

## Quo Vadis, John Deely? Reflections on Deely as Teiresias and Sign as Intensive Quantity

Peter Redpath

St. John's University, Jamaica, NY

John Deely's recent tome, *Four Ages of Understanding*, is a masterful reinterpretation of Western philosophy's history in light of the notion of sign.<sup>1</sup> While I do not agree with every detail of Deely's account in this work, I substantially agree with what he says. I measure Deely's excellence in light of my recent trilogy of books, and subsequent research, about Western philosophy's history.<sup>2</sup> Deely starts his account with a hypothesis that, he says, frames an apparently "outrageous" tale: "philosophy as it has been taught in our American universities since their beginning in 1636 has mainly left out so many irreducibly key elements as to get the whole thing wrong, when it has not been made downright incomprehensible. And philosophy itself as a discipline of thought has suffered severely in consequence."<sup>3</sup> My account starts with a similarly outrageous tale. Deely does not go far enough. He should move the date of decline back about twelve centuries and the place to continental Europe.

When I defend this hypothesis, the reactions I get often range from bemusement to hysterical rage. Despite such reactions, I, as does Deely, have sound historical grounds that defend my hypothesis. For this setting let me cite one, Ernst Robert Curtius. In his classic *European Literature and the Latin Middle Ages*, Curtius states:<sup>4</sup>

engineering, military science, grammar, textual criticism, literary culture, gnosis - all these things can be called "philosophy" in late Antiquity. Any and every systematized branch of knowledge lays claim to the title. But the cultural ideal of late Antiquity was rhetoric, of which poetry was a subdivision. The assimilation of philosophy to rhetoric is a product of neo-Sophism. Rhetor, philosopher, sophist now mean the same thing to the Latin West too.

Curtius says, further, that the concept of philosophy "had already begun to grow vague in the third century of our era."<sup>5</sup>

I specifically mention Curtius here because of his intellectual authority about Latin literature in the Middle Ages, and because of the effect he says this battle of the arts had on reading in late Antiquity. What he says lends credibility to Deely's thesis that the notion that ideas are sign-vehicles was largely absent from Antiquity, and that, in a way, philosophical awareness starts with the transcendental awareness of sign:<sup>6</sup> "In late Antiquity, allegory becomes the basis of all textual criticism whatsoever."<sup>7</sup>

In my opinion, the reason this mode of textual criticism dominated late Antiquity is clear. Nominalism and nominalists dominated the era, as they dominate the era from Descartes onward, and they dominated the era from Homer to Socrates. By denying the transcendental function of ideas, nominalists cannot explain reading at all. Hence they tend to (1) transform the notion of reading away from abstracting meaning from a page and toward confrontation and (2) assign to reading the nature of an *ens rationis*.

In my opinion, illiteracy is the net long-term effect of the Cartesian project because this project's nominalistic character demands no communication between substances. In a sign relation, the potential knower and knowable object stand as opposite terms, or extremes in a communication relation. In a nominalistic universe, they cannot stand as contrary opposites unified by a sign because the contrariety involved in a sign relationship presupposes participation in a common genus. In a sign relationship, nominalism obliterates the generic relationship between the potential knower and knowable object through the only other extreme opposition: contradiction. In this situation, at best, the book becomes reduced to the status of an occasional cause to emote about a text, or a set of oracles about which we can express our feelings -just the way it appears to most American college students today.

In his classic *History of Christian Philosophy in the Middle Ages*, Etienne Gilson tells us that, according to Ockham, "no universal exists in any way outside of thought nor belongs in any sense to the quiddity or essence of any substance."<sup>8</sup> He adds that Ockham's final conclusion on universality was that it consisted in:

the very act of cognition subjectively present in the soul, its sole reality is the reality of the soul which produces it. As there are singular things, common images are formed, which are valid for all these objects. This community, made of its very confusion, is what universality boils down to. Universality, therefore, is self-producing in thought, under the natural action of individual things without the intellect having to produce it; it is "nature" which produces universals in us in a way that is occult and whose effects only are known to us: *natura occulte operatur in universalibus*.<sup>9</sup>

Such a view of universality is the ground of ancient poetry, sophistry, and magic; not of philosophy. In my opinion, nominalism is no philosophical doctrine, and this mental aberration did not arise with Roscelin. It arose with the ancient poets and sophists, chief among them Protagoras. Nominalism is the position that sophists ordinarily take to justify Protagoras' claim, "Man is the measure of all things."<sup>10</sup>

Ancient philosophy started as a liberation movement away from ancient magic and superstition. Hence Plato vigorously opposed the nominalism of the ancient sophists.<sup>11</sup> How is the view of Ockham that Gilson expresses above substantively different from the view of Protagoras that Plato criticizes in the *Theatetus*, or of Gorgias in the dialogue of the same name?<sup>12</sup> Or of the teachings of Descartes, for that matter? Are not they identical? Hence, in considering the question whether intelligible species that we abstract from sense images

constitute what the intellect knows, St. Thomas says that, were we to say that the intelligible species is what we apprehend, not that through which we apprehend, we would wind up holding the position of "the ancients who said that what appears is true".<sup>13</sup> Clearly, the sophists were the Ancients St. Thomas had in mind.

Surely, then, we must agree with Charles Sanders Peirce and Jacques Maritain when, as Deely indicates, they warn us that nominalism and conceptualism are essentially the same.<sup>14</sup> In addition, we have to agree with Peirce when he says that "all modern philosophy in every sect has been nominalistic".<sup>15</sup> If so, then should we not also agree with Maritain when he tells us that modern subjective idealists are "not philosophers", that what they practice is a "Grand Sophistry", and "neo-Protagoreanism", a "secularized theology"?<sup>16</sup> Is not the whole of modern thought fundamentally deconstructed, secularized Augustinian theology? Augustine in Drag?<sup>17</sup> How do we get Socrates from the head of Protagoras? If we agree with Maritain, are we not also forced to conclude that, properly speaking, the whole of modern philosophy is a flatus vocis, an empty project consisting in self-fulfilling prophecy? And do we not have to agree that the author of this empty project could not have been a philosopher?<sup>18</sup> I am certain we are, at least if we are bound by Peirce's "Ethics of Terminology".<sup>19</sup>

In a similar vein, I think we must substantially agree with Deely's account of the nature of sign and the way it functions in relation to real being and beings of reason, especially when he says: "Abaelard ... saw quite clearly that the 'problem of universals' considered in relation to the being proper to signs opens up to the whole vista of the problem of nonbeing", and "the sign in its being transcends the opposition' or difference between the orders of language ... and physical nature".<sup>20</sup> In my opinion, Armand A. Maurer's recent excellent scholarly analysis, *The Philosophy of William of Ockham in Light of Its Principles*, lends weight to Deely's thesis about the general nature of signs and Deely's observation about Abaelard's insight about nonbeing. For Maurer maintains that/considered just in itself", a specific or generic form "has no being or unity". It has being, unity, and plurality "only as it exists". Hence, Maurer, like Deely after him, rightly notes that, "above all", St. Thomas' teaching about analogy is not about terms. It "is a doctrine of judgment of analogy or proportion rather than an analogous concept. The Thomist doctrine of analogy is ... focused, not upon essence, but upon being, understood as the act of existing (esse)".<sup>21</sup>

I agree with Deely that the notion of nonbeing opens up a crucial element to understanding the proper function of signs. Simultaneously, I think that this is the precise point in Deely's historical journey that we have to ask him, "Quo vadis, John Deely?" And, as a guide for our philosophical odyssey, "Where are you taking us?" Deely rightly takes us on the road not taken, through Poinsett. We owe Deely much thanks for introducing us in such detail to Poinsett's contribution to the doctrine of signs and to the Hispanic-Latin tradition. He is right to criticize modern historians of philosophy for ignoring these crucial elements in philosophy's history. One reason they did so, however, is because the first modern histories of philosophy were written by rhetoricians heavily influenced by the Renaissance humanist tradition.<sup>22</sup> As such, their accounts were not the history of

real, temporal records. Instead, they were, as Kant calls his own historical musings *Conjectures on the Beginning of Human History*, "a pleasure trip" made "on the wings of the imagination".<sup>23</sup> In short, pure practical beings of reason: propaganda.

From Deely's account, we cannot fully appreciate this development because his road not taken is only partly taken. While traveling to Spain, he neglected to stop long enough in Italy and the countries influenced by the Italian Renaissance. In my opinion, by so doing, his historical account leaves out many of the same crucial details that all modern histories of philosophy neglect: Renaissance humanism and its attendant nominalism, which he insufficiently treats. Had Deely traced the development of the Renaissance humanist movement in more detail, I think he would have enhanced his already powerful defense of his hypothesis. This, however, is not the time or place to criticize Deely on these issues. Instead, let me focus on some things in St. Thomas that I think strengthen Deely's case and add a new dimension to his argument by (1) improving his explanation of the way negation relates to the action of signs and (2) more completely identifying the mental and physical ground of the sign relation, something for which Deely tells us Peirce had hunted.<sup>24</sup>

Considering the first point, we should recall that Poinsett says he derived the start of his doctrine of signs through some statements St. Thomas made in his *Summa theologiae* regarding relation.<sup>25</sup> If we turn to St. Thomas' detailed teaching about relation in his *Commentary on the Metaphysics of Aristotle*, we find that Aristotle and Thomas speak about relation as one of the four kinds of opposites, opposites being extreme differences.<sup>26</sup> Within this context, Thomas tells us that a relationship is a kind of sameness between two extremes.<sup>27</sup> He says, in addition, that sameness is a way of being one, as are similarity and equality, or what he calls "the primary parts of unity":

Now the parts of unity are sameness, which is oneness in substance; likeness, which is oneness in quality; and equality, which is oneness in quantity. And opposed to these are otherness, unlikeness, and inequality.<sup>28</sup>

He says, moreover, that extremes are terms or limits. As limits, they are that beyond which we can go no further: indivisibles, or ones.<sup>29</sup>

This means that, apart from *esse*, all the elements of a sign relation are ways of being one. If St. Thomas is correct, we cannot understand a sign relation without a metaphysical consideration of the notion of unity. According to St. Thomas, however, the notion of unity contains the notions of determinate negation and opposition because we derive the concept of unity from a negation of, and primary opposition, to plurality. Hence, unity and plurality are the grounds of all opposition.<sup>30</sup>

Unity, or what is undivided, however, grounds all sameness, equality, and similarity. St. Thomas holds that similarity, equality, and sameness, and their respective opposites are analogous extensions and the proper

accidents of unity. As such, they ground all plurality. And plurality grounds all difference. For Aristotle, difference is a pluralization of unity, and unity's opposite. Since the analogous extensions and properties of unity are unities, to be similar, equal, or the same, therefore, is, analogously, to be one.<sup>31</sup>

This means that to be dissimilar, unequal, or different is to be many, to be a plurality of unity. But the one and the many are opposed. Together with being and privated being, St. Thomas tells us that these notions ground all opposition and contrariety, and are the primary contraries into we reduce all other contraries.<sup>32</sup>

This being so, for St. Thomas and Aristotle, the principles of similarity, equality, and sameness, and their opposites and contraries (dissimilarity, inequality, and difference), ground all the per se accidents and relative first principles of all the sciences. This must be so, because they are the most fundamental oppositions between unity and plurality, the opposition which grounds all other oppositions and into which all others are reduced. And science studies the principles of opposition within a genus.<sup>33</sup>

In my opinion, recognition of this fundamental opposition is a main reason that Aristotle divided the speculative sciences into three classes. Since I have defended this thesis elsewhere, I will not take time to discuss it here.<sup>34</sup> Instead, at this point, let me note that St. Thomas tells us science studies real beings, and that "each thing is a being insofar as it is one".<sup>35</sup> He maintains, further, that we know all things through unity. Unity is the measure of all things,<sup>36</sup> because "to be a measure" is a property of unity.<sup>37</sup>

This is because unity stops division. Indivision brings division to an end, is that beyond which no further division exists. This means that we come to know the principles that comprise each thing's substance by dividing or resolving a whole into its component parts, "whether", as St. Thomas says, "they are quantitative parts or specific parts, such as matter and form and the elements of compounds".<sup>38</sup>

Analogously, we can call knowledge and perception "measures" of things. Aristotle maintains that we can speak this way because we know something by knowledge and perception. "[A]s a matter of fact", he claims, "they are measured rather than measure other things."<sup>39</sup> He immediately adds that thinkers like Protagoras "say nothing ... while they appear to say something remarkable, when they say 'man is the measure of all things'."<sup>40</sup> The same is true, *mutatis mutandis*, of Descartes and his progeny: while seeming to say something remarkable, in fact they say nothing.

According to Aristotle, a measure is the means by which we know a thing's quantity.<sup>41</sup> And quantity is that by which we know substance. That is, a measure is a unit, number, or limit.<sup>42</sup> He adds that we first derive the notions of measure and order from the genus of quantity. From this we analogously transfer this notion to other genera.<sup>43</sup> Hence, in a way, unity and quantity are the means by and through which we even know substance, quality - in short, everything.<sup>44</sup> Hence, he states:

Evidently, then, unity in the strictest sense, if we define it according to the meaning of the word, is a measure, and most properly of quantity, and secondly of quality. And some things will be one if they are indivisible in quantity, and others if they are indivisible in quality; and so that which is one is indivisible, either absolutely or qua one.<sup>45</sup>

In my opinion, Aristotle's points about unity being a measure of quantity and "of quality", and unity and measure being the means through which we know things, are crucial for a complete understanding of the action of signs as Deely, following Peirce and Poincaré, understands the sign relation. For, as Deely, tells us: "signs are relative beings whose whole existence consists in the presentation within awareness of what they themselves are not. To function in this way the sign in its proper being must consist . . . in a relation uniting a cognitive being to an object known on the basis of some sign vehicle."<sup>46</sup> If such be the case, then, apart from a sign relation's esse (which is ad esse), its essential nature as a one and measure constitute the ontological ground of its action.<sup>47</sup>

To understand, however, how unity and measure help ground the sign relation, we have to consider how we can analogously predicate quantity.<sup>48</sup> To achieve this, we must have a fairly precise understanding of St. Thomas' teaching about quantity. Many Thomists are familiar with Thomas' distinction between continuous and discrete quantity, continuous quantity being the proper subject of the geometrician and discrete quantity being the proper subject of the arithmetician. Few are familiar with a more basic distinction he makes between dimensive (mo/is) and virtual (virtutis) quantity.<sup>49</sup>

Continuous and discrete quantity are species of dimensive, or bulk, quantity. They result in a substantial body from emanation of a natural substance's matter to become a body divisible in one, two, or three magnitudinal limits or directions: length, width, or depth.

Virtual quantity is a species of quantity that emanates intensively, not extensively, from a natural substance's form, not its matter. The accidental form "quality", not dimensive "quantity", produces it. Aquinas describes the distinction between these two forms of quantity thus: "Quantity is twofold. One is called bulk (mols) quantity or dimensive (dimensiva) quantity, which is the only kind of quantity in bodily things. . . . The other is virtual (virtutis) quantity, which occurs according to the perfection of some nature or form." He adds that this sort of quantity is also called 'spiritual greatness, just as heat is called great because of its intensity and perfection'.<sup>50</sup> Moreover, he says:

each thing is perfect when no part of the natural magnitude which belongs to it according to the form of its proper ability is missing. Moreover, just as each natural being has a definite measure of natural magnitude in continuous quantity, as is stated in Book II of *The Soul*, so too each thing has a definite amount of its own natural ability. For example, a horse has by nature a definite dimensive quantity, within certain limits; for there

is both a maximum quantity and minimum quantity beyond which no horse can go in size. And in a similar way the quantity of active power in a horse which is not in fact surpassed in any horse; and similarly there is some minimum which never fails to be attained.<sup>51</sup>

For St. Thomas, in other words, forms and qualities have their own kind of quantity and magnitudinal limit, one that consists in the greater or less intrinsic perfection, completeness, or intensive quantity of form, not in the extension of matter throughout potentially divisible parts within a spatial continuum. We derive this notion analogously from the way we predicate perfection, or completeness, of dimensive quantity. We then transfer this notion to qualities, which, for St. Thomas, are intensive quantities.

This intensive quantum property of form is crucial to understand because: 1. it is a property that modernity had to deny to signs to get its nominalistic and sophistic project off the ground, thereby altering the action of sign relations and eliminating their transcendental aspect; 2. it enables to exist within a subject and genus the opposition between privation and possession that grounds all contrariety; 3. privation (a type of negation that requires the disposition to have a form and the absence, in a definite subject at a definite time, of the form to which one is disposed) is an essential element of the sign relation that we need to account for a sign-vehicle's ontological indifference;<sup>52</sup> 4. it explains why the sign relation must involve proportion between the knower (or perceiver) and the object known (or perceived); 5. it helps us to understand, contra Deely, that, in practice, modern science never broke away from philosophy; in practice, it broke away from Cartesian sophistry; and 6. that the whole of philosophy for the Greeks and all time is a sustained realist reflection on the problem of the one and the many.

Recall that opposition between privation and possession is the basis of contrariety.<sup>53</sup> Hence quality, or intensive quantity, as the foundation of all opposition and contrariety is, in a way, the ground of all science and the action of all sign relations. Furthermore, St. Thomas tells us that qualities are of basically two kinds: (1) essential difference and (2) differences, or alterations, of bodies capable of motion, like hot and cold, heavy and light, black and white. This second sense refers to the way we generally use the term "quality" of virtue and vice, and, in general, of evil and good", and, therefore, of intensive quantity (because it involves completeness of perfection of form).<sup>54</sup> Aristotle considers quality in this sense to be an accident related to motion or action, an intensive quantitative modification of something moved or acted upon inasmuch as it is moved or acted upon. Hence, regarding virtue and vice, he says:

Virtue and vice fall among these modifications; for they indicate differentiae of the movement or activity, according to which the things in motion act or are acted upon well or badly; for that which can be moved or act in one way is good and that which can do so in another [the contrary] way is vicious. Good and evil indicate quality especially in living things, and among these especially in those which have purpose.<sup>55</sup>

St. Thomas comments upon Aristotle's reference to virtues and vices enabling us to move well or badly that the terms "well" and "badly" chiefly relate to living things, and "especially" to those possessed of "choice". The reason Thomas gives for this comment is that living things particularly act for an end, and "rational beings, in whom alone choice exists, know both the end and the proportion of the means to the end".<sup>56</sup>

Part of St. Thomas' point in the above passage is that quality modifies a motion or action, in the sense that it places it within bounds and, in a way, gives it order and proportion, especially in connection to acting for an end. This point is crucial to understand in relation to any science involved in study of qualities, or to a proper understanding of the action and ground of signs. The reason is that every science must study a genus in relation to opposition between contrary members of a species, an opposition, like all oppositions, grounded in possession, privation, proportion, and limits. And the sign relation works in a similar way.

Modern science and the function of signs are grounded in an understanding of analogous predication, and, at least in part, this appears to be grounded upon the notion of intensive quantity. No science, then, can proceed without considering the proportionate and unequal relationship of possession and privation that a multiplicity has to a chief proximate subject, to the maximum in a species, to a one to which other things are related as numerically one end.<sup>57</sup> And no proper understanding of the action of a sign can proceed without considering the proportionate and unequal relation of privation and possession that a sign-vehicle has to two terms. For, in the sign relation, the sign-vehicle stands as a mean between extremes belonging to the same genus through an opposition of privative negation and possession, just as moral virtue stands as a mean in a relation of privative negation and possession to extremes of vice. The equal, however, is a one. As such, it is a measure. Hence, the sign relation can function as a measure indifferent to the being of its terms precisely because its being (*ad esse*) as an intensive quantum measure, an equal, causes it to function as a mean in a tripartite relation in which it is deprived, not possessed of, the *esse* and modes of unity of its terms. As a mean or middle between both terms, it relates to both extremes as a one, intermediate, or midpoint, equally deprived of both. It is neither term; it relates to both; and it is opposed to both by an opposition of privative negation, not of contrariety.<sup>58</sup> In a sign relation we can compare one term to another by relating both the terms to a sign-vehicle that stands equidistant to them in intensity, much as we can compare the heaviness of two different bodies through use of a balance scale that compares their weight relative to a state of equilibrium. This qualitative state becomes the measure of the other two, and the principle by which we know them. In a similar way, the sign-vehicle is the measure of its terms and the principle by which we know them.<sup>59</sup> This function of the sign-vehicle as an intensive quantum measure appears to be a main reason St. Thomas says that "the intelligible object and the intellect must be proportionate to each other and must belong to one and the same genus, since the intellect and the intelligible object are one in actuality".<sup>60</sup>



In conclusion, reflecting on sign as intensive quantity in terms of the metaphysics of unity and measure, first, more completely explains the nature and action of a sign; second, shows how, as a division of the metaphysics of measure, semiotics can lay legitimate claim to be a philosophical science; third, justifies Deely's claim that philosophy's immediate future demands we define human beings as "semiotic animals";<sup>61</sup> and fourth, demands more radical conclusion than Deely's claim that modern science has broken away from philosophy: the unity of the sciences is totally philosophical, as the seminal research in the philosophy of measure conducted by Charles Bonaventure Crowley, O.P., clearly shows.<sup>62</sup>

Chair Rasmussen: I would like to thank all three speakers for staying within the twenty-five minute limit.

I think the way we should proceed is to have John make a response limited to ten minutes, followed by a half-hour's discussion.

1. The reference to Teiresias, the blind Theban seer, is taken from *The Odyssey*, Book 10, 492ff. and Book 11, 90ff. (Poseidon has thrown Odysseus' ship offcourse in Odysseus' attempt to return to Ithaca, because Odysseus had blinded Polyphemos, greatest of the Cyclops and Poseidon's son. Odysseus has been told by Circe that he had to visit Hades and find Teiresias in order to learn how to make his way home. After encountering in Hades various gods and heroes, Odysseus at length meets Teiresias, who showers him with predictions as well as the information he needs to get home.) I refer to Deely as Teiresias because his text provides an essentially sound prescription for returning to real philosophizing, in contrast to philosophy as it is done in the land of dead, the dreamwalkers. I think, however, that the prescription can be improved somewhat, given greater precision, insight (hence, now it is somewhat deprived of sight) by considering sign in light of the notion of intensive quantity (quality as a measure); because quality so considered acts as a ground for contrary opposites. Some opposites have a middle that, when considered as a measure, allows us to know them. In such a condition it stands as an equal between qualitative extremes within a genus. I think that understanding this throws tremendous light on the notion of sign and a host of other concepts, such as Thomas' notion of science, and the realist philosophical foundations of modern physics, a practical science involved in mathematical measurement of qualities.

2. See my *Cartesian Nightmare: An Introduction to Transcendental Sophistry* (Editions Rodopi, B. V., 1997), *Wisdom's Odyssey from Philosophy to Transcendental Sophistry* (Editions Rodopi, B. V., 1997), and *Masquerade of the Dream Walkers: Prophetic Theology from the Cartesians to Hegel* (Editions Rodopi, B. V., 1997).

3. The "Aviso" to John N. Deely, *Four Ages of Understanding: The First Postmodern Survey of Philosophy from Ancient Times to the Turn of the Twenty-first Century* (Toronto, Buffalo, London: University of Toronto Press, 2001), viii.

4. Ernst Robert Curtius, *European Literature and the Latin Middle Ages* (New York: Published for Bollingen Foundation by Pantheon Books, Bollingen Series 36), p. 210.
5. *Ibid.*, p. 209.
6. Deely, *Four Ages of Understanding: The First Postmodern Survey of Philosophy from Ancient Times to the Turn of the Twenty-first Century*, p. 20.
7. Curtius, *European Literature and the Latin Middle Ages*, p. 205.
8. Étienne Gilson, *History of Christian Philosophy in the Middle Ages* (New York: Random House, 1955), p. 482.
9. *Ibid.*, p. 495.
10. For a more detailed defense of this thesis, see my article, "Poetic Revenge and Modern Totalitarianism" *From Twilight to Dawn: The Cultural Vision of Jacques Maritain* (Notre Dame: Distributed for the American Maritain Association by the University of Notre Dame Press, 1990), pp. 227-240.
11. See my extensive defensive of this thesis in *Wisdom's Odyssey from Philosophy to Transcendental Sophistry*, pp. 12-29. See, also, Charles Maurice Bowra, *The Greek Experience* (New York: New American Library, 1957), pp. 177, 182; G. S. Kirk and J. E. Raven, *The Presocratic Philosophers* (Cambridge, England: Cambridge University, 1966), p. 72; and Gregory Vlastos, *Socrates, Ironist and Moral Philosopher* (Ithaca, N. Y.: Cornell University Press, 1991).
12. See Plato's *Theatetus*, 152A-210C. and *Gorgias*, 459B-D. See my critique of René Descartes as a "transcendental" sophist in my *Cartesian Nightmare*, especially my comparison of him to Gorgias and Protagoras, pp. 26-27, and 106-107.
13. St. Thomas Aquinas, *Summa theologiae*, ed. Piana (Ottawa: Collège Dominicain d'Ottawa, 1941), 1, q. 85, a. 2, Respondeo: "sequeretur error antiquorum dicentium 'omne quod videtur est verum.'"
14. Deely, *Four Ages of Understanding*, pp. 246, 740n8.
15. *Ibid.*, p. 544.
16. See Jacques Maritain, *The Peasant of the Garonne: An Old Layman Questions Himself about the Present Time* (New York: Holt, Rinehart, and Winston, Inc., 1968), pp. 84-126; *The Dream of Descartes: Together*

with *Some Other Essays*, trans., Mabelle L. Andison (New York: Philosophical Library, 1944), pp. 13-29; and *Education at the Crossroads* (New York and London: Yale University Press, 1970), p. 74.

17. For an extensive defense of this thesis, see my *Masquerade of the Dream Walkers: Prophetic Theology from the Cartesians to Hegel*.

18. See Peter A. Redpath, "Why Descartes was not a Philosopher", *The Failure of Modernism: The Cartesian Legacy and Contemporary Pluralism*, ed. Brendan Sweetman (Washington, DC: Distributed for the American Maritain Association by The Catholic University of America Press, 1999), pp. 10-21.

19. Deely, *Four Ages of Understanding*, pp. 662-668.

20. *Ibid.*, p. 247.

21. Armand A. Maurer, *The Philosophy of William of Ockham in the Light of Its Principles* (Toronto: Pontifical Institute of Mediaeval Studies, 1999), pp. 78, 287.

22. Redpath, *Cartesian Nightmare: An Introduction to Transcendental Sophistry*, pp. 7-9.

23. Redpath, *Wisdom's Odyssey*, pp. 116-117.

24. Deely, *Four Ages of Understanding*, pp. 640-643.

25. Deely, pp. 473-474, and 474n100. see, Aquinas, *Summa theologiae*, 1, q. 28, a.1.

26. St. Thomas Aquinas, *Commentary on the Metaphysics of Aristotle*, trans. John P. Rowan, vol. 1 (Chicago: Henry Regnery, Co., Inc., 1961), Bk. 5, Lectio 12, n. 922; vol. 2, Bk. 6, Lectio 3, nn. 1202-1203.

27. *Ibid.*, vol. 1, Bk. 5, Lectio 11, n. 912.

28. *Ibid.*, n. 907.

29. *Ibid.*, vol. 2, Bk. 10, Lectio 2, n. 1952.

30. *Ibid.*, Lectio 1, n. 1936, Lectio 6, nn. 2036-2058.

31. *Ibid.*, vol. 1, Bk. 4, Lectio 3, nn. 564-569, 582-587.

32. *Ibid.*, vol. 2, Bk. 10, Lectio 6, n. 2058.

33. Ibid., Lectio 4, nn.1998-2022, Lectio 5, n. 2035.
34. Peter A. Redpath, "Post-Postmodern Science and Religion: A Critique", *International Journal of World Peace* 18:1 (March 2001), pp. 61-90.
35. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 2, Bk. 6, Lectio 2, n. 1176.
36. Ibid., Bk. 10, Lectio 2, n. 1952.
37. Ibid., Lectio 2, n. 1937.
38. Ibid., Bk. 10, Lectio 2, n. 1952.
39. Aristotle, *Metaphysics*, in *The Basic Works of Aristotle*, ed. Richard McKeon (New York: Random House, 1968). Bk. 10, chap. 1, 1053a32-1053b3.
40. Ibid.
41. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 2, Bk. 10, Lectio 2, n. 1937.
42. Ibid., nn. 1938-1960.
43. Ibid., vol. 1, Bk. 5, Lectio 1, nn. 752-754, 937-944.
44. Ibid., vol. 2, Bk. 10, Lectio 2, n., 1937-1938.
45. Aristotle, *Metaphysics*, Bk. 10, chap. 2, 1053b4-9. See, also, Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 2, Bk. 10, Lectio 2, n. 1960.
46. Deely, *Four Ages of Understanding*, p. 463.
47. Charles Bonaventure Crowley, *Aristotelian-Thomistic Philosophy of Measure and the International System of Units (SI)* (Lanham, Md.: University Press of America, 1996), pp. 27-28, and 42n22.
48. Aquinas, *Commentary on the Metaphysics of Aristotle*, Bk. 5, Lectio 15, n. 981, Lectiolo, n. 998.
49. For a major exception to this case, see Crowley's *Aristotelian-Thomistic Philosophy of Measure and the International System of Units (SI)*, note 47 above.

50. St. Thomas Aquinas, *Summa theologiae*, 1, q. 42, a. 2, ad 1. See also, 1, 2, q. 52, a. 1, respondeo. For a more extensive treatment of the notion of virtual quantity in Aristotle and Aquinas, see Crowley, *Aristotelian-Thomistic Philosophy of Measure and the international System of Units (SI)*, pp. 25-47, 249-260.
51. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 1, Bk. 5, Lectio 18, n. 1037.
52. *Ibid.*, Lectio 14, nn. 962-965.
53. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 2, Bk. 10, Lectio 6, nn. 2036-2058.
54. *Ibid.*, Bk. 5, Lectio 16, nn. 987-999.
55. Aristotle, *Metaphysics*, Bk. 5, chap. 14, 1020b18-25.
56. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 1, Bk. 5, Lectio 16, n. 998.
57. *Ibid.*, vol. 1, Bk. 5, Lectio 1, nn. 534-544.
58. *Ibid.*, vol. 2, Bk. 10, Lectio 7, nn. 2059-2074.
59. Crowley, *Aristotelian-Thomistic Philosophy of Measure and the International System of Units (SI)*, pp. 28-29.
60. Aquinas, *Commentary on the Metaphysics of Aristotle*, vol. 1, Prol.
61. Deely, *Four Ages of Understanding*, p. 736.
62. See Crowley, *Aristotelian-Thomistic Philosophy of Measure and the International System of Units (SI)*.