines and fields of study. With that realization, the Age of Enlightenment — the period of belief that philosophy raises questions which, when they become answerable, turn into science — was over; but so was the epistemological epoch of modern philosophy as a whole over.

Here is where the story of Descartes and Poinso comes full circle. As Venus when it precedes the sun in rising appears as the Morning Star, so Descartes stood in relation to the dawn of modern philosophy. And as Venus when it appears as the bright planet in the western sky of the setting sun is called the Evening Star, so Poinso stood in Descartes' time in relation to the Latin Age of philosophy. In his many tomes he carefully preserved and distinguished the best of the Latin analyses of cenoscopy, writing with a quiet but not frantic haste, carefully demarcating the boundaries where the discoveries of ideoscopy alone could legitimately take up the weaving of the tapestry of human understanding, but without losing sight of the proper relations and interdependencies between cenoscopy and ideoscopy within the development of human understanding as an experiential, experimental, and theoretical whole.

But now the seasons and cycles have changed. The modern age that Descartes presaged is at its end, while the far future that Poinso presaged with his doctrine of signs is at hand. We see now that the semiotic of John Poinso, destined to fall dead-born from the press in Descartes' lifetime, yet harbored the dominant interest of prospective significance as the seminal treatment illuminating possibilities of a future age beyond modernity. Such was the assessment of Sebeok,¹⁷ that Poinso "appears, in retrospect, to have forged the most solid, lasting link between the Scholastic semioticians — an intellectual milieu in which this keen thinker was still profoundly at home — and the emergent doctrine of signs envisaged, labeled, and foreshadowed by John Locke half a century later in 1690", indeed, but thoroughly

¹⁷ Sebeok 1975: 3. In 1982: x, Sebeok further characterizes this linkage that Poinso provides as "the 'missing link' between the ancients and the moderns."

neglected thereafter¹⁸ in favor of the headlong pursuit of the modern philosophers down the Way of Ideas.

The Singular and Not-To-Be-Repeated Reversal

So has it come to pass that, as the 21st century opens, we are moving from the evening of modernity to the morning of postmodern times. It is in relation to the fading western light of modernity that Descartes appears now rather as the Evening Star, while in the eastern dawn it is now rather Poinot who appears as the Morning Star, the first explorer along the Way of Signs. Not only did he establish for us, as Walker Percy realized, the standpoint proper to semiotic as transcending the modern impasse between idealism and realism, but he provides us a more accurate access in general to Latin cenoscopic achievements than was provided in the alternative Latin synthesis¹⁹ published at the end of the 16th century by Francis Suárez.

The summations of Latin thought provided by Suarez in his *Disputationes Metaphysicae* of 1597 were comparable to the summations of Patristic thought provided by Lombard in his *Sententiae* at the mid-12th century. As the Latins concentrated on Lombard's convenient summary to the neglect of the original sources in the later Latin Age, so the moderns looked only to the convenient synthesis of Suarez for knowledge of what the Latins had taught. The moderns themselves, divided into the two streams of *modern philosophy* (so-called Rationalism and Empiricism), concentrated more and more on the black hole called "epistemology".

The side of ideoscopy proper, however, witnessed the spectacular rise of *modern science*, whose practitioners concentrated their main interests on the truly ideoscopic questions of the new tradition leading from Galileo through Newton to Einstein and Bohr in our own time, where the turn to ideoscopy continues to gather steam. On the cenoscopic side, by contrast, developments languished under the

¹⁸ See the details of the modern response to Locke in Deely 2001: chap. 14, esp. 592–593.

¹⁹ Francis Suarez 1597: *Disputationes Metaphysicae* (Salamanca).

Enlightenment ideal of making of ideoscopy the whole of human knowledge. The hapless philosophers of this period continued to follow Descartes' lead down the Way of Ideas, while the true ideoscopic development — modern science — took its own course, first (and mainly) in physics, later in biology and the establishment of social sciences as well.

As a result, over the modern period, the influence of Descartes' recommendation not to read the Latins (lest "traces of their errors infect and cling to us against our will, and despite our precautions"),²⁰ combined with the distorting influence of Suarez on what the Latins taught in the matters concerning relation crucial to the establishment of semiotic (as Poinso — but writing after Suarez, and utterly ignored by moderns — had shown), resulted in a general cultivated ignorance of philosophy's premodern history. Even when the revival of "medieval studies" took place in the later 19th and over the 20th century, the established pattern of neglecting the Latin development after William of Ockham (c.1285–1349) — the basic period of Suarez's summary — continued to prevail. The work of Poinso, unknown in the modern mainstream circles, remained sidelined in the shadows. Not until the 1920s, that late in modernity's game, did Poinso's *Treatise on Signs*, the *Tractatus de Signis* of 1632, catch the attention first of Jacques Maritain early in the 20th century,²¹ then of Herculano de Carvalho, and finally of Sebeok²² and me in the 1960s–1980s. Thence came the first independent edition of the *Tractatus* (1985),²³ establishing how and why the action of signs — consequent upon the being of signs as relations irreducibly triadic transcending the divisions between nature and culture, inner and outer, mind-dependent and mind-independent being, in the objective order — is possible.

There is great irony in this situation at the crossroad marked by the contrasting works of Descartes and Poinso.

²⁰ Descartes 1628: 13.

²¹ See the history in Deely 1986.

²² See Sebeok 1989: 391–393, 1990: 310–312, and 1991: 39–42 and *passim*.

²³ See, in Poinso 1632a, the "Acknowledgments and Dedication", p. v.

It is true that their two emphases — the preference of Descartes for personal experience in the service of ideoscopy, contrasted with the preference of Poinot for collective experience critically analyzed and culled cenoscopically for its best results — are clearly opposed as attitudes of mind.

But it is equally true that the opposition, philosophically considered, is a superficial one, being not an opposition at all, as the Enlightenment thought, but only a difference of emphasis between complementary theoretical enterprises. The newer attitude of mind, ideoscopy, in reality cannot develop except on the basis of assumptions whose validity can be adjudicated only with recourse to cenoscopic analyses (which indeed was Peirce's principal reason for regarding the doctrine of signs as a "cenoscopic science",²⁴ and later Sebeok's reason²⁵ for preferring to qualify semiotics as a "doctrine" in contrast to "science" as a term which carries today rather an ideoscopic sense).

The principles for resolving the conflict of attitudes which marked the turn to ideoscopy in the early 17th century were equally available to Descartes and to Poinot in the traditional writings Descartes chose to turn away from, even if the differing attitudes themselves were too little understood at the time to allow for such application in detail by either man. *Prise de conscience* always requires some reflective distance, and this was not available to the men caught up in the present of that time.

Today we see clearly (but thanks to the accumulated experience the modern centuries collectively provide in matters intellectual) that the object of science and of philosophy alike, while transcending perception, always concerns and essentially depends upon what can be directly sensed within perception. But the framework as such of under-

²⁴ Peirce 1908: CP 8.343

²⁵ Sebeok 1976: ix; extended discussion in Deely 1976, 1977, 1978, 1982a, 1986a (see the entries "Doctrine, philosophical" and "Doctrine of signs" in the Index to Deely 2001: 878 & 878–880, respectively). It is worth noting that the appellation "doctrine of signs", *doctrina signorum*, is the expression used in common to name semiotics from Augustine to Poinot in Latin times (5th–17th century), from Locke to Peirce over the modern era (17th–20th century), and after Sebeok all but universally among students of the action of signs as the 21st century opened.

standing according to which whatever is sensed and perceived has always to be interpreted, now according to cenoscopic patterns, now along ideoscopic lines, depends upon the circumstances of the case. This object — “reality” — is hardly reducible to language or to things, but is nonetheless accessible analytically only through language, which depends upon cenoscopic experiences (constantly involving sensation) even in order to make ideoscopic concerns possible in the first place.

Debating whether the atom can be split, the scientist can ultimately resort to an experiment *demonstrando ad sensus*. Debating whether God exists, or what are the nature of signs such that they can be used to debate about objects such as atoms which depend upon material conditions, or spirits which by nature would not depend upon matter (especially in the case of God), the philosopher never has the privilege of falling back upon such a “crucial experiment”. From first to last, philosophy has only a *demonstratio ad intellectum* whereon to rest its case. Science is the domain of instruments, experiments, and mathematization. Intellectual doctrine as irreducible to what can be manifested as decisive in an empirical frame is the domain of philosophy, a “cenoscopic science”, as Peirce said.

There are many areas in the development of hypotheses and the elaboration of frameworks for the testing of hypotheses where, to be sure, philosophy and science overlap. But ultimately there is always the difference between *scientia*, as what can occasionally be reduced to a crucial experiment *demonstrando ad sensus* — the realm of ideoscopic knowledge; and *doctrina*, as a body of thought sensitive to its own implications and striving for consistency throughout, while achieving explanations (however provisional) at a level beyond what can be empirically circumscribed in unambiguous ways — the realm of cenoscopic knowledge.

Today, we would be more inclined to admire Poincaré’s attempt “to let no new achievements be lost, and to profit from the final developments of a scholasticism which had exhausted itself in the plenitude of its refinements”.²⁶ We are less inclined to be taken in by Descartes’ denigration of “the various activities and undertakings of

²⁶ Simonin 1930: 145.

mankind” as “vain and useless”²⁷ by comparison with “that knowledge which could be found within myself”.²⁸

But habits which have taken hold for three centuries die hard. In our classrooms today and for the foreseeable — but perhaps not indefinite — future, it is still the meditations of Descartes that are likely to be read and discussed rather than the tractates of Poinso, for two principal reasons.

First, the comparative poverty of Descartes’ texts makes them much easier to grasp: on the surface at least, no more is required of the reader than conversance with the language in which the text itself is presented. By contrast, in the case of Poinso’s work, as Santaella-Braga remarked,²⁹ even on the surface “the reader is not granted dispensation from knowledge of the dialogue, implicit in the work, with the centuries-old strata of commentaries and discussions of the Aristotelian corpus”.

Second, the style of the Cartesian texts better suits the modern frame of mind, though this is changing, even as modernity fades in the postmodern morning light. Nowadays, D. P. Henry remarks optimistically,³⁰ “the supremely professional character of Poinso’s extensive text, along with the dazzling scope revealed by the huge synoptic table of the work are, one feels,” likely to appear today as “immensely superior to the rather chatty tone of his contemporary Descartes — a tone symptomatic of philosophy’s decline towards the drawing-rooms of ‘well-bred company and polite conversation’ favored by Locke.”

We are already in a post-modern period, to be sure, but we have not been there long enough to achieve the reflective distance presupposed for a general *prise de conscience* appropriate to this change of age. Even so, we are in a position to say that, considered today, Descartes and Poinso are alike doorways to the past. Poinso is a doorway to the past of philosophy in the Latin Age as the incubation of semiotics.

²⁷ Descartes 1637: 112.

²⁸ Descartes 1631: 115.

²⁹ Santaella Braga 1991: 156.

³⁰ Henry 1987: 1201.

Descartes is a doorway to the modern past which developed in a way that left semiotics not only on the sidelines but, in the actual modern development, drove the doctrine of signs first to the sidelines and then underground (whence, as we have noted, Sebeok calls “cryptosemioticians” those modern figures such as Jakob von Uexküll who, in spite of the modern philosophical climate, succeeded to contribute to semiotic development).

But the future which Descartes once portended is now behind us, while the development of the doctrine of signs as Peirce portended it belongs to a future for intellectual culture prospectively new, because more expansive and inclusive than modern epistemology with its *ne plus ultra* was able to portend or imagine. The Way of Ideas, as Bertrand Russell famously testified, can result only in solipsism.³¹ “Common sense sees reason to attribute many of our sensations to causes outside our own bodies”, he tells us,³² “but where common sense goes wrong is in supposing that inanimate objects resemble, in their intrinsic qualities, the perceptions which they cause.” A visual sensation, for example, which, on Peirce’s account establishes a relation in the order of *ens reale* revealing an aspect of the physical surroundings proportioned to the nature of the thing acting and the organ of visual sense acted upon,³³ on Russell’s account is “the occurrence in the brain” itself, nothing more, as he explains:³⁴

What I maintain is that the occurrence in the brain is a visual sensation. I maintain, in fact, that the brain consists of thoughts — using ‘thought’ in its widest sense, as it is used by Descartes.

³¹ “Those — and I fear they are the majority — in whom human affections are stronger than the desire for logical economy, will, no doubt, not share my desire to render solipsism scientifically satisfactory”, Russell reports (1959: 105). But he makes clear that there is no other alternative logically compatible with modern mainstream epistemology, however much one or many seek to evade the consequence. Maritain too (1959: 100) has said as much: “Every realism that comes to terms with Descartes and Kant shall one day see that it belies its name.”

³² Russell 1959: 23.

³³ See the full discussion of the modern idea of sense qualities contrasted with the view Peirce assimilates to the doctrine of signs from his predecessors in Deely 2001.

³⁴ Russell 1959: 25.

... What I maintain is that we *can* witness or observe what goes on in our heads, and that we *cannot* witness or observe anything else at all.

In sum,³⁵ “the whole of what we perceive without inference belongs to our private world”. To what lies beyond we have no access. Russell, at the end of modern times, restates as his reason for so thinking a pure echo of what we heard from Descartes at the modern beginning:³⁶ “ideas are strictly speaking the only immediate objects of my sensory awareness.”

For Poinset, this is pure dreaming. Sense data are not at all ideas or mental representations but the partial self-presentations of things as existing acting here and now. And there are no “atomic sense data” given in isolation, for what overcomes the isolation of a given “sense datum” is its semiotic link suprasubjectively tying proper to common sensibles and the combination to an awareness of physical stimuli from the surroundings of the organism sensing.

Every “atomic” sense datum is rather *molecular* in structure, as we saw above, so that, simultaneously but semiotically, the color reveals also a shape, a movement, and so on, stimulating further the interpretive activity of the organism to form “ideas” which are not at all the terminus of our awareness but rather the foundation for our relations of awareness of the physical stimulus arising “ab extra” as this or that. There, with the stimulus interpreted, lies the object: terminus, not foundation, of the organism’s cognition and cathexis. The relation between the two, suprasubjective in principle, will belong to the order of *ens reale* through both the stimulus and the interpretive response if the organism “gets it right”, but at least to the order of *ens reale* in the stimulus even if in the conceptual interpretive response as mistaken the organism has introduced already and unconsciously rather a disorienting element of *ens rationis*. Yet, in either case, the object in all of its aspects belongs to the public sphere, communicable in principle

³⁵ Ibid. 27.

³⁶ Descartes 1641: 52. Recall the second paragraph opening chap. 7, pp. 67–68 above.

to conspecifics or even to members of other species whose Umwelt overlaps that of the perceiving organism. If the perceiving organism is a semiotic animal, it can even go on from there to philosophize or to develop a scientific program respecting the object.

Note that at every step, in sensation precisely considered no less than in sense perception similarly considered, the relations constituting the awareness of the object as also constituting the object interpreted as this or that are triadic relations whereby one element of the awareness makes present some element other than itself to or for the perceiving organism. That is precisely in what semiosis — the action of signs — consists; and that, the action of signs, is precisely what, when studied and thematized, gives rise to semiotics as a “body of knowledge”, just as the study of the behavior of organisms gives rise to the “body of knowledge” we call today biology.

So, today, Descartes and Poinso are in one sense *both* Evening Stars, their work “doorways to the past”.

In Poinso’s case, the past onto which his work on the doctrine of signs gives entry spans the full twelve-hundred years of the Latin age, but brings into particular focus the last three centuries of that age as seen from Iberia, where the doctrine of signs first became “a matter of daily dispute in the schools”.³⁷

In Descartes’ case, the past onto which his work gives entry spans no more than an anticipation and launching of the three centuries of modernity’s determined effort to present itself as the once and future truth owing nothing to history and the *common experience* of mankind.

But there the similarity ends, and the roles of Descartes and Poinso as intellectual models undergo, as we have seen above, the dramatic reversal where, in the postmodern dawn, it is *Poinso* who has become the Morning Star and Descartes the Evening Star; nor does it seem likely, or even possible, that any future turn of intellectual events will or could place Descartes as the star of a new dawn! As the reader no doubt knows, it is only the revolution of the earth round the sun

³⁷ Poinso 1632a: Book I, Question 5, 194/39–40.

which determines when Venus as one and the same heavenly body will appear now as Morning Star and now as Evening Star. But it is the *cyclical* character of planetary movement which makes this “role reversal” a regular recurrence, while semiosis has rather a *spiral* character.³⁸ In this spiral, events tend to come “full circle” only once, if at all. In the spiraling of human understanding from the Greek awakening of philosophy, through its Latin phase, Peirce was the Evening Star of the preceding turn of the spiral, wherein Descartes stood as the Morning Star of the new tomorrow. But now we have come in this respect a peculiar “full circle”, wherein the very past rejected by modernity — the initial Latin establishment of semiotic consciousness — has re-emerged as a demand of the future surpassing the *ne plus ultra* of modern epistemology. It is a singular event within a spiral of growth, not a cyclical one of simple repetition, yet one in which the analogy holds of one and the same body (the body of Peirce’s work) shining first as Evening Star, then as Morning Star — Evening Star of Latinity, Morning Star of Postmodernity as the recovery, advance, and expansion to its full potential (coextensive with human understanding as able to know being in its full extent) of semiotic consciousness, the consciousness distinctive of human beings: a consciousness capable of being “metasemiotic”, not in the sense at all of escaping semiosis, but in the sense of becoming *aware of semiosis* and of the imperceptible being proper to signs in all that semiosis touches, from the beginning of the universe through every present time.

To thinkers of his time, Descartes proposed, as the necessary solution to the muddle of the Latin past, adoption of a new method without which³⁹ “the pursuit of learning would, I think, be more harmful than profitable”. “By ‘a method,’” he explained:⁴⁰

³⁸ The so-called semiotic spiral was first introduced in Deely 1985: 321, but has proved so basic (the editors of *Semiotika alused*, the Estonian 2005 expanded 4th ed. of Deely 1990, put the semiotic spiral drawing on the outside front cover) I have had to recur to it in many discussions since — e.g., 1994: ¶224; 2001: 471–72, 726; 2001a: 28; 2003b: 164; 2004d: 10; 2008/9: Section 15.5.

³⁹ Descartes 1628: 17.

⁴⁰ *Ibid.* 16.

I mean reliable rules which are easy to apply, and such that if one follows them exactly, one will never take what is false to be true or fruitlessly expend one's mental efforts,⁴¹ but will gradually and constantly increase one's knowledge till one arrives at a true understanding of everything within one's capacity.⁴²

As to the writings of his forebears, both Greek and Latin, insofar as they contain, by virtue of the natural light, scattered glimmers of the Cartesian method, those writings perhaps deserve to be read, but with the grave *caveat* as we noted above,⁴³ namely,⁴⁴ the "considerable danger that if we study these works too closely traces of their errors will infect us and cling to us against our will and despite our precautions".

In other words, what is proposed as novel in the Cartesian system is the system itself, whole and entire, and in particular the method of analysis of objects into their simplest components, buttressed by methodical doubt⁴⁵ maintained at each step of the way. Adoption of the Cartesian approach, moreover, is recommended as necessary from the outset if "the pursuit of learning" is not to be, as by implication it has perforce always heretofore been,⁴⁶ "more harmful than profitable".

⁴¹ Hence Descartes' assurance to Mersenne in his letter of 27 February 1637 (in Kenny ed. 1970: 30) that his method "consists much more in practice than in theory" and "extends to every kind of subject-matter."

⁴² The requisite rules, of course, Descartes set himself to supply, and with the hindsight of three centuries I can confidently report to you that, while Descartes' various discourses in this area are still widely read by philosophy students, they have nowhere served for the complete rebuilding of the edifice of human knowledge that Descartes envisioned for them. The issuance of "promissory notes" in philosophy, still popular in analytic circles today, may be said to have been begun by Descartes; but the last three hundred years tend to discredit the practice when history is made a part of its consideration.

⁴³ See chap. 7, p. 71 middle.

⁴⁴ Descartes 1628: 13.

⁴⁵ See Descartes 1641: First Meditation — a doubt, remember, which, however remote or ridiculous, treats every proposition it can touch "as though it were false"; whence Peirce famously remarked of the Cartesian "methodic doubt" (1868: CP 5.265) that "this initial skepticism will be a mere self-deception, and not real doubt". But let us take up this matter in the concluding volume of our "Postmodernity in Philosophy" Poinset trilogy, *Peirce and Poinset*, forthcoming.

⁴⁶ *Ibid.* 17.

Even so, Descartes may be said to have spoken for his age in expressing the desire for a new approach to the Book of Nature that characterized the birth of modern science, ideoscopy as a mainstream development. And the move to ideoscopy was needed if the human mind in its orientation to being was to mature, as Aquinas well learned from his master Albertus Magnus and expressed clearly in his work.⁴⁷ The mistake which Aquinas avoided, however, as also Poinso after him, was the very mistake of the Enlightenment into which Descartes fell by anticipation. This is the mistaken idea that cenoscopy is only a private matter to be replaced (rather than supplemented and extended) by ideoscopy as the semiotic animal, in Descartes' words,⁴⁸ seeks "to encompass in thought everything in the universe, with a view to learning in what way particular things may be susceptible of investigation by the human mind."

The Place and Role of "Method" in Philosophy

Poinso's approach to this most basic problem of philosophy, thus, was in almost every respect the contrary opposite to what Descartes came to propose with his "method" — a method, as we have seen,⁴⁹ actually suitable only for angels (or, secondarily, for "separated souls").⁵⁰ To begin with, Poinso did not think that there was any sure and easy method, old or new, that would lead to the infallible discovery of philosophical truth. For him, there was no substitute for studying with a cenoscopic eye the works of those who had gone before along with the analysis of our common and special experiences alike. The indispensable method for doing this⁵¹ is to reduce the arguments to be

⁴⁷ See chap. 1 above, p. 7f. at note 10.

⁴⁸ Descartes 1628: 31.

⁴⁹ Chap. 4 above.

⁵⁰ Cf. Aquinas c.1266: *Summa theologiae* 1.89.1, "Whether a human soul separated from the body can understand anything?"

⁵¹ See Poinso's "Prologus Totius Dialecticae, Praeludium Primum: quo proponitur dialecticae disputationis exercitium et praxis", in the *Artis Logicae Prima Pars* (1631), 3a1-5a3 (= *Tractatus de Signis*, "First Prologue: Wherein is set forth the exercise and practice of dialectical disputation", 10/1-13/12).

found in previous authors to their logical core and express this core in strict logical form as the means whereby hidden assumptions and unsound premisses could best be brought to light.

Hence Poinso rejected Descartes' view that "ordinary dialectic is of no use whatever to those who wish to investigate the truth of things",⁵² though he *agreed completely with Descartes* in repudiating those who prescribed the forms of dialectic as a means for taking, "as it were, a rest from considering a particular inference clearly and attentively".⁵³ The forms of dialectic, for Poinso — the necessary aspect of even probable syllogisms — are merely the preliminary instrument for positioning ourselves to adjudicate what is philosophically sound or unsound in the views of another thinker, ancient or modern.

The disagreement between Poinso and Descartes over method extended also to the object of our knowledge.

Poinso was not a reductionist. He did not believe that higher orders of difficulty in knowledge could be reduced to complex arrangements of ultimately simple objects, so that the complex could be deduced from the simple merely by a careful observation of the proper ways in which simple objects combine to form complex wholes. Poinso accepted rather a doctrine of substance according to which ontological unities in nature do not ordinarily correspond, and can seldom be made to correspond, in one-to-one fashion with objective unities represented in knowledge (a point that Cajetan before him had already clarified⁵⁴).

Knowledge, for Poinso, consists essentially in the establishment, for any given case, of a correspondence in relationships between

⁵² Descartes 1628: 37.

⁵³ Descartes 1628: 36. Cf. Poinso 1632a: 10/1–13/12.

⁵⁴ In his *Commentarium in Summam Theologicam. Prima Pars* (1507), Quaestio 1, Articulus 3, where Cajetan enunciates the principle that differences among things are quite another matter than differences among objects. Poinso then shows this principle to be one of the fundamental principles of the doctrine of signs: see the *Tractatus de Signis*, Book I, Question 2, 149/41–151/21, Question 4, 187/28–190/23 and note 33 thereto, p. 187; especially Book II, Question 1, 235/36–236–46, Question 5, 270/37–271/21. See also Cajetan's comments on q. 28, art. 1 of this same part of the *Summa*, partially cited in note 18, p. 95 of the *Tractatus de Signis*.

objective representation and ontological reality, allowing in particular for objective states of affairs which have no ontological counterpart existing apart from their representation.⁵⁵ To know the truth in any

⁵⁵ Poinso 1635: 77b26–78a46 (in 1632a: 190n35): “In the object of a power [i.e., the specific aspect presented to an organism cognizing some object] the focus of attention is not formally mind-independent or entitative reality, according as the object has being in itself [i.e., the object as it is also a thing], but the proportion and adaptation to the power. This proportion indeed as it subjectively exists in a thing must be mind-independent; but in terms of the relation to the power, that it exists subjectively in the thing itself is not what is regarded, but rather that it exists *objectively* relative to the power in question — although on other grounds, if the power itself respects only mind-independent being [as the external senses], it will also require a mind-independent being in the object, not as existing, but as related to the power. For existence is always in an order to itself and subjectively, whereas to a power it always pertains objectively. Whence a mind-dependent being, although in itself it has subjectively no reality, can still be the object of an act of understanding and specify that act by reason of an objective proportion which it takes on in an order to the understanding when it has a real fundament and is conceived on the pattern of mind-independent being. For then it can perfect and specify the understanding by a mind-independent perfection, not one innate to itself or existing in itself, but one borrowed and appropriated from mind-independent entity, on whose pattern it is objectively conceived, as we have said in the *Logic* 2. p. q. 1. art. 3 [Reiser ed., 265b44–266b12]. Thus, even though reality and the character of being belongs to mind-independent and mind-dependent being analogically, and not simply in the same way, nevertheless, objectively it can be found in a mind-dependent being simply in the same way as in a mind-independent being, because, presupposing a borrowing from mind-independent being and from its fundament, the very proportion and adaptation to a cognitive power (which alone pertains essentially to an objective rationale) is there, for the mind-dependent being is truly and properly coapted, so that it terminates a true and proper act of understanding exactly as do other objects.

“Nor does it matter that the mind-dependent being has existence from the act itself of understanding; therefore it does not perfect and specify that act, but is perfected by it. The answer to this is that the mind-dependent being has existence from the understanding after the manner of an existence not mind-independently, but denominatively, that is to say, as regards the denomination of ‘known thing’, which follows upon an act of understanding. And for this reason such a consequent denomination is not a rationale perfecting the understanding, but as one effected and consequent, yet the mind-dependent being does perfect the understanding insofar as, antecedently to this denomination, by reason of its fundament, it takes on an objective adaptation and proportion whereby it truly and properly terminates as an object of understanding, by the fact that, even though it is a constructed or fictive being, it is nevertheless not fictively objectified and understood, but terminates a true act by a true termination, although by a fictive entity.”

The same basic notions hold for the higher powers of purely sensory life, as Poinso shows in Article 3 of the First Preamble to the *Treatise on Signs* (1632a: 66/47–68/34, 73/16–74/9).

given case is critically to determine which pattern of objectivity we are dealing with in this or that aspect of experience — here *ens reale*, there *ens rationis*, there again a mixture of both.⁵⁶ In other words, Poinso was a quintessential scholastic at the very moment, historically, when a growing number experienced the very complexity of the results arrived at by the scholastic method and the very multiplicity of authorities established in the scholastic line of the Latin “commentaries” as a crushing burden more trouble to learn than it was worth.

The Modern Rebellion against Latin Scholasticism

There was justice to the modern rebellion, *let there be no doubt*. The line of Latin commentary in the university world had indeed gotten out of hand, and left little to no oxygen for introducing ideoscopy into the curriculum. Scholastic logic, for example, the entry into the system of philosophy in the mainstream university curricula against which Descartes and the moderns rebelled, demanded seven years’ study in Poinso’s university, three in formal logic and four in so-called “material” logic, which was the study of logic as an instrument not merely for restating arguments in form but for adjudicating therewith the truth of their contents. Today, we see the concerns of so-called “material logic” as the proper domain of the philosophy of science. But to see the “philosophy of science” for what it really is, there had first *to be* the development of *ideoscopic* science, and an admission of that science — ideoscopy — into the university curriculum. This needed development would take some centuries; and indeed it can be observed that, while it took even the English and the Continental universities until well into the 19th century to achieve this, as late as the 20th century the Spanish universities had not quite caught up with the needs of the future in this regard.

⁵⁶ The Latin context in which Poinso is concerned to synthesize his views, the landscape he surveys in the area we call noetic, is rich beyond imagining. “Like some great philosophical Indies, it now lies in wait for its Columbus”, wrote a current Marco Polo of studies in Latin philosophy (Doyle 1984a: 121). See Doyle 1987, 1988, 1990, 1994, 1997.

But for richer or for poorer, in sickness or in health, Poinso was not a reformer. Imbued with the deepest respect for tradition, Poinso felt charged with a double mission: not only to advance the truth, but also to do so in a way that carried with it the whole, or at least as much as possible, of past truth cenoscopically attained. Simonin has described his dilemma quite well; and though we have quoted him on this point above, the quote bears amplification here:⁵⁷

Poinso is determined to let no new achievements be lost, and to profit from the final developments of a scholasticism which had exhausted itself in the plenitude of its refinements.

By working in this way, Poinso left a heritage which, practically speaking, *could not* be appreciated in his own time. The Enlightenment may have involved the essential error that ideoscopy would eventually displace cenoscopy entirely, rendering cenoscopic knowledge nugatory; but the Enlightenment also embodied the essential truth that ideoscopy is essential to the maturation of human understanding; and that interpreters of texts for which “divine revelation” is claimed, Christian, Muslim, Mormon, or *whatever*, cannot be allowed to interpose themselves in the way of — as substitutes for! — this natural development. It is perhaps no accident, and no small thing, that, as mentioned earlier,⁵⁸ just as Poinso suppressed the traditional (pre-Galilean) treatment of astronomy in his presentation of natural philosophy, so also did he suppress the Garden of Eden (“original sin”) story in his treatment of the theology of creation.



Well, there you have it! Descartes and Poinso stood at a crossroads in the crucial matter of human knowledge, its nature and extent, the matter of signs and ideas. Descartes took the Way of Ideas. The Way of Signs was left to be grown over and hidden in the modern underbrush. By the time Charles Peirce came along, he found himself in the dif-

⁵⁷ Simonin 1930: 145.

⁵⁸ Chap. 3, p. 19, final paragraph.

ficult position of “a pioneer, or rather a backwoodsman, in the work of clearing and opening up what I call semiotic, that is, the doctrine of the essential nature and fundamental varieties of possible semiosis; and I find the field too vast, the labor too great, for a first-comer.”⁵⁹

Today we are a little more lucky, for we see clearly now that Peirce was anything but a first-comer. The true “first-comer”, we now know, was Augustine of Hippo who, in his ignorance of Greek, launched the Latins upon a path hitherto unknown in philosophy, what was to become the Way of Signs. But that opening of a new path could only reveal itself when the being proper to sign as a relation irreducibly triadic, as well as (like every relation) suprasubjective in principle (whether determined by circumstances to the order of *ens reale* or *ens rationis* or both in different intermingling ways), had been brought to light. And this is what Peirce achieved in his remarkable *Tractatus de Signis*, culminating a Latin discussion that had developed over fully twelve centuries but whose fruits were ignored in the dramatic events precipitating the turn to ideoscopy.

After that, after Peirce's achievement, the Way of Signs was open to pursuit, and the natural shift from *esse* to *agere* would lead future investigators down that new and promising path. What Peirce cleared in ending modernity, in short, proved to be nothing less than that very entry to the Way of Signs that Peirce in his day had been the first fully to open, but which had since been lost in the underbrush of modernity's distinctive forest of ideas.

We are again today at the crossroad where Peirce and Descartes stood at the glorious opening of the 17th century. Only now ideoscopy has fully established itself, and cenoscopy is beginning to reclaim its own territory.

That is why, this time, a new generation of philosophers and students of philosophy are perhaps more likely to follow the lead of

⁵⁹ Peirce c.1906: CP 5.488. See chap. 10, p. 106 above, on Peirce's unawareness of the historical origins of semiotic consciousness as *doctrina signorum* in the 4th century work of Augustine, as also of its early 17th century protosemiotic culmination in the *Tractatus* of Peirce. See too note 25, p. 115, in this chapter on the continuity of the name “doctrine of signs”.

Poincaré and Peirce after him — that is, if “postmodernity” is to become more than a shibboleth, and the new era of intellectual culture and human understanding “after modernity” is to have a positive content to offer as modernity fades. How changed are the aspects of the respective works of Descartes and Poincaré as we view now, in prospect, the postmodern dawn. The modern break with philosophy’s past is overcome, as the nature of cenoscopy demands that it must be. Modernity fades in the light of its Evening Star, even as Latinity’s Evening Star shines now instead as the Morning Star of the 21st century’s postmodern parturition of semiotics and a new epoch of intellectual culture.

References, Historically Layered & Annotated

No one writes after they die. For this reason, ideally, as a matter of principle, the reference date for a work in relation to its author should always be a date from within the lifetime of that author or "source". Other dates may be important in the particular case, as when the work is a translation or a particular edition (the "access volume"). But in every case the source date ideally should come from the lifetime of the source in question, with such annotations as are necessary added to the References in cases where source and access dates differ.

The reference section of this book has been constructed according to this principle, termed the *historical layering of sources*, first outlined in the *Style Manual* of the Semiotic Society of America. This principle merits universal bibliographical adoption, because it makes explicit the historical levels on which any given discourse draws while at the same time making explicit the relation of any text or edition used to the original source work actually produced within the lifetime of each author cited. For the details of this style sheet, I refer readers to its first published form, "Semiotic Society of America Style Sheet", *The American Journal of Semiotics* 4.3-4 (1986), 193-215.

Here I wish mainly to direct attention to the fact that, under the authors of cited sources arranged alphabetically, the dates when those sources first came into existence can be seen at a glance, like geological layers in a rock or the age-rings in a tree trunk. For an historical work the advantage of this system should be obvious at once. But in fact human understanding itself is an historical achievement, and the value of this bibliographical principle is just as great even in purely speculative and theoretical works in any field — such as the present work in the perspective of intersemioticity.

I have aimed to restrict this list of References to those works actually cited in the course of the chapters; and, without exception, the

works included in this final list are the books and articles which I have had in hand. I have tried so to record them that the interested researcher could easily take in hand exactly what I had in hand, and go from there. Eschewing bibliography for bibliography's sake, the list is not a list of secondary sources relied on third-hand, nor an inflated list of works known or "consulted", but an effort to provide the reader with an inventory of the actual bookshelf, as it were, utilized in order to write this particular book. The intention is to provide the interested reader with a basis as accurate as possible for evaluating the sources the author employed, without prejudging other works which the reader might find useful or necessary in further research into topics touched upon.

The specific conventions concerning the dating of works and authors that can be assigned only an approximate timeframe needs to be made explicit. In such cases the following prefixes are attached to assigned dates:

- a. = *ante* or "before";
- c. = *circa* or "approximately";
- fl. = *floruit* or "the prime of life", "the time of flourishing";
- i. = *inter* or "between";
- p. = *post* or "after";
- r. = *regnat* or "rules", the beginning of the period of occupation of an office;
- u. = *usque* or "until", "up to the time of": used to indicate the outside date on which an author worked on a ms. left uncompleted.



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Note. The designation **CP** abbreviates *The Collected Papers of Charles Sanders Peirce* in eight volumes, bibliographical entry "1.1866–1913" below.

The designation **EP** followed by volume and page numbers with a period in between abbreviates the 2-volume set of *The Essential Peirce* (Bloomington: Indiana University Press, 1992, 1998, respectively), a selection of those essays from the complete Peirce corpus (that is, unpublished as well as previously published) deemed most seminal and central to Peirce's appropriate perspective (pragmatism or semiotic) made by the personnel of the Peirce Edition Project under the general editorship of Nathan Houser. EP 1 covers the years 1867–1893, and mostly duplicates materials also available in CP; EP 2 covers 1893–1913, and includes mostly ms materials not previously available in published form.

The designation **NEM** abbreviates *The New Elements of Mathematics*, ed. Carolyn Eisele (The Hague: Mouton, 1976), 4 volumes bound as 5.

The designation **W** followed by volume and page numbers with a period in between abbreviates the ongoing *Writings of Charles S. Peirce: A Chronological Edition*, initiated as the Peirce Edition Project at Indiana University–Purdue University/Indianapolis by Edward C. Moore under the general editorship of Max H. Fisch, succeeded first by Christian Kloesel in late 1984, and then in late 1993 by Nathan Houser (Bloomington: Indiana University Press, 6 vols. — 1982, 1984, 1986, 1989, 1993, 2000 — of a projected 20 published so far).

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- c.1907. Ms. 318 in Robin 1967: 36–7, numbered ISP 00002–00350: one of the most important of Peirce’s literary remains, this many-layered manuscript has never been published in full. Where I have drawn on unpublished sections I have used a photocopy bearing the sheet numbers stamped by the Texas Tech Institute for Studies in Pragmaticism (hence: ISP nos.) on the electroprint copy Ketner with associates had made from microfilm, and then checked against the original in the Harvard archives. Further subdivisions and rearrangements have been made since.
- Originally an untitled letter-article to the editor of *The Nation*, this ms. has several partial draft endings signed “Charles Santiago Peirce”, but no single, consecutive, complete draft as a whole.
- Part appears in CP 5.464–496 under a title supplied by the editors of the volume, “A Survey of Pragmaticism” (cf. Burks p. 299). A small segment appears under the title “From Pragmatism” in NEM III.1: 481–494.
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Note. A complete table of all the editions, complete and partial, and in whatever language, of Peirce’s systematic works in philosophy and theology is provided in Deely 1985: 396–397. The present work focuses only on Peirce’s *ex professo* philosophical writings, the principal edition of which is published under the title *Cursus Philosophicus Thomisticus*, ed. by B. Reiser (11 February 1880–1940 September 8) in 3 volumes (Turin: Marietti, 1930, 1933, 1937). In its original publication, however, Peirce’s philosophical volumes had no general title beyond that of the five individual volumes themselves, appearing sequentially in 1631, 1632, 1633, 1634, and 1635, as listed. Working from the Reiser edition, then, R followed by a volume number (I, II, or III) and pages, with column (a or b) and line indications, shows where the text in question is to be found in the best Latin edition of Peirce’s philosophical writings.

1631. *Artis Logicae Prima Pars* (Alcalá, Spain). From R I: 1–247.

The opening pages 1–11a14 of this work, and the “Quaestio Disputanda I. De Terminis. Art. 6. Utrum Voces Significant per prius Conceptus an Res” pages 104b31–108a33, relevant to the discussion of signs in the *Secunda Pars* of 1632 (entry following), have been incorporated in the 1632a entry (second entry following, q.v., pp. 4–30 and 342–351 “Appendix A. On the Signification of Language”, respectively), for the independent edition of that discussion published by the University of California Press.

1632. *Artis Logicae Secunda Pars* (Alcalá, Spain). From R I: 249–839.

- 1632a. *Tractatus de Signis*, subtitled *The Semiotic of John Peirce* (First Edition, Berkeley: University of California Press, 1985; Corrected Second Impression, South Bend, IN: St. Augustine’s Press,

2007), extracted from the *Artis Logicae Prima et Secunda Pars* of 1631–1632 (above two entries) using the text of the emended second impression (1932) of the 1930 Reiser edition (Turin: Marietti), and arranged in bilingual format by John Deely in consultation with Ralph A. Powell, as explained in Deely 1985: 445ff., q.v. Pages in this volume are set up in matching columns of English and Latin, with intercolumnar numbers every fifth line. (Thus, references to the volume are by page number, followed by a slash and the appropriate line number of the specific section of text referred to — e.g., 287–23/26.)

An independent translation of what in the 1985 Deely edition are Books I–III of Poinset's *Tractatus de Signis* (=Logica 2. p. qq. 21–23, I 646a–749b47), without the First and Second Preambles on Mind-Dependent Being and Relation, is available in Spanish: Juan de Santo Tomás, *De Los Signos y los Conceptos*, Introducción, traducción y notas de Mauricio Beuchot (México City: Universidad Nacional Autónoma de México, 1989).

The Deely edition of Poinset's *Tractatus de Signis* is also available in electronic form as a full-text database (both in a stand-alone disk version and as part of the Aquinas CD-ROM database), enhanced with new material on relation, and with cross-references and editorial materials fully hypertext-linked, in the Past Masters series (Charlottesville, VA: Intelex Corporation, 1992).

1633. *Naturalis Philosophiae Prima Pars: De Ente Mobili in Communi* (Madrid, Spain). In R. II: 1–529.
- 1633a. By reason of its importance for the contemporary discussion of semiotic categories, I give a separate listing here to Poinset's treatment *De primo cognito*, "of being-as-first-known", within his *Philosophiae naturalis prima pars* (*Part I of Natural Philosophy*), as follows: Quaestio 1, "De Scientia Philosophiae et Ordine Cognoscendi" ("On Philosophical Knowledge and the Order of Knowing"), articulus 3, "Utrum magis universale, atque adeo ipsum ens ut sic, sit primo cognitum ab intellectu nostro" ("Whether the more universal, and therefore being itself as such, is primarily known by human understanding"), Reiser ed. vol. II, 20a2–33b38.

The most important commentary on this text is to be found in Guagliardo 1994.

1634. *Naturalis Philosophiae Tertia Pars: De Ente Mobili Corruptibili* (Alcalá, Spain); in R. vol. II: 533–888.
1635. *Naturalis Philosophiae Quarta Pars: De Ente Mobili Animato* (Alcalá, Spain); in R. vol. III: 1–425.
1643. *Tomus Tertius Cursus Theologici. In Primam Partem Divi Thomae a quaestione 27 ad finem usque eiusdem Partis* (Lyons). The Solesmes edition of this work (Vol. IV; Paris: Desclée, 1946) is the best modern edition. **Contents:** *In Iam Partem: Tractatus de Trinitate; Tractatus de Creatione; Tractatus de Angelis* (see 1643a following for details); concluding with an editorially added text of the, in Poinso's time traditional, *Tractatus de Opere Sex Dierum* (Solesmes 1937: 837–921), though set in a smaller type in deference to Poinso's own original choice that it not be included at all in the published *Cursus Theologicus*.

This, then, is the text of the second manuscript bearing on matters pertinent to consequences of the Galileo case, containing the Garden of Eden tale, which Poinso himself suppressed from publication, apparently by reason of not considering it entirely a matter of sober reason in light of our changing understanding of the physical universe, particularly as regards the uniqueness (or, rather, lack thereof) of the sun among the heavenly bodies known as stars — a concrete application of his *monitum* at the conclusion of his “material logic” of 1632, a work we would today classify as a work in the methodology or philosophy of science (Poinso 1632: q. 27, art. 2., 839a8–b10): “Note finally that since, in the present state of the sciences, there are not only genuine points of certainty, but many uncertain opinions as well, as regards those matters which are subject to opinion, scientific confidence is inappropriate, for in truth such matters of opinion do not pertain to science as regards the assent proper to it, even though, by the fact that the opinions bear on the same objects a science is concerned to understand, they must be weighed within that science, yet they create a different state of mind.”

- 1643a. “Tractatus de Angelis” in *Joannis a Sancto Thoma Cursus Theologicus Tomus IV*, Solesmes ed. (Paris: Desclée, 1946), pp. 441–835. Exposition and commentary in Deely 2004.

This is the second most extended treatment of this subject that comes down to us from the Latin Age, comprising 248

pages in folio, compared to the 95 folio pages on the subject in Aquinas himself. The earlier yet longer, 632 folio page treatment in Suárez, is fully known to and taken into account by Poinso: e.g., see disp. 39, art. 3, n. 5sqq.

This *Treatise on Angels* is set within the larger project of Poinot's *Cursus Theologicus*, wherein it occurs as the 39th through 45th "disputations" thereof. The treatise addresses specifically the matter of Questions 50–64 & 106–107 of the *Prima Pars Summae Theologiae* of St. Thomas Aquinas (= Aquinas 1266) with a "Summa litterae" (or Summary statement), and with Poinso's own expanded discussions of the parts he deems more in need of exposition ("Disputations").

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INDEX

— Note & Abbreviation —

SMALL CAPS are used to set off entries likely to be of greater assistance to the reader
 q.v. = "quod vide" or "which see", meaning "take a look at this particular item or work"

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