

The Green Book

THE IMPACT OF SEMIOTICS ON PHILOSOPHY

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Presented on the occasion of presentation of the first "Oscar" award
to my colleague and friend
Professor Eero Tarasti,
primus inter pares
of the semioticians in Northern Europe

John Deely

Visiting Professor of Semiotics, Helsinki University
Professor, University of St. Thomas, Houston
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In the conventional wisdom, as Descartes was the father of modern philosophy in the early 17th century, so Ferdinand de Saussure was the father of semiology in the early 20th century, and Charles Peirce the father of semiotics in that same time-frame. The picture is fair enough.

But if we ask what has been the impact of semiotics upon philosophy over the course of the 20th century, to answer anything beyond "marginal" would be an exaggeration. This situation, as I read it, is about to change dramatically. In the less than a century of dominance enjoyed by so-called "analytic philosophy" in English-speaking and Hispanic academic worlds of the late modern twilight, it was the custom regularly to issue "promissory notes" on philosophical programs, usually epistemological in character, never realized in detail. As modernity and postmodernity reach the stage of passing one another in the night, the first receding in its twilight as the other moves toward a brilliant dawn, I would like to give a passing example of a reverse procedure. Instead of going from a brief programmatic statement to a grand project never to be fulfilled, I want to present instead an abstract of an already completed larger project, a setting of contemporary semiotics fully within the horizon and context of philosophical history as a whole, from its origin in ancient Greek Ionia to its latest manifestation as semiotic, the doctrine of signs.¹

Of course, I could be wrong in my belief that the philosophy establishment will not be able much longer to avoid refurnishing its house along semiotic lines — but I have gotten so used to being wrong,

¹ Walker Percy was once called "a thief of Peirce". Well, were it not for a thief of Deely, we could have gathered here today to discuss the situation in detail rather than in general, for the book upon which my remarks are based and, indirectly, those of my commentators, would not have been a matter of word of mouth but of accomplished fact. For, as many of you know, my index for the work was to have been completed before my arrival in Finland, and the work itself was to have been published while I was in Finland; but, 97% of my way through the index and thirteen days before my departure for Finland, the notebook computer containing the index was stolen from my office in Houston, and the lion's share of my time in Finland has been spent reconstituting that index from my 40% back-up base, a thankless task now thankfully done — but not in time to put the book in our hands before the century has turned on any accounting. Not only is there the dispute over whether the year 2000 ends the 20th century or begins the 21st, there is the further fact that the calendar as originally understood to have been based on the year of birth of Jesus Christ was off by at least four years, possibly by as many as seven. Whether we are in the 21st century or not as this symposium convenes, we assuredly will be when the *Four Ages of Understanding* is finally published by the University of Toronto Press a few months hence!

especially in prophecies, that the prospect hardly daunts me. And this time, wrong or not, I can tell you for sure from personal experience that, even though the situation has begun to change over the last two decades particularly, semiotics has been and still is at the margins of philosophy. Analytic philosophy in particular, after all the dominant paradigm in academic departments of philosophy throughout the English and Hispanic speaking worlds, has not been receptive to semiotics, though superficially you would have expected a proclaimed linguistic perspective in philosophy to be receptive of the semiotic point of view, particularly when you consider that the dominant paradigm for the study of signs in the 20th century, to wit, semiology, has emphasized the linguistic paradigm for studying even signs in general. But this superficial impression would be belied by the fact that the conception of language itself within analytic philosophy has been that of a self-contained whole, even as a system of signs; whereas semiotics has insisted from the first that linguistic semiosis, the action of signs within human language, is far from a self-contained universe of discourse. On the contrary, according to semiotics, the action of signs exceeds the boundaries set by the human use of signs, and the human use of signs would not be even possible except in constant collaboration with and on the basis of an action of signs at many levels surrounding linguistic usage and rendering it successful whenever and to whatever extent it does succeed (which of course is far from always).

Indeed, within semiotics, the open question is not whether the action of signs is broader than any construal of language, but rather how far the paradigm for the action of signs extends. There is general agreement by now that the action of signs, "semiosis", extends at least as far as awareness or cognition occurs, which includes the entire domain of animal sign usage, or "zoösemiosis". This already defeats the proposal Saussure embodied in the semiological model of sign which would have made of the study a variant of modern idealism, the philosophical doctrine (distinctive of modernity) according to which the mind knows only what the mind itself constitutes or makes. In the model of sign operative within semiotics, every sign consists in a relation connecting three terms, one of which performs the function of other-representation (and which Peirce calls accordingly the "representamen"²), a second of which performs the function of self-representation or objectification (which Peirce calls the "object signified", a somewhat redundant expression, as we will see), and the third term of which performs the function of relating within the signification itself — even when the representamen or sign-vehicle is a natural event, such a volcano belching smoke, as we will see — the representamen to the significate, thus completing the triad on the basis of which Peirce, following his Latin predecessors (so difficult for his late modern followers to acknowledge) from whom he learned the fact, identified the sign strictly so called with a

² A term habitually mispronounced, as my students know, by the Anglophile Peirceans as a consequence of their general ignorance of Latin. In 1992 I launched, by way of a footnote, my quixotic crusade to correct the pronunciation of contemporary Peirceans of the term "representamen", which I may as well continue here. Since it is a question of pronunciation, an audial form, and here my sole medium is scriptal, my foray remains no doubt doubly quixotic. Nonetheless, here goes (again). The term "representamen" is derived from the Latin for "to represent", or "a representation". In accordance with this etymology, the term should not be pronounced, as by the Anglophile Peirceans, "represént-a-men", but rather as "represen-tá-men

triadic relation. Thus Peirce, exactly as did the Latins before him, Poinso³ distinguished between signs *loosely so-called*, which are strictly representamens, and signs *strictly so-called*, which are the triadic relations themselves and as such, in contrast to each and every one of the three terms united within the sign and in contrast to the objects related within the web of sign relations.

The "open question" within semiotics today, thus, is not whether semiology is co-ordinate with or subaltern to semiotics, but only whether semiotics is broader even than zoosemiotics,⁴ and on this question two positions have emerged. There is the comparatively conservative position which would extend semiotics to the whole of living things, plants as well as animals. This extension was first formally proposed and argued in 1981 by Martin Krampen under the label "phytosemiotics", the study of an action of signs in the realm of vegetable life, a powerful case quickly ridiculed, but one which I, initially among the skeptics of the proposal, wound up early defending.⁵ The conservative faction in the matter of whether the action of signs, and hence the paradigm of semiotics, can be extended beyond the sphere of cognitive life has rallied around the label of *biosemiotics*.

The more radical faction (chief among which must be counted Peirce himself) does not quarrel with the inclusion of phytosemiotics under the umbrella of semiotics, but argues that even this extension leaves something out, namely, the physical universe at large which surrounds biological life and upon which all life depends. Heretofore the development of the physical universe as able to spawn and support life has been studied under the rubric of *evolution*. The radical faction in semiotics today argues that what is distinctive of the action of signs is the shaping of the past on the basis of future events, and on this accounting the action of signs (or "semiosis") can be discerned even in the rocks and among the stars — a veritable *physiosemosis*, theoretical justification and practical exploration of which marks the final frontier of semiotic inquiry, "final" only in the sense that there is nowhere left in the universe of finite being for semiosis to be looked for, it having now been found to occur (if the notion of physiosemosis be finally vindicated) wherever finite beings interact, and so to justify Peirce's proposal that the universe as a whole, even if it does not consist exclusively of signs, is yet everywhere perfused with signs.

In this debate between the conservative biosemioticians and the radical proponents of the correctness of Peirce's fundamental intuition of the permeation of finite being by semiosis the "philosophers of language" have been left in the dust, as it were, of the intellectual race which turns out to have carried philosophy itself beyond modernity and the paradigm of knowledge that modernity embodied as its very identity as a distinct philosophical epoch.

³ in first establishing the unity of the subject matter a doctrine of signs undertakes to investigate just a year before the Galileo debacle quite eclipsed the Latin epistemology that had been developing along semiotic lines over the last two and one half Latin centuries. See his *Tractatus de Signis* of 1632 (Poinso³ 1632a, in the References.)

⁴ So, for example, Professors Winfried Nöth and Santaella-Braga have called for an international colloquium on "The Semiotic Threshold from Nature to Culture" as the pressing question for semiotics as the new millennium opens.

⁵ Krampen 1991; Deely 1982b. See the reprintings in Deely, Williams, and Kruse 1986: 83–103.

Let us consider that, for without a clear idea of modernity in philosophy it is bootless to quarrel over the meaning or lack of meaning in the label *postmodernity*.

Demarcating Modernity within Philosophy

Fortunately, though it seems not to have occurred to many among our historians of philosophy, to identify modernity as a distinct epoch or age within the general history of philosophy is actually not that difficult, at least not when we look back with, so to speak, a semioticized eye. We need only to consider the defining assumption by which modernity can be sharply and accurately distinguished: on the side of its far boundary, from both Latinity and the mainstream schools of ancient Greek philosophy (setting aside only Skepticism, which is not as much a philosophical school as a determined attitude of mind which can be found in every epoch without exceptions); on the side of its near boundary, from semiotics itself as a quintessentially postmodern phenomenon of intellectual culture.

The far boundary first. The Greeks and the Latins were agreed that there is found within human experience a dimension within objects of experience that does not reduce to our experience of them, and that this dimension, labeled *ov* by the Greeks and *ens reale* by the Latins, gives a "hardcore" sense to the term "reality". To be sure, there were major disagreements among the Greeks and between the Greeks and Latins over the exact demarcation of this dimension, mainly (as between Plato and Aristotle) over whether the dimension of experience directly and essentially revealed by sense perception ought to be directly included in the inventory of "the real". But that there is a reality which the human mind does not make and which is what it is regardless of the opinions, beliefs, and feelings of humankind was a point of common agreement.

The decisive point uniting the mainstream Greek and Latin schools went one better than this. They further agreed that this dimension of reality in its proper constitution could be reached in human thought, that is to say, known, not perfectly, to be sure, but gradually, and more in more, an optimism they embodied in a maxim taken over by the Latins and everywhere agreed upon among themselves: *anima est quodammodo omnia*, "the human mind is able to become all things". Nor was there a single formula for this conviction, but many, such as the celebrated late medieval doctrine of the transcendental properties of being, that is to say, the properties consequent upon the fact that being and intelligibility are coextensive ("*ens et verum convertuntur*", etc.).

Now just this is what the early moderns began by denying. What is remarkable is that their initial denial of the coextensiveness of being and intelligibility was inconstant, a matter not explicitly visualized as such but merely embodied in a common assumption which they never came to examine, an assumption that came through its consequences to define modernity in its epistemological development as *philosophy* in contrast with that other distinctively modern development we now recognize as *science* in its own right. The fatal assumption blindly made concerned the identity or lack thereof of fundamental means at work in the shaping of sensation, on the one hand, and sense perception, on the other.

Debated among the Latins had been a basic distinction between *sensation* ("sentire") and sense *perception* ("phantasiari"). The debate concerned the formation and role of mental images (*conceptus* or *species expressae*) in consciousness: are they part and parcel of the awareness from its very beginnings in sense, or do they arise only as sensations are incorporated within and transformed into objects experienced as this or that (something to be sought, avoided, or safely ignored). Positions taken on this question separated the Thomists and Scotists from the Ockhamites and Nominalists generally as the Latin Age entered its final three centuries. According to the Thomists and Scotists, we ought to take note of the fact that only sometimes are objects given in experience which are not present at all in the physical surroundings, and even greater note of the fact that even objects present in the immediate physical surroundings are not "given" in just the way that they are experienced as being. It is not "in itself" that the cry of a wolf is attractive or repulsive, but only according as I am a sheep or a fellow wolf hearing that howl. So perception needs to be distinguished from sensation as a stimulus which does, as distinct from one which does not, involve an element of subjective interpretation to manifest it for "what it is". In sensation, subjectivity, the bodily type of the organism, *selects* what can be detected. But perception *interprets* what has been selected by *adding to it* objective relations of the mind's own devising. This element of subjective *interpretation* is precisely what the Latins called a "concept", the moderns a "mental image", or we today call a "psychological state". It is part and parcel of subjectivity, understood as what serves to separate any one cognitive organism from the rest of the universe.

Now however much Descartes and Locke disagreed over the role of sensation in the origins of distinctively human knowledge, one idea that never seems to have occurred to either of them was the possibility of tracing a level within human awareness which did not of itself depend upon subjective interpretive responses expressed in the form of "mental images" or ideas. Both began by embracing the assumption that representations formed in and by mental activity are the birth of awareness *tout court*. The further consequence that, if this be true, then there is no way out of objects in their mind-dependent aspects, no path that leads from objects into structures of *ens reale* as part thereof, no way to justify an apprehensive grasp of *ov* in its character as prejaacent to and independent of human belief, never fully and clearly dawned on either of them. To the extent that the consequence did dawn, both men devoted the whole of their considerable speculative genius to evading it, but in vain.

So far did the late medieval debate over the prescissive difference between sensation and sense perception slip from the modern consciousness that, by the time we reach Hume, not a trace of the

memory remains.⁶ "No man, who reflects," Hume assures us,⁷ "ever doubted, that the existences, which we consider, when we say, **this house** and **that tree**, are nothing but perceptions in the mind." Indeed, as early as 1710, a bare seventy-eight years after Poinot's demonstration of the semiotic character of sensation (in contrast to perception) as a naturally determined web of sign-relations linking physical environment with cognitive organism on the basis of the nature of the organism sensing, Berkeley had already been able to deem it:⁸

... 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?

And so the stage was set for the peak development of modernity, the mighty *Critiques* of Immanuel Kant, who, awakened by Hume from a dogmatic slumber, found it a scandal to philosophy and affront to reason that the existence of a world external to human representations had yet to be salvaged from the sea of doubt with which Descartes had managed to flood the modern landscape. But it did not occur to Kant to reconsider the collapse of the real distinction medievals had essayed between sensation prescissively considered as such and sense perception in its distinctive character as interpretive of the sensations selectively presented by the organs of exteroception but semiosically organized by the nature of the physical factors, environmental no less than organismic, at work in the interaction.⁹

Instead, with the modesty characteristic of modernity, Kant presented us rather with "the only possible proof" of an external world, by introducing not so much a distinction as a veritable *diremption* between the "thing-in-itself", real but unknowable, and the "phenomenon" constituted on the basis of representations made by the organism under the influence of these unknowable "things" and subsequently "formed" (in the human case, for zoösemiotics was no part of the Kantian purview) by the understanding

⁶ For a summary of the Latin debates and a clear statement of the reasons for rejecting the very view deemed by Hume as never doubted by anyone, see the *Tractatus de Signis*, Book III, Question 2, "Whether a Concept Is a Formal Sign", esp. pp. 309/47–312/6, with cross-references to the books commenting on the *De Anima*, namely, Poinot's *Philosophiae Naturalis Quarta Pars* of 1635, Q. 6, Art. 1, "Whether It Is Necessarily the Case That an Exterior Object Be Present Physically In Order To Be Sensed", 170a38–177a47, esp. 172b13–173a30, and Art. 4, "Whether the External Senses Form an Icon or Expressed Specifying Form In Order To Cognize", 192a18–198a16, esp. 195a5–46. Lengthy citations from these cross-referenced texts are incorporated in the critical apparatus of the 1985 Deely edition, q.v.

⁷ Hume 1748: 152 par. 9.

⁸ Berkeley 1710: *The Principles of Human Knowledge*, Part 1, Sect. 4.

⁹ The detailed semiotic analysis of sensation compared with the early modern approach undertaken in *New Beginnings* (Deely 1994: 77–88), is much expanded in Chaps. 10, 12, and 13 of *Four Ages of Understanding*.

itself so as to restore from the side of reason what Hume's analysis had shown to be lost forever on the side of "things", namely, those concepts underlying the necessity upon which scientific knowledge claims an objectivity that cannot be reduced to custom.

Of course, one had to be careful. Concepts themselves could get out of hand, might, in unguarded analytical moments, go on holiday. In that case, "noumena" would arise, empty concepts not proportioned to and based upon the "intuitive" representations of sense. To block this other door to the unknowable, Kant arrived at his famous maxim: "Gedanken ohne Inhalt sind leer, Anschauungen ohne Begriffe sind blind" — concepts without percepts are empty; percepts without concepts are blind.¹⁰ In this manner the enterprise characterized in later Greek and in Latin tradition as "metaphysics", to wit, a knowledge of *ens reale* that could in principle not be brought under the intuition of sense, was shut down — again, with characteristic modern modesty — in Kant's *Prolegomena to Any Future Metaphysics*.

Kant himself was so enamored of his "only possible proof" of a world beyond our representations of objects that he thought his leaving it intrinsically unknowable was a mere detail. Against idealism, he thought, he had vindicated realism as a *transcendental* idealism. For realism, he thought, the affirmation of an unknowable world independent of our representations was enough — never mind its knowability (or, rather, lack thereof). And just this "realism" is advanced today from within analytic philosophy, by Putnam and others, as a triumph of "scientific realism" over modern idealism, as if modernity before Kant were any different in principle from modernity after him. But where is the triumph? Triumph requires a distinction with a difference. Here we have only a distinction without a difference, for the quintessence of modern idealism was to make the passage from mind to nature a "no passage", and Kant does not change that situation at all. Semiotics does — but let me not get ahead of the story.

Let us deal, summarily if briefly, with the claim that any variant of an epistemological position consistent with Kantian philosophy of mind can legitimately lay claim to the title of "realism" in any but a hollow sense. Of course, modern philosophy from the start has embraced and embodied nominalism, as Peirce so trenchantly put it.¹¹ Under nominalism, all general terms are a *flatus vocis*, a "vocal fart".

¹⁰ Kant 1787: 75: "If the *receptivity* of our mind, its power of receiving representations in so far as it is in any wise affected, is to be entitled sensibility, then the mind's power of producing representations from itself, the *spontaneity* of knowledge, should be called the understanding. Our nature is so constituted that our *intuition* can never be other than sensible; that is, it contains only the mode in which we are affected by objects. The faculty, on the other hand, which enables us to *think* the object of sensible intuition is the understanding. To neither of these powers may a preference be given over the other. Without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuitions without concepts are blind. It is, therefore, just as necessary to make our concepts sensible, that is, to add the object to them in intuition, as to make our intuitions intelligible, that is, to bring them under concepts. These two powers or capacities cannot exchange their functions. The understanding can intuit nothing, the senses can think nothing. Only through their union can knowledge arise."

Whence it is ironic that Jakob von Uexküll, the great pioneer of *zoösemiosis*, took his original inspiration for the animal Umwelt, precisely a world without concepts, from the Kantian theory of mind; for surely in a wholly logical world the study of the purely perceptual intelligence of animals would have been rather the inspiration for the jettisoning of Kantianism in the philosophy of mind. History, as we have seen, has its ironies. Consult "Jakob von Uexküll" in Deely 1990: 119–124; and compare the discussion of the relation of understanding to sense intuition in Poincaré 1902a: Book II, Questions 1 and 2.

¹¹ Peirce, "Lessons from the History of Philosophy", 1903a: CP 1.19.

So why not "realism"? Why not, indeed. What's in a name? If what passes for "realism" in the late modern analytic philosophy is realism, "bark" is the noise trees make when the wind blows through their branches, or is the protective coat on dogs to shield them from the elements.

Consider carefully the beginning of modern philosophy, the break with the Latin Age as far as mainstream development would be at issue. As Galileo and Descartes experienced their situation, the new learning, "modern" philosophy, was to be a turning away from authority based on the interpretation of linguistic texts ("commentaries" on secular and religious authorities alike) to establish a new authority based on experimental results expressed in mathematical reasoning. At the beginning the two tried, as it were, to walk arm in arm, to stand shoulder to shoulder in a war to delegitimize the mentality and methods bizarrely canonized centuries after the fiasco of the 1616 condemnation of Copernicus in the person of "saint" Robert Cardinal Bellarmine, Rome's own Torquemada of early modern times.

But soon enough, in spite of themselves, the followers of these two found themselves parting ways. The line of Galileans, in moving physics to a new, idioscopic base,¹² was to lead to Newton, Einstein, and Mission Control in Houston placing men on the moon and ships bound for the far stars; the line of Cartesians, the line defined by the assumption shared between Locke and Descartes in the matter of the origins of knowledge in mental representation, was to lead rather to Hume and Kant and a reluctant conviction that the universe of reality preadjacent to and independent of the human mind is a universe forever unknowable "in itself", in its own being, in its physical subjectivity. Modern philosophy, in short, came to play Mr. Hyde to the Dr. Jekyll of modern science, which remained convinced in its practitioners that reality was just what was being revealed and brought more and more under the arts of human practical knowledge, exactly as the medieval Aquinas had expressed it: that the speculative understanding of the being of nature becomes by extension practical when human beings find the means to turn that understanding of nature to use.

Locke, of course, had tried to intervene in the Cartesian and modern development to give credit and credence to the role our senses play in feeding the growth of human understanding, but his intervention was without avail for deflecting the main trajectory of the mainstream modern development in philosophy as a kind of semiotic lapse. For, by accepting Descartes' reduction of objects to representations made by the mind, he foreclosed the only avenue by which the understanding moves back and forth in its grasp of objects between the realms of nature and culture, considering the last, as Vico

¹² Here I advert to Peirce's adoption (e.g., c.1902: CP 1.242, 1.278) of a strange but useful terminology from Jeremy Bentham (1748–1832, in a work of 1816), according to which Peirce divides science into *idioscopic* — what are ordinarily called the experimental sciences as requiring special experience to determine the sense of their propositions — and *cenoscopic* (also "coenoscopic"), what are dependent on observation only in that sense which is available to a mature human organism at any time. Thus Aristotelian physics is a coenoscopic science, and so was medieval metaphysics a coenoscopic science. But physics after Galileo, modern physics, is rather a definitely idioscopic science. The idioscopic sciences are scientific in the modern sense, but the coenoscopic or philosophical ones are rather doctrinal in the Latin sense which separates itself equally from theological dogma and scientific hypothesis to constitute the interpretive horizon of objectivity within which the relative autonomy of all three types of discourse can be verified and vindicated, both in general and as each admitting of a variety of further subdivisions.

said,¹³ as our own construction, even as the former comes somehow from the hand of God, as the moderns mainly assumed.

To be sure, the Latins had only themselves to blame for being consigned in turn to the flames of modernity. A decent interval had to pass before the outrages of the Latin authorities in their abuse of philosophy and theology¹⁴ could fade into the oblivion of consciousness of the living generations, and it was probably inevitable that, along with the healing of the wounds of that memory, the speculative achievements of the Latins in illuminating the nature of the workings of properly human understanding and the semiotic structure of the experience upon which it depends and feeds (as we now realize looking back) should also for a time suffer oblivion. But it is time to separate the chaff from the wheat, and to go back over the fields of Latin philosophy and civilization to see what might be retained or rehabilitated in the area of the philosophy of being, still, after all, the most ample of the interpretive horizons ever achieved within philosophy, and arguably the one most proper to the nature of understanding itself as the linguistic dimension of the human modeling system¹⁵ whereby alone a relative freedom from or transcendence over the perceptual horizon of sensation is achieved within our experience of objects not all of which reduce to our experience of them.

In this task, the work of Kant and his successors, mighty though it be in the modern line, is no help, but rather adds to the chaff in need of being separated. Like the followers of Saussure who tried to have it both ways — to revive the concept of sign and yet leave epistemological matters to stand where Kant left them — so the would-be "realists" of contemporary philosophy are missing what is at issue. Alike, these thinkers are late modern, even ultramodern, but definitively not postmodern. For postmodernity is what comes *after*¹⁶ idealism. A postmodern philosophy is neither realism in the sense that preceded modernity — "scholastic realism", as Peirce called it — nor the idealism that confines knowledge to the products of representation wholly fashioned by mind. Postmodernism in philosophy is precisely the adoption of a standpoint that, like pragmatism in contrast to pragmaticism,¹⁷ essentially incorporates but

¹³ Vico 1744: par. 331.

¹⁴ Think not only of the infamous condemnations of Copernicus in 1616, renewed and extended in the condemnation of Galileo in 1633, but of the burning alive in 1600 of Giordano Bruno, and of the more gruesome if, after a fashion, less cruel burning dead of the Archbishop Marco Antonio de Dominis on 21 December 1624. (Having died and been buried in September of that year, his body was exhumed for display during the trial of his spirit for "relapse into heresy". Convicted *in absentia*, his body was tied to a stake and set aflame. Still, he must have suffered less than Bruno on the similar occasion).

¹⁵ The distinction between language as modeling system (Innenwelt) adaptively and species-specifically human and language as linguistic communication ("language" in the vulgar sense), also species-specifically human but exaptively so and constitutive of anthroposemiosis in its difference from all pure forms of zoösemiosis, is foundational to the *Four Ages* and developed throughout it. But the insight itself I got from Sebeok, who develops sets it forth in several places, such as Sebeok 1987 among others. The distinction between exaptation and adaptation comes originally from Gould and Vrba 1982.

¹⁶ not what went before, even if something of what went before is retrieved in the process.

¹⁷ Here I refer to pp. 13–24 of the red booklet, "The Beginning of Postmodern Times or: Charles Sanders Peirce and the Recovery of *Signum*", prepared for The Metaphysical Club of Helsinki in November, and available through my University of Helsinki colleague, Erkki Kilpinen. I refer in particular to what Peirce called (1905: CP 5.428) the "complete rupture with nominalism" required by the semiotic roots and ambience which distinguishes pragmaticism from its surrogates in pragmatism.

does not reduce to vindication of a capacity of the human mind to discriminate within objects aspects that pertain to physical as well as to objective being and to distinguish these aspects — fallibly, to be sure — through critical control of objectification from yet other aspects that pertain to objective being alone and have no reality apart from objectivity, and aspects that, while pertaining to both orders, yet as realities belong *more* to objectivity than to physicality — like the rector of a university, or the pastor of a church, etc. That standpoint is the standpoint of semiotics, the standpoint of the being proper to signs as able to pass back and forth between nature and culture in establishing experience and feeding understanding wherein and whereby symbols grow.

Like the land surveyor who can quite well, thank you, distinguish in the public realm and not just in the privacy of his own mind between the cliffs of Dover and the legal boundary of Britain as between what is physical as well as objective and what is only objective, and without having to deny that geologists have some genuine grasp of the intrinsic structure, the very subjectivity objectified, of the composition of Dover's cliffs, so the semiotician is able to distinguish between those sign relations one of whose arms extends to roots that antecede human experience (the case of so-called natural signs, such as smoke bringing awareness of fire) and sign relations whose arms embrace only the human world of conventions and culture (the case of so-called conventional signs, such as flags bringing awareness of national states). Neither *ens reale* nor *ens rationis*, mind-independent nor mind-dependent being, are excluded from the purview of semiotics as it comes to terms with objectivity, the fallible condition of the human knower.

What distinguishes semiotics from the philosophies that preceded modernity is to include *ens reale* without being exclusively ordered to or preoccupied with that order of being. It is not a mere revival, recovery of, or return to *realism*. Yet neither, in embracing *ens rationis* under its rubric of the action of signs establishing an objective world of experience does it exclude *ens reale* as "unknowable". Thing-in-itself and unknowable are impossible notions in the action of signs, exactly as Hegel — that semiotician manqué of the modern evening — said in exposing for all to see the severed nerve of scientific inquiry left by the scalpel of the Kantian *Critiques*.¹⁸ Hegel was an abortive attempt at establishing a postmodern perspective, yet remains a harbinger of what was to come, an owl of wisdom who flew toward evening. Yet it could not be, that prospective postmodern future of philosophy, in the Kantian line; for the Kantian line drew precisely and rather the boundary of modernity itself in matters epistemological, that is to say, in all that concerned philosophy in becoming aware of its difference (originally not recognized) from the enterprise of modern science.

¹⁸ Kantian commentators such as Schrader (1967: 188) are quite right in thinking that Kantian epistemology "cuts the nerve of philosophical inquiry"; but they are curiously reluctant to accept the full consequence of that realization, which ought to be the relegation of the "critical philosophy" in which modernity culminated to the museum for the history of discredited notions, along with the proofs that flying machines are impossible or that the human body would fly apart if subjected to speeds above sixty miles per hour.

"Like the captives of Philippi", Stevenson said of Jekyll's transformation into Hyde,¹⁹ "that which stood within ran forth." We may agree completely with Arthur Collins²⁰ that "Kant's thinking needs no modernization and has immediate application to our own philosophical problems". But the reason for this situation is just the opposite of what Collins would have us think. Collins thinks²¹ that since "Kant's radical subjectivism is not a commitment to the mental status of objects of apprehension", this is enough to move his work beyond idealism *tout court*, to make of his work a veritable "basic anti-idealistic philosophy".

Let Collins stand representative for that valiant band of contemporary thinkers who would vindicate Kant as a "realist", a "scientific realist", an "analytic realist", as is recently wont to be said, as if the adjective "scientific" (such are the powers of nominalism) somehow magically vindicated an epistemology irreducibly modern in erecting a "no passage" barricade between phenomena based on representations of mind and things antecedent to and independent of those representations. Watch the tragic if heroic charge of philosophy's light brigade in realism's long struggle against psychological variants on modern idealism.

Here is the argument. Both Descartes and Locke identified the objects of immediate experience with ideas as subjective mental states. Kant, to the contrary, separates the objects of immediate experience from the mental states of subjectivity and gives them a relational, necessary structure as truly objective and "public", in the restricted sense of being opposed to the subjective mental states on the basis of which they exist suprasubjectively as objects. This warrants concluding that Kant's thinking can be "liberated from idealistic interpretation".

Here is why the argument fails. The contrast Collins draws between the subjectivism of Descartes and Locke, on the one side, and the objectivism of Kant, on the other side, is accurately drawn as far as Collins draws it. But the contrast in this particular is not enough to efface the deeper idealist bond. For the 'essence of idealism' is not that "the things we immediately apprehend in experience are realities that exist in our own minds" as mental states thereof, *pace* Collins (p. xiv); but that whatever we apprehend *in all that we apprehend of it* is a product, whether directly (as "ideas" in the mind) or indirectly (as "objects" terminating idea-based relations), of our mind's own working. That the things we immediately apprehend in all that we apprehend of them the mind itself makes (be they regarded à la Kant as objectively opposed to the subject, or be they regarded à la Descartes as subjective modifications of the one knowing), in contrast with whatever it be that exists or may exist independently of those workings: that is the true essence of modern idealism.

¹⁹ Stevenson 1885/6: 65.

²⁰ Collins 1999: 14.

²¹ *Ibid.* p. xiv.

Poinsot neatly skewered this central point early²² in what were to prove the formative years of the classical mainstream development, only to be ignored on the point by his Cartesian contemporaries.²³ With idealism's central tenet so understood, no liberation of Kantian thought is possible — as a matter of principle. Kant's philosophy needs no modernization because it is quintessentially modern, root and branch. If the implications of Kant's thought are unacceptable in the framework of postmodernity, that is precisely because of their thoroughly modern character. Poinsot was an evening star in the night of Latin philosophy. But his stand on these matters make him as well a morning star for postmodernity as Peirce brought its dawn. Even Frege might have approved, had he been so lucky as to have his logical universe invaded by that semiotic light of the postmodern dawn.

Why the Doctrine of Signs Is Not Modern

With Peirce, in recovering from the Latins the general notion of sign, and in advancing that notion both by naming distinctively its third term and by shifting the focus from the being to the action of signs (so that it is well understood that in that spiral of semiosis we call experience representamen, significate, and interpretant are constantly changing places as abductions give way to deductions and deductions to retroductions provenating yet further abductions in a semiosis that *would be* infinite did not death intervene to curtail the process in the individual case), what we were handed was precisely a new set of categories. This "new list", *like* the categories of Aristotle purported to contain modes of being as able to exist independently of mind and able to be known precisely in that dimension of their being, *but unlike* Aristotle's were not restricted to that order of prospective existence. *Like* Kant's categories the new list purported to reveal the input of mind into objectivity, *but unlike* Kant's were not restricted to the mind-dependent dimension of what is consequently known. In short, by revealing how mind-independent and mind-dependent being *interweave* in the constitution of experience as a semiotic web of relations whose nodes, reticles, or interstices precisely present to us an objective world both natural and cultural in its provenance and knowability, the new list of categories carries us forward beyond modernity and not simply back to some older viewpoint ("realism") adequately presaged in both ancient Greek and medieval Latin thought.

In short, semiotics proves for philosophy neither a question of premodern (though it draws on ancient discussion of relation as much as on medieval discussion of sign) nor modern, but precisely postmodern in its positive essence. For semiotics enables us to see clearly what, for philosophy, modernity consisted in, and why modernity proves wanting when it comes to the analysis of science, language, and

²² Poinsot, *Tractatus de Signis*, 1632a: 312/3–6.

²³ Thus the theme of my book, *New Beginnings. Early Modern Philosophy and Postmodern Thought*, was precisely to survey the speculative horizon of Latin thought in the lifetime of Descartes in order to see what, if anything, of enduring interest might have been overlooked in the inventory made by the classical early moderns, i.e., the thinkers of the time who successfully fed into the mainstream of what would become modern philosophy down to the present day.

knowledge — to matters epistemological generally. For all thought is in signs, and signs are sustained by their distinctive action, which is exhibited in but cannot be confined to language, as semiology and late modern analytic thought (after the "linguistic turn") beguiled their followers into believing.

Semiotics Is More than Peirce

I pointed out that, in separating itself from Latin tradition, modern philosophy at first made an ill-fated attempt to ally itself with the project of modern science, which I have personified as Dr. Jekyll, only to learn, belatedly and reluctantly, and in spite of itself, that it harbored and belonged to another persona entirely, the pathological persona of Mr. Hyde. The sophisticates of modern philosophy at first were content to snicker at the naivete of those who thought science could reveal something of the way things are in themselves. Later in modernity, as the prestige of science waxed and that of the prestidigitators of "the problem of the external world" waned, the philosophers sought nominalistically and vainly to recover an importance, as it were, by borrowing the adjective "scientific" to clothe the nakedness of their attempt to steal the term "realism" without relinquishing their irredentistly idealist tenets.

I have said that Peirce was the first to embody the truly new spirit of what alone could constitute "postmodernism" in philosophy as anything more than a hollow term of fashion bandied about with sound and fury signifying nothing. But Peirce was not alone in rending the phenomenal veil of late modernity. He was alone in being of full consciousness a semiotician, a traveler on the way of signs fully in contrast to the way of ideas. But he was not alone in being a traveler on the new way of signs. There were others along that path, pioneers who saw, to be sure, neither as deeply into the underbrush as Peirce nor as clearly the requirements of the new way, but who trod it blindly yet surely, advancing in their own manners the postmodern enterprise for those who would come after them and could benefit by their work. Sebeok has called such workers *cryptosemioticians*,²⁴ and has even identified among them a *primus inter pares*, the German biologist of Estonian birth and upbringing, Jakob von Uexküll (1864–1944).²⁵

It was my privilege, while teaching here at Helsinki University, to give some lectures in Estonia at Tartu University, but before that to visit, thanks to Kalevi Kull, the very house on the Baltic shore where von Uexküll wrote his celebrated *Bedeutungslehre*, wherein he introduced for postmodernity to savor what would prove to be one of its central concepts: the Umwelt, the objective world in contrast to the subjective universe of psychological states, on the one hand (the *Innenwelt*), and the physical universe of things-in-themselves, on the other hand.

From the Baltic shore which lay beneath the window of the house in which von Uexküll wrote, I carry in my coat pocket a stone I fished from beneath the shore waters. This stone, thus, carries a twofold story. There is the natural one a geologist might verify. Yes, this is indeed a stone from the Baltic region.

²⁴ Sebeok 1976: x.

²⁵ See Sebeok 1977, the discussion in Deely 1990: 119ff., and the series of sessions on "Neglected Figures in the History of Semiotic Inquiry" in the Semiotic Society of America Annual Proceedings Volumes, esp. after 1983. In this regard, the pioneering work of A. Russell (1981–99) on Collingwood bears particular mention.

And a second story which forever eludes the geologist, the story that this stone comes from within the Umwelt wherein von Uexküll brought to light the structure of experience shared by all the animals, which differentiates them as such from the plants, and which is true of human animals as well. Both stories are true (or false). It is the best starting point to explain the human use of signs in its uniqueness, better even than the New List of Categories handed us by Peirce, even if it eventually leads to them and, as it were, semiotically presupposes them. The two stories associated with my stone as their vehicle well symbolize the dual structure of the Umwelt as an interweaving of relations which reduce on one side to mind-dependent being, and on another side to mind-independent being, but which only together constitute this stone as an item of the Lebenswelt of semiotics today, and of our role as participants in its development within a nascently postmodern intellectual culture.

For I know of no better way to demonstrate how decisively semiotics today revives the old Latin epistemological debates concerning prescissive differences between sensation and perception and between perception and understanding (or language) that went into the formation of the original coalescence of semiotic consciousness than to tell the story of the establishment of the term Umwelt as a technical term of contemporary semiotics at the outset of the 21st century AD, the first full century of the postmodern era in philosophy.

Umwelt, an apparently German term, has become in fact a technical term within semiotics, and is also destined (such is my guess) to become a term of general use in philosophy and intellectual culture. If this guess is correct, then the term is too important to be left to scholars, etymologically inclined ones in particular. Still less is it enough to rely on existing German-English dictionaries to render the term, for the notion of Umwelt as it has come to be established in the usage proper to semiotics as the doctrine (in contrast to "science" or "theory") of signs admits of no full predecessor, least of all one dependent on the thoroughly modern, even "ultra-modern", epistemological paradigm developed in work of Kant, so much admired by Jakob von Uexküll. For semiotics has its own epistemological paradigm, albeit underdeveloped, namely, that proper to the sign; and for the sign, as Poinot early intimated,²⁶ the perspective proper to realism in philosophy is only a little less inadequate than the perspective proper to idealism in the modern sense. For the sign performs its task at the crossroads of nature and culture. And though it marks paths variously deep into both realms, the sign itself in its proper being is native to neither realm, always "mixed" in its ontogeny — at least as it comes to be a reflexive instrument within anthroposemiosis, where alone we first and initially grasp it as such.

The semiotic usage of the term Umwelt, then (I eschew placing it in quotation marks, for, as I have tried to insist, it is not a "foreign" word, but a term indigenous to the developing doctrine of signs), began with Thomas A. Sebeok's reading of the work of Jakob von Uexküll.²⁷ Von Uexküll himself (1864–

²⁶ Poinot, *Tractatus de Signis* 1632a: 118/6–9.

²⁷ See J. von Uexküll 1899–1940, esp. 1920, 1934, and 1940; also T. von Uexküll 1981, 1982. I have not here documented the historical sources upon which Jakob von Uexküll drew, but only those works within which the concept of Umwelt as Sebeok took it up for semiotics were introduced. Beyond this, I have restricted my references to those very few

1944), as we remarked above, was a "cryptosemiotician" rather than a semiotician proper. He did not see himself from within the perspective of semiotics. He thought of himself rather in terms of research in biological science, early ethology, some might put it. It took a semiotician, Sebeok in particular, as it happened, to see that von Uexküll's work, in its central application of the expression "Umwelt" (here let it be for a moment a "German" term, and hence "foreign"), concerned "biological foundations that lie at the very epicenter of the study of both communication and signification in the human animal", and every other animal, for that matter.

For the Umwelt belongs first of all to zoösemiotics, and to anthroposemiotics only from there. In other words, the Umwelt is first of all, even within semiotics, a vehicle for expressing especially the role of biological heritage in the use and function of signs, rather than for expressing what is species-specifically human in the use and function of signs. Now the philosopher who best understood the limiting functions of psycho-biological constitution upon knowledge was Immanuel Kant. So it is not wholly surprising that von Uexküll saw himself indebted philosophically to Kant above all in his creative research within biology.

What von Uexküll uniquely realized was that the physical environment, in whatever sense it may be said to be the "same" for all organisms (we are speaking, of course, of the environment on earth, though much of what we say could be applied, *mutatis mutandis*, to biospheres on other planets should such eventually be found), is not the world in which any given species as such actually lives out its life. No. Each biological life-form, by reason of its distinctive bodily constitution (its "biological heritage", as we may say), is suited only to certain parts and aspects of the vast physical universe. And when this "suitedness to" takes the bodily form of cognitive organs, such as are our own senses, or the often quite different sensory modalities discovered in other lifeforms, then those aspects and only those aspects of the physical environment which are proportioned to those modalities become "objectified", that is to say, made present not merely physically but cognitively as well.

What needs to be stressed, then, is the limited and partial aspect of the environment of which the organism becomes aware in sensation. When I look out over a rich meadow on a beautiful day, I see what might be loosely described as "an infinite variety of colors". That will do for the poet or even the practical man, but the careful thinker will realize that such expressions are but shorthand for our limitations: we see not all colors possible, but only those that, under given conditions of light and shade,

works directly quoted or cited in the course of my remarks; for my aim here is not etymology or scholarly illustration in the full sense, but simply and directly to explicate and influence the *usage itself* of the term Umwelt within semiotics as a contribution to the establishment, little by little, of an epistemological paradigm "home grown" from reflection directly on the being and action proper to signs as the fundamental and universal vehicles by which experience grows and on which knowledge within experience depends. For this is the line of intellectual development most promising for the foreseeable future of semiotics, at least if semiotics provides, as Locke obscurely prophesied, a "new sort of Logick and Critick" — to wit, a definitive breaking out of and moving beyond the confinement of modern philosophy that resulted from its adoption (up to and including Kant and his progeny) of an epistemological paradigm which precludes that very intersection of nature with culture which semiotics takes as its distinctive "point de départ".

fall within the range of our type of eye. Nor is "our type of eye" the only type of eye. That same meadow will appear variegated quite differently to the eye of a bee, a beetle, or a dragonfly, however much we may suppose an underlying common "physical" being which is "the same" no matter who or what species of individual happens to be beholding the meadow. A rose by any other name may still be a rose. But what a rose is will not be the same to a bee and to a human suitor.

But that is only the starting point in the construction of an *Umwelt*. For an *Umwelt* is not merely the aspects of the environment accessed in sensation. Far more is it the manner in which those aspects are networked together as and to constitute "objects of experience". No doubt there are relations among items of the physical environment that have no dependency upon the awareness of beings in that environment. No doubt too that, given the type and condition of my eye, what colors will appear to me when I look in a certain direction will not depend upon my evaluation of anything that is there. If we prescind (in Peirce's usage) sensation as such within our perceptions of the world, it is quite evident that our bodily constitution filters and restricts, but does not by itself determine, what we will become aware of in sensation. If my eyes are normal and a traditionally equipped classroom is lighted, I cannot fail to see the black rectangle against the lighter background that I will interpret as a blackboard affixed to a wall. But what my eyes objectify and what my mind makes of that vision remain as distinct as sensation as such in contrast to perception. Perception it is that transforms sensations into objects experienced, like dark rectangles against lighter surfaces "seen" to be blackboards on walls.

The bee unfortunate enough to fly into the classroom will not see a blackboard. The beetle will likewise fail to apprehend what is so obvious to me, such as the purpose of the blackboard, or the student desks. What objects will the bee or the beetle, or the dragonfly, for that matter, encounter in this same classroom?

That is the question (or type of question) which guided the *Umwelt-Forschung* pioneered by Jakob von Uexküll. Von Uexküll uniquely saw that the difference between objects of experience and elements of sensation is determined primarily not by anything in the physical environment as such but by the *relation* or, rather, network and set of relations, that obtains between whatever may be "in fact" present physically in the surroundings and the cognitive constitution of the biological organism interacting with those surroundings here and now. Nor are those relations primarily of the type that antecede and hold independently of any such interaction. To the contrary. The relations in question are not mainly between the organism and what is sensed (those limited and partial aspects of the physical surroundings which are proportioned to and activative of the limited range of this or that sensory channel in combination with however many other cognitive channels the organism in question is biologically endowed with). No. The relations in question concern above all how the limited and partial sensory aspects of the physical environment are connected among themselves so as to constitute *objects of experience*, and this constitution depends above all on the constitution of the organism doing the sensing. For it is the interests of that organism, not the "independent" nature of the source of the sensory stimuli, that is at

issue in the perception as such that the organism finally acts upon and uses to orientate itself within the environment for the purposes of its life and well-being.

In other words, the organism does not simply respond to or act in terms of what it senses as sensed, but rather in terms of what it *makes* of that sensation, what it perceives to be sensed, rightly or wrongly. The female wolf responds to the male's howl differently than does the sheep, regardless of gender. Thus, whereas sensation preselected and taken as such actively filters but passively receives incoming stimuli, perception by contrast actively structures sensation into things to be sought, things to be avoided, and things that don't matter one way or the other. Yet what constitutes a pattern of stimuli as desirable and to be sought or menacing and to be avoided depends less on the stimuli than upon the biological constitution of the organism receiving the stimuli. Thus, the pattern of stimuli, in perception as contrasted to sensation as such, is actively woven, not passively received. Between and among sensory elements of stimulation, the organism itself weaves a network of subsequent relations which obtain only in the perceiving, not prior to and independent of it. It is the pattern of this network of relations within perception, not any prior pattern within sensation alone, that determines and constitutes the objects of experience so far as they are distributed into the categories of desirable (+), undesirable (-), and neutral, or safely ignored (Ø). Perception does no more.

In this way, each species constructs and lives within *its own* lifeworld. The whole process is executed by means of signs, but the perceiving organism does not think of the matter in that way. It simply uses signs, as Maritain best put it,²⁸ without realizing for a moment that there are signs. For whenever one element of experience makes present something besides itself, be that other "real" or not (for example, the danger perceived only through an erroneous amplification of the stimuli of sense), the element in question is functioning as a vehicle of signification. This is why Sebeok so aptly speaks of experience as "a semiotic web", that is to say, a web woven of sign relations, at whose nodes alone stand the objects of experience as experienced, whatever be their further status as "physical" or "real" independently of the experience within which they are given.

So it is clear that experience, for any organism, does not simply consist of anything that is "there" prior to and independently of the experience, but only of "what is there" within and dependently upon the experience. So that however many or few relations within the experience may *also* obtain independently of the experience, these relationships have *meaning* only insofar as and as they are incorporated with that larger network of relations constituting perception in contrast to (while inclusive of) sensation, upon whose pattern the appearance of objects as such depends. And this larger network involves relations which would not obtain but for the biological constitution of the perceiving organism acting as interpretant even of what is given in sensation along with, indeed, *within*, the perception of objects as objects.

²⁸ Maritain 1976.

Now there is a great difference between an object and a thing, however confusedly the two notions are made to play in popular culture. For while the notion of thing is the notion of what is what it is regardless of whether it be known or not, the notion of object is hardly that. An object, to be an object, requires a relation to a knower, in and through which relation the object as apprehended exists as terminus. A sign warning of "bridge out" may be a lie, but the thing in question, even in such a case, is no less objective than in the case where the sign warns of a "true situation".

So we see plainly that while nothing precludes an object from *also* being a thing, nothing necessitates that a given object *also* be a thing. And a thing that is one kind of object for one kind of organism (a wolf, say) may be quite a different kind of object for another kind of organism (such as a sheep), and for a third kind of organism may be not an object at all;²⁹ even without getting into the question of mistakes organisms make about what kind of object a thing is or is not,³⁰ mistakes which may cost life or limb, or which may in the end "make no practical difference".

To say that an object may or may not be a thing and to say that a thing may or may not be an object sound like simply inverse sayings, but they are not. For to say that a thing may or may not be an object is merely to say that any given element in the order of what exists independently of finite knowledge ("things") may or may not *be known*, whereas the inverse saying that an object may or may not be a thing is to say that *what is not known is not an object*, or, equivalently, to say that *whatever is known is an object*. And since whatever exists as an object does so only within that network of relations (what Sebeok characterized as "a semiotic web" and von Uexküll called an "Umwelt") indifferently from nature and from mind (yet according to a mixture or pattern wherein those relations within and by cognition itself tend to predominate in the presenting of an object *as* this or that), we see at once that "what an Umwelt is" amounts to a *species-specific objective world*, with elements of the physical environment made part of a larger, "meaningful" whole or "lifeworld" wherein the individual members of a given species live and move and have their being *as* members of *that* species rather than some other.

We see then how different and richer is the concept of Umwelt than the subalternate concept of "environmental niche". The concept of environmental niche simply identifies that part of the environment as physical upon which a given biological form mainly depends in deriving the physical aspects of its sustenance. The concept of Umwelt, by contrast, shows us how a given "environmental niche" is merely the physical part of a larger, objective, not purely physical, whole which is, as it were, fully comprehensible only from the perspective of the particular lifeform whose world it is, whose "environment" is meaningful in the specific ways that it is thanks only to an irreducible combination of

²⁹ In an earlier version of these Umwelt remarks circulated in Tartu, Vahir Puik, "a humble student of geography" at the university there "who is interested in semiotics", pointed out to me that I had unwittingly, in effect, reversed my own usage of "object" and "thing" in writing: "And an object that is one kind of thing for one kind of organism (a wolf, say) may be quite a different kind of thing for another kind of organism (such as a sheep)." The wording here reflects Mr. Puik's perceptive reading.

³⁰ Or, in the distinctive case of anthroposemiosis, what kind of thing an object is or is not! Again with thanks to Mr. Puik.

relations many of which have no being apart from the lifeworld and all of which contribute to the contrast between the physical environment as neutral or common respecting all organisms, on the one hand, and parts of that same physical environment interpreted and incorporated within a meaningful sphere of existence shared by all the members of a species, on the other hand. Only things which are objects make up part of these species-specific worlds, but within these worlds are many objects which also are not things apart from the worlds.

Von Uexküll compared each Umwelt to an invisible bubble within which each species lives. The bubble is invisible precisely because it consists of relations, since all relations as such, in contrast to things which are related, are invisible. The objective meaning of each world and each part within each world depends less on physical being than it does on how the relations constituting the Umwelt intersect. The difference between objects and things makes mistakes possible, but it is also what makes for the possibility of meaning in life, and different meanings in different lives.

There is yet another way of putting this matter, one which brings more immediately to the fore the dominance of semiotics as the perspective proper to the problematic traditionally called "epistemological". Relations among things always directly presuppose physical existence; but for relations among objects as such, physical existence is presupposed only indirectly. To hit a tree with my car I have to have a car and there has to be a tree. But to discourse about my car hitting a tree I need neither a car nor a real tree. The reason for this anomaly traces back to a little noticed yet fundamental point for epistemology: the status of objects as objects presupposes directly the action of signs, whereas the status of things as things does not (although I would argue that even the status of things presupposes the action of signs indirectly, as a "physiosemiosis"³¹). In Peirce's terms, of course, this is but to say that things belong to the category of secondness, while objects involve always thirdness. But we need not deviate into a technical discussion of these semiotic categories in order to make the point that relations among things always suppose two existents, whereas relations among objects suppose only one existent necessarily, namely, the interpreting organism. For even when the sign vehicle is a physical mark, sound or movement external to the organism, that which it signifies need not be physical, when the organism is mistaken, for example, or thinking of a state of affairs that is possible ("this hotel robbed") but not yet actual. As when a beaver sets out to build its dam. So we realize that what we have heretofore called objects, and what are yet commonly confused with things, in fact are, as a matter of principle and in every case, significates. To say "object" and to say "object signified" is to say exactly the same thing. The two-word expression merely makes explicit what the one-word expression implies and — all too often — serves to quite effectively conceal from the one using the expression.

To preclude this concealment, and all the philosophical errors attendant upon the failure systematically to distinguish objects from things, we need only to realize that signs are what every object as such immediately presupposes. Without signs there are no objects. For signs are those very irreducible

³¹ See Deely 1997, 1998.

relationships that comprise the semiotic web, and the semiotic web is precisely that network of suprasubjective relationships which constitute objects as such as publically accessible elements of the Umwelt shared by every member of each biological species.

In Poinot's time (the late 16th and early 17th centuries), the distinction between objects and things and the status of objects as signifieds was explained in terms of the difference between physical relations, which in principle link two subjects (or are "intersubjective", connecting two or more elements physically existing), and sign relations, which in principle link minimally three elements of which one at least (namely, the object signified), need not exist physically at all, or not in the way that it is represented as existing physically. Later on, in the early 20th century, Peirce would succeed in expressing this situation by a terse formula, or maxim: sign relations are irreducibly triadic, whereas physical relations as such are only dyadic.

We see then how truly Sebeok characterized the species-specific objective worlds which von Uexküll labeled *Umwelten* as concerning "biological foundations that lie at the very epicenter of the study of both communication and signification in the human animal", and, as I said, every other animal, for that matter. I think it is not too much to say that, insofar as there is any one single concept that is central to the study of zoösemiotics, that would be the concept of Umwelt, the invisible bubble or species-specific objective world within which every biological organism that is an animal dwells.

But the concept has one shortcoming, is, we might say, as a biological concept, inadequate in one particular to explaining the human use of signs. For when it comes to the human being, it is true but not enough to say that we live in a bubble wholly determined by our biological constitution. True, our body, no less than the body of a snail, alligator, bee, or armadillo, determines the range and type of physical environmental aspects that we can directly objectify; and our perception, so far as it depends upon sensation, is quite bound by those limits, just as is the perception of a dog, dolphin, or gorilla. But the human modeling system, the *Innenwelt* underlying and correlate with our Umwelt, is, strangely, not wholly tied to our biology. The first effectively to notice this anomaly in the context of semiotics was again Sebeok.³² When we are born, or, indeed, when our genotype is fixed at fertilization in the zygote from which we develop, what we can see or sense in any direct modality is established and determined, just as is the case with any animal life form. But what language we will speak or what we will say in that language is far from so fixed and determined. Sebeok was the first effectively to point out that failure to grasp the implications of this fact result largely if not entirely from the widespread and long-standing confusion, in learned circles no less than in popular culture, between *language*, which is a matter of an *Innenwelt* or modeling system that is not wholly tied to biological constitution, and *communication*, which is a universal phenomenon that in and of itself has nothing whatever to do with language.

Thus zoösemiotics studies the communication systems of animals, both those that are species-specific to each animal form and those that overlap two or more forms, including communicative modalities

³² E.g., Sebeok 1984, 1986.

shared between human animals and other animal species. But language is not first of all a communication system. Language is first of all a way of modeling the world according to possibilities envisioned as alternative to what is given in sensation or experienced in perception. When such a modeling system is exapted for the purpose of communicating to another something modeled, the attempt succeeds, if at all, only when the other to whom one attempts to communicate such a *praeter-biological* content is a conspecific (that is, only when the prospective receiver likewise has an *Innenwelt* which is not wholly tied *omni ex parte* to biological constitution); and the result of the communication (when and to the extent it succeeds) is the establishment precisely of a *linguistic code*, which will correlate with but in no way reduce to elements accessible through one or another sensory modality of the organism. The intersubjective establishment of such a code, then, is the establishment of a new, species-specific channel of communication, to wit, *linguistic communication*, commonly miscalled and thoroughly confused with language itself. That is why, for a communication to be linguistic, it matters not a whit whether it be spoken, written, or gestured: all that matters is the type of *Innenwelt* underlying the communication which makes immediate, non-reductive interpretation of the linguistic code possible in the first place. That is why the "meaningful world" in which the human animal lives involves postlinguistic structures³³ accessible in what is proper to them only by a linguistic animal, whereas all the other animals, even when they employ symbolic means of communication (as is in fact fairly common), are restricted to the order of prelinguistic, sense-perceptible object domains (including postlinguistic structures only in their sense-perceptible aspects of embodiment).

So the concept of *Umwelt* applies fully to the human animal insofar as humans are animals, but the invisible bubble within which the individual human being lives as a member of a biological species is permeable to things in a way that the *Umwelt* of no animal without language is: for the human *Umwelt* is not restricted to a semiotic web based only on biology. In ancient and medieval philosophy this species-specifically distinctive openness or "permeability" of the human lifeworld was expressed in a maxim: *anima est quodammodo omnia*, "the human mind in a certain way is all things", namely, in the extent of its possible knowledge. In fact, that is the reason for the very possibility of semiotics (as distinct from semiosis) in the first place. For *if*, as we saw, signs consist essentially in triadic relations which, as relations, are always suprasubjective and only sometimes intersubjective as well (insofar as semiotic relations incorporate physical relations within objectivity, as always happens), but are never themselves directly sensible even when all three of the terms they happen to unite in a signification may be sensible, *then* only an animal whose awareness is not wholly tied to biological constitution will be able to realize that there are signs, in contrast to merely using them, as Maritain pointed out as the case with nonlinguistic animals.

So we arrive at a new definition of the human being, no longer the "rational animal", as in ancient Greek and medieval Latin philosophy, nor even the "thinking thing" of modern philosophy, but rather

³³ Deely 1980.

the "semiotic animal", the animal that not only uses signs but knows that there are signs, because as linguistic the human animal is capable of modeling that fundamental reality of all experience which never appears to the eyes and ears or any other biological channel of sense: relations as such in contrast to the objects or things that are related; relations as such as the fundamental reality which makes possible the experience of objects in the first place; relations as such which make possible the difference between objects and things; relations as such which, in their peculiar being and irreducibly triadic form, are that which every object presupposes; relations, those irreducible strands of the semiotic web which constitute the Umwelt or objective world in its contrast with and difference from the physical environment as such prior and in some measure common to every life form.

In other words, the human Umwelt is so modified from within by the exaptation of language to communicate that, without ceasing to be an Umwelt, it becomes yet so different from an Umwelt based on an Innenwelt without language that some further term to characterize it becomes imperative. I have proposed that the term *Lebenswelt* should be adopted to express an Umwelt which is species-specifically human, retaining Umwelt to express the generic idea of an objective world which is in every case species-specific consequent upon biological constitution. Whether this suggestion will catch on remains to be seen, and I have rested my case mainly on the three hundred and eleven paragraphs constituting my account titled *The Human Use of Signs*. But while the question of whether my argument on this crucial point will prevail by becoming an accepted usage remains open, the question of whether Sebeok's argument is sound in asserting that the concept of Umwelt is central to semiotics may be considered decisively closed in the affirmative. The success of Sebeok's argument by itself justifies his ranking of Jakob von Uexküll as "one of the greatest cryptosemioticians of this period" in which we have been privileged to see semiotics pass from the status of abstract proposal to successful intellectual movement, perhaps the most international and important intellectual movement since the taking root of science in the modern sense in the 17th century, an antidote to the overspecialization of modern knowledge, and a postmodern revival of the tradition of learning in "liberal arts" which equip the mind to move above and between disciplines in the transcendence proper to the human spirit where it seeks to become "quodammodo omnia".

How Semiotics Restores Tradition to Philosophy

Well, we have seen the decisive break semiotics makes with modernity in replacing the epistemological paradigm of the way of ideas with an epistemological paradigm proper to itself, one which marks out and constitutes a postmodern trail, a new beginning as radical in its own way as was the break of modern philosophy with the Latin Age in the 17th century and, before that, of the Latin Age with ancient Greek thought through the fifth century AD introduction of the concept of sign as a general mode of being respecting which natural and conventional signs alike are species, specific types or varieties.

But to appreciate the full import of this for our understanding of philosophy we need to take into account the single most astonishing fact that semiotic research of the 20th century has uncovered, namely,

the fact unearthed by Umberto Eco and his team of intellectual archeologists at the University of Bologna that, before the work of Augustine at the very end of the 4th century AD, we find no trace of a general notion of sign in Greek philosophy. The fact is hard to believe. I remember the incredulity I felt on first hearing this report,³⁴ and the years it took realize the impact such an anomaly must have on our reading of philosophy in its historical development. What Eco and his colleagues claimed to demonstrate was that, despite our fondness in philosophy for tracing Greek origins of main concepts, in the case of the sign, the key concept of a general mode of being superior to the division between nature and culture was owing to the Greeks not at all but to one ignorant of Greek, Augustine of Hippo. After Augustine, there will be both natural and cultural signs; but before Augustine, the Greeks had thought of the sign mainly, almost exclusively, in natural terms. The σημεῖον of the Greeks was not at all what we would today call "sign in general" but rather "natural sign in particular". The notion of sign in general was, precisely, *signum*, Augustine's Latin term proposed just as the 4th century closed to express the idea that the universe of human experience is perfused with signs, not only through our contact with the natural being of our physical surroundings in the signs of health and weather, but also through our contact with our conspecifics in discourse and trade, even in our contact with the divine through sacrament and scripture.

There was no turning back. The Latin Age was born in the perspective of the sign as the pervasive instrument of understanding. It would take almost twelve centuries for the consequences of that fact to be worked through to their speculative ground in the *Treatise of Signs* of John Poinset, contemporary of Galileo and Descartes, to be sure, but a man as decisively of the Latin past as Galileo and Descartes were Jekyll and Hyde to the modern future. For human beings are animals first of all, and animals first of all experience the universe of nature not as things but as objects to be sought and avoided or ignored. Animals make use of signs without knowing that there are signs, let alone without realizing that signs are in the objective world of experience an instrument as universal as is motion in the world of physical being.³⁵

In their absorption in the world of objects, the sign appeared to the Latins, even to Augustine in making his general proposal, not in its pure and proper being as a triadic relation (indifferent, like all relations, to the surrounding circumstances which make it physically real as well as objectively so, or only objective; and invisible, like all relations, to the eye through which perception sees only related things), but rather in its sensible manifestation as a connection between objects experienced whereby the one, on being perceived, manifests also another besides itself, perhaps even one absent from the immediate perceptual surroundings. That objects in order to be experienced at all presuppose signs already at work in the activity of understanding never occurred to the Latins, though that was a clear

³⁴ In researching the *Four Ages*, I noted that even Markus (1972:66), who establishes the fact in question quite independently of Eco and his group, found it hard to believe that none before Augustine thought of language as a system of signs.

³⁵ The most interesting formulation of this point by far among contemporary writers is to be found in Jacques Maritain 1937-1938: 1; 1938: 299; 1956: 59; 1957: 86. Comprehensive discussion in Deely 1986a.

consequence (clear, that is, after the manner of all consequences, which is to say, once it is *further realized*) of the realization that the being proper to signs is not at all that of something sensible as such but that of relation as irreducible to whatever aspects of subjectivity the relation happens to depend upon for its existence in these or those concrete circumstances.

The privilege of the Latins was first to propose and then to vindicate the general notion of signs. After that came modernity, a new way of approaching the understanding of objects as such still prior to the further realization that objects presuppose signs, and indeed, developed in a manner contrary to what such a realization would require.³⁶ Finally came the dawn of postmodernity, the recovery of *signum* in the work of the first American philosopher worthy to be named in the company of Aristotle and Aquinas, Charles Sanders "Santiago" Peirce. He was among the last of the moderns, to be sure; but, more importantly, he was the first of the postmoderns, because he was the first after Descartes (with the partial exception of Hegel) to show and to thematize the inclusion within the world of objects something also of the physical being of nature in its own right, just as it is in its pre-jacency to and insouciant independence of systems of human belief and speculation.

The Latins had uncovered and identified the being proper to signs as the base of our experience of objects. But action follows upon being. The next step perforce would be to thematize the action of signs precisely in order to understand in detail what the being proper to sign entails. And this is precisely the step Peirce took after first learning most, though not all, of what the Latins had discovered of the sign in its proper being. He even gave to this action a name, *semiosis*, as the subject matter whose study results in a distinctive form of philosophical and even scientific knowledge, *semiotics*, just as biology is a body of knowledge that develops out of the study of living things, and geology out of the study of the earth. The Latins too had demonstrated the necessity of three terms involved in every sign, but their living tradition ended before any had thought to name that third term. This too fell to Peirce, who called it the *interpretant*, and who further saw (without quite ever succeeding to explain³⁷) that the interpretant need not involve finite consciousness.

The bare proposal for semiotics that Locke had contradicted his own *Essay* by making,³⁸ of course, came near the beginning of modern thought; but it had no influence on the modern development. Nor did it embody any awareness of the Latin past in this matter, save perhaps in the bare echo in the English expression "doctrine of signs", which Locke used to translate his nouveau Greek term (malformed) *σημωτικῇ*, of the Latin *doctrina signorum* actually used by Poinset in explaining the content and plan of his *Treatise on Signs*. Had the proposal been influential in its time, we would not now be speaking

³⁶ See the details of the case as presented in Deely 1994a, along with the comments of Santaella-Braga 1994.

³⁷ See "The Grand Vision" (Deely 1989). It is the problem we discussed in our opening pages, the "open question" of how far semiosis reaches into the being of things.

³⁸ Here I can only allude to Locke's coinage of what has proved to be, as it were, the "logically proper name" for the doctrine of signs in its postmodern incarnation. But I have discussed it many times and from many angles (Deely 1985, 1986, 1993, 1995a, 2001a), as well as in the *Four Ages*, Chap. 14.

of *postmodernity*, for the mainstream modern development of philosophy (as distinct from science³⁹) would have been aborted thereby, or itself transformed into what we now see emerging as semiotics. But the proposal was not influential; and Mr. Hyde had many years to live and to grow into the monstrosity of idealism, the doctrine that whatever the mind knows in whatever the mind knows of it the mind itself creates, a doctrine which the late modern philosopher Jacques Maritain, in exasperation, at last proposed⁴⁰ should be denied the very name of philosophy in favor of something like "ideosophy" instead.⁴¹

As early as Locke's proposal for semiotics, the achievement of the Latin Age in first proposing and finally explaining the being proper to sign as a general mode of being had already crossed the social line separating contemporary concerns from the cultural unconscious, that limbo for the achievements of previous generations of human animals which have slipped outside the focus of the consciousness of a yet living generation of human animals. So let me try to show how, in refocusing on the sign, postmodern thought has as part of its destiny to recover the whole of the Latin Age unified in an unexpected way by the theme of the sign, a theme which, we will see, reprises all the standard issues covered in the "standard presentation" of medieval philosophy from Augustine to Ockham heretofore, but reprises them as subordinate themes to that of the sign, which is the one theme which unifies the age as an organic whole, and so goes beyond the "standard coverage" by requiring us to take account of that series of thinkers after Ockham which link the *Treatise on Signs* of Poinot that culminates the semiotic line of Latin development as well to that series of thinkers before Ockham that begins with Augustine.

The Language of Semiotics

The Latin contribution to the heritage today of semiotics is massive — original, foundational, pervasive, yet at least temporarily, inconscient in the greater part of those intrigued with signs. The situation is hardly static, but it remains true that as we enter the last months of the second millennium (or first months of the third) of the common era, the Latin contribution to semiotics exists mainly as a current or layer within the cultural unconscious, yet one which little by little has begun to be brought into the light of conscious awareness beginning especially, as I have said, with the work of Umberto Eco for the world at large; but also, within the Hispanic world, by the publications of Mauricio Beuchot. The contemporary development of semiotics, we are beginning to see, owes far more to the Latin Age than it does either to modern or even to ancient times, which is not at all to deny the singular importance of the ancient Greek medical heritage so forcefully brought out first by Sebeok.⁴² Nevertheless, the Latin Age has in our cultural heritage in the matter of the sign a historical weight (here, I can no more than suggest) that

³⁹ I have published preliminary statements on the distinction between philosophy as *doctrina* and modern science as *scientia* in Deely 1977, 1978, 1982a, 1986b; but the full justification of this distinction as a thesis concerning the history of philosophy as a whole over its development before, during, and after the modern period is to be found in the *Four Ages*.

⁴⁰ Maritain 1966.

⁴¹ But, except for the astonishing writings on this point of Peter Redpath (1997, 1997a, 1998), Maritain's suggestion so far has fallen on deaf ears, I think for the reason given in the *Four Ages*, pp. 511–12n1, concluding paragraph.

⁴² See esp. Sebeok 1975, 1984, 1984c, and 1996.

perhaps manifests its inertia in the improbable reversal of fortunes of the two terms under which contemporary study of signs has organized itself, namely, "semiology" (first and everywhere in the first six or seven decades of the 20th century), then "semiotics" (here and there in the 60s, and now become dominant over the waning band of those who, more and more wistfully, label themselves "semiologists"⁴³). There is after all a weight of language, an unconscious capacity of words subtly to shade the tint of even the most present experience with the perspective and understanding of generations past, as if the ghosts of those generations were whispering memories into the mind's ear as each new generation learns to speak.

Nor are my dates of demarcation, the end of the 4th and the beginning of the 17th century, arbitrary. For if we look at the Latin history in philosophy in the light of sign as a theme, we discover something astonishing: instead of a chaotic age going off in many directions, one only gradually achieving a center of gravity in the so-called "high medieval" period and afterward dissolving into nominalism and the exuberance of the Renaissance recovery of Greek classics, we find a distinctive age of philosophy organically unified from beginning to end above all by its first speculative initiative made in philosophy without precedent or anticipation in the world of ancient Greek philosophy. The sign, it turns out, was not only the original Latin initiative in philosophy, as Eco discovered, but, what seems never to have occurred to Eco's circle, the sign provides the theme that shows a true unity of that age in moving from the simple positing of the fundamental notion to its complex justification as no *flatus vocis* but rather the nexus of human experience as transcending nature in the direction of mind and back again from mind in the direction of nature .

In speaking thus we take up a theme from a German philosopher who dominated the 20th century with his cryptic pronouncement that "Language is the house of Being".⁴⁴ For "language" here did not signify at all what, say, the everyday American or Italian refers to by the vocable "language". On the contrary, Heidegger meant something much more profound, what our American *paterfamilias*⁴⁵ Thomas Sebeok explains rather⁴⁶ as the product of our *Innenwelt* or "modeling system", that species-specifically human capacity which results in an *Umwelt*, an objective world, as we saw above, an arrangement of objects classified as desirable, contemptible, or beneath notice (+, -, 0) insofar as that typically animal arrangement of experience is further permeated and transformed by the human awareness of an interpretive horizon for these objects as specifically consisting of more than their relation to the one perceiving them, and thus carrying a history which imports into the individual consciousness, for the most part unknowingly but nonetheless in fact, a structure of awareness and experience which links the

⁴³ See the survey of usage in Sebeok 1971; then further "Rectificando los terminos 'semiótica' y 'semiología'", in Deely 1996: 300–317; and "Ferdinand de Saussure and Semiotics" in Tasca 1995: 75–85.

⁴⁴ Heidegger 1947.

⁴⁵ Yet hardly an everyday American, he, but rather, as I have explained elsewhere (in Tasca ed. 1995: 17–26), and as many in this room independently and easily understand, a putative Martian and (what comes to the same), like Vilmos Voigt, who will be our Visiting Professor of Semiotics here in the Spring 2001 semester, a Hungarian.

⁴⁶ Sebeok 1984b and elsewhere.

individual with the understanding of the world worked out and adhered to by forebears long dead whose codifications of understanding are embodied in the words we speak, those linguistic vessels which, all but entirely, preceded our individual births and will continue at play in linguistic communication long after we have died.

So the "being" which language houses is above all a historical reality, the preservation in human community of the affective and cognitive links which have their roots in times long past but which define through their presence in the psychology of living individuals the contours of what we call a natural language community, with all the vagueness and inevitable overlappings that result in that notion as a consequence of the fact that the human modeling system, alone among the animal modeling systems on this planet, is not restricted in its communicative elements and terms to sign-vehicles objectively accessible as such to sense perception.

It is from this *point d'appui* that I am here addressing, with an eye to our Latin past, the present development and immediate future of semiotics, in its bearing on philosophy in particular. For if language is, to speak in the accents properly Heidegger's own, a *seinsgeschichtliches Wesen*, an essence freighted with being, then it is surely there, indeed, in the vocable itself "semiotics" (something that Heidegger himself never considered, even as he was typically ignorant of almost every one of the late Latin thinkers who were key to the semiotic denouement of their age in philosophy), that our heritage lies at once concealed and manifestly present in its permeation of and influence over thinkers wherever the semiotic community has taken root in our nascent contemporary "global culture". Even moreso is this the case with the simple vocable "sign". So let us reflect on the Latin dimension of our heritage as it is carried within two simple English words: first "sign", and then "semiotics". What, even unconsciously, do these two simple expressions import into our present experience of the world from the predominantly Latin phase of the European development?

From Latin Signum to English Sign

The ontological weight of Latin history at play in the shaping of our contemporary use of "sign" is conveyed through a derivation directly and immediately Latin: *signum*. There is a conjecture that this Latin term carries over a Sanskrit sense of "to cling to or adhere", which is probable, but not probable enough to pursue for present purposes. For, so far as it is a question of the concept and destiny of sign that furnishes the foundations for what we have come to call semiotics, namely, the body of living knowledge developed out of the thematic observation and analysis of the action unique and proper to signs (both as such and in their various kinds), we are dealing with a coinage that as a matter of fact does not go beyond a rather late stage of the Latin language itself, it being a posit, as has been discovered, put into play just three years before the end of the fourth century of the Christian or "common" (if you prefer) era.

Well, by coincidence, this was the very time when the move of the capital of Roman Empire from Rome to the Byzantine region had just been consolidated. This was the time when the peoples who would

form Europe were adopting the original Latin tongue of the old empire, while the rulers themselves were abandoning Latin in favor of the Greek language. This was the time, in short, when we witness in hindsight the astonishing split of a single political entity, the Roman Empire, into two halves soon to share virtually no common linguistic tie.

It is common wisdom that the term "semiotics" comes from the root of the Greek word σημεῖον, standardly translated as "sign". As is all too often true of common wisdom, so in this case it forms a dangerous alliance with ignorance by concealing more than it reveals without any overt hint of what is hidden. The alliance is dangerous in this case because what the common wisdom conceals is of far greater import for any deep understanding of a European heritage in the matter of the study of signs than what it would lead the first-time comer to that study to believe. For the truth is, the astonishing truth, with which semiotic reflection needs most to begin, is that there is no general concept of sign to be found in Greek philosophy, and the term standardly mistranslated to conceal that fact is σημεῖον, a word which means, in Greek, not at all "sign" in any general sense but only very specific forms of sign, particularly ones associated with divination, both in the invidious sense of prophetic and religious divination and in the more positive scientific sense of prognostications in matters of medicine and meteorology.⁴⁷ Σημεῖα, in other words, are from outside the human realm, are from nature, either in the manifestations of the gods or in the manifestations of the physical surroundings. Within the human realm are found not signs but symbols (σύμβολα) and, what is after all but a subclass of symbols, names (ονοματᾶ), the elements in general of linguistic communication.

All this will change after Augustine (354–430AD). Too busy in his youth for one set of reasons to learn the Greek language in use all around him, too busy in later years for another set of reasons to learn the Greek language visibly losing ground in the Western regions of Roman empire but yet dominating the realm of theological and religious discussion, and, in any event, disinclined by temperament to study Greek in any season,⁴⁸ Augustine it was who, in an ignorant bliss, began to speak of sign in general, sign in the sense of a general notion to which cultural as well as natural phenomena alike relate as instances or "species". Not knowing Greek, he was ignorant of the originality of his notion. That he was proposing a speculative novelty never crossed his mind, and, his principal readers being similarly ignorant, the fact is not known to have occurred to any one in his large and growing audience. What was obvious to the Latins was the intuitive clarity of the notion and its organizing power. Look around you. What do you see? Nothing or almost nothing at all that does not further suggest something besides itself, something that almost normally is not itself part of the physical surroundings immediately given when you "look around". There is a tombstone, my childhood friend's grave; there is a tree, the one planted for the occasion of the burial; there is a pot of flowers now dead, placed here a month ago to honor the memory of this friend. And so on.

⁴⁷ Manetti 1993.

⁴⁸ Augustine 397: i, 14.

Nothing at all is all that it appears. Everything is surrounded by the mists of significations which carry the mind in many directions, all according to knowledge, interest, and level of awareness brought to bear at any given moment when we happen to "take a look around". Of course all these perceptions involve signs, the gravestone no less than the cloud. And the fact that the one comes from human artifice and the other from nature makes no difference to the fact that both alike signify, that both alike, in Augustine's words, "praeter species quas ingerit sensibus aliquid aliud facit in cognitionem venire" ("over and above the sense impressions, make something besides themselves come into awareness").

So little were Augustine and the Latins after him aware of the novelty of their general notion of sign, indeed, that the novelty would appear never to have come to light before researchers of our own time turned the tools and light of scholarship to uncovering the historical origins of semiotics. To my knowledge at least, as I have several times indicated, it was the team of researchers who have worked the fields of ancient thought from a semiotic point of view under the guidance and tutelage of the celebrated Italian scholar and Bologna professor, our friend Umberto Eco, who first brought to light⁴⁹ and subsequently established more fully⁵⁰ Augustine's incognizant originality in this particular.⁵¹ Whatever be or not be the Sanskrit overtones, the English word "sign" comes directly and immediately from the root of the Latin term *signum*, and this term with the familiar general sense it has for semiotics, of providing a subject matter that merits investigation into natural and cultural phenomena alike, was a novelty in the maturity of Augustine.

So there is the earliest and second most definitive⁵² landmark in the Latin heritage of postmodern semiotics: the very notion of sign in the general sense was introduced at the dawn of the 5th century AD to draw attention to and mark the fact that *all* our objects of sense perception are experienced within a web of relations that much later thinkers — Thomas Sebeok in particular, developing a suggestion in the work of Jakob von Uexküll — aptly designate a *semiotic web*. The very word "sign" is itself a sign self-reflexively of the not only of the Latin but indeed of the European heritage in this area, the very concrete

⁴⁹ See esp. Eco, Lambertini, Marmo, and Tabarroni 1986; and the the editorial note on the provenance of this text, *ibid.* p. xix.

⁵⁰ Manetti 1993.

⁵¹ The discovery entered our semiotic literature of today as an anomaly, a curious fact that, like Albert the Great's fossils in the 1260s, puzzled the mind without suggesting any grand hypotheses. Ironically, when an abduction was finally made and formally presented full-scale in the work of Manetti just cited, the guess missed and, for want of a familiarity with the key texts of later Latin times, as we will have occasion to mention, proffered the wild hypothesis that it was the Latins themselves, and not the late modern structuralists and deconstructionists heir to Saussure, who began the development that culminated in the semiological thesis that there are only conventional signs. See the essays referred to in note 3, p. 2, above; but especially Chapter 16 in the *Four Ages of Understanding*. Nonetheless, the asymmetry of ancient Greek and modern national language philosophy on this point is worthy of note: as the ancients recognized only *natural* signs, so the moderns came in the end to recognize only *conventional* signs. The Latins, by contrast, like Peircean postmoderns, are distinguished by the theoretical means of recognizing both.

⁵² The most definitive landmark, of course, would by rights be the theoretical demonstration that the general notion of sign was a *warranted* notion. But "rights" in these matters are, from the standpoint of popular culture, matters of some amusement, when they are recognized at all; were it otherwise, Poinset would have been from the start, and not merely as a matter of future tenancy, far better known among semioticians than Augustine.

fact that "Europe" was the gradual creation of the heirs and interlopers to the original Western lands of the Roman Empire who took over also its original language. This *mélanges* of peoples inherited and transformed the original language of that Empire through an indigenous philosophical development that began roughly in the 4th century and continued thereafter until the 17th century, the time of the decisive break of modernity from the Latin Age both in the establishment of science in the modern sense (as an intellectual enterprise distinct no less from philosophy than from theology and religious thought) and in the establishment of the developing national languages in place of Latin as the principal vehicle henceforward for the sustenance of European intellectual culture.

For since semiotics is the body of knowledge that develops through the study of the action of signs, as biology is the systematic knowledge that is developed from the study of behavior of living things, etc., semiotics may be said to have actually arisen only at that moment when the general notion of sign as a unified object of possible investigation was introduced. The mere fact that, prior to such a conception, there were signs at work throughout the living world (and, both beyond and before that, perhaps, in the wide world of physical nature itself, as Peirce first proposed⁵³ and as has more recently been analyzed under the rubric of "physiosemosis"⁵⁴), does not mean that there was semiotics in the universe prior to the Latin Age — except, of course, as a possibility in the sense of having a place "marked out in advance", as Saussure so well put it.⁵⁵ Semiosis, Peirce's name for the action of signs taken from — or, rather, forged on the basis of — remarks in the Epicurean papyrus written by Philodemus in the last century preceding the common era,⁵⁶ precedes semiotics, just as living things precede biology and rocks precede geology. But biology as a science presupposes that the world of living things be conceived as a thematically unified subject of possible systematic inquiry. Similarly, a doctrine of signs presupposes that the action of signs be conceived as a thematically unified subject matter of possible investigations. And the first to give us a notion of sign which accomplishes this presupposed feat was Augustine.

Of course there were investigations of various kinds based on the action of signs long before Augustine. Indeed, we now realize that every investigation is based on the action of signs, every investigation has a semiotic component or dimension that can be brought out and highlighted theoretically. But that is not the point. Just as any predator stalking its prey relies on knowledge acquired from a study of signs, yet not every predator is a semiotician; so every semiotician owes his or her profession to the fact that someone, in fact, Augustine of Hippo, first introduced into intellectual culture the notion of sign in general, under which notion the particular investigations we call semiotics are brought together objectively in the conception of a unified subject matter of possible investigation. There are not only signs as tokens; there is also sign as type, the type defining and distinguishing those investigations properly called "semiotic" in contrast to "chemical", "astronomical", "biological", and so forth, even though we can also

⁵³ His "grand vision", I would call it (Deely 1989).

⁵⁴ A term coined in Deely 1990 and developed in a series of essays after that, most recently 1997 and 1998.

⁵⁵ Saussure 1916: 16.

⁵⁶ Philodemus i.54–40BC. See Fisch 1978: 40–41 for discussion of Peirce's derivation and coinage.

say, from the standpoint of semiotic consciousness, that every other subject matter physical or cultural necessarily involves and develops by semiotic means.

Sign itself, the general notion or type (the "general mode of being", Peirce liked to say) of which all particular signs are instances or tokens, then, is the first and foundational element of the semiotic heritage. For it is that presupposed notion which first makes the development of a doctrine of signs possible in the first place. It marks, as we may say, the initial awakening of semiotic consciousness; and it occurs more or less at the very beginning of the Latin Age in the history both of the formations that lead to modern Europe and of that part of intellectual culture traditionally called philosophy. Semiotic consciousness owes its initial awakening, if not its name, to the introduction of the general notion of sign in the work of Augustine.⁵⁷

But what after Augustine? Does the Latin Age contribute nothing more to semiotic consciousness than its foundational and organizing notion of sign? As a matter of fact, Augustine's original and constitutive contribution in this regard risked in advance the disaster of *nominalism*, that infection of speculative thought which blinds the mind to the dependence in understanding of everything the senses yield upon general modes of being insensible as such, yet as independent or more independent of human whim as anything on the order of rocks or stars. For it is not enough to *propose* the general notion of sign as a mode of being. The proposal needs to be theoretically justified as well. *How is it possible* for there to be such a thing as a general mode of being that transcends the division of objective being into what exists prior to and independently of cognition and what exists posterior to and dependently upon cognition or mind?

This question never occurs to Augustine. For him, as for the next seven centuries of Latin thinkers, the general idea of sign seems so intuitively valid that we find it employed throughout the theological and philosophical writings without the appearance of a second thought. Of course, the seven centuries in question are not exactly luminous with speculative developments within philosophy. In fact, they are precisely what first the renaissance humanists and many modern historians after them refer to derisively as "the dark ages", the centuries marked more by the collapse than by the rise of centers of serious learning. This was a function of the condition of civilization itself in the early indigenous Latin centuries. But by the time in the 11th and 12th centuries when we see the universities, that greatest of all the contributions to present civilization surviving from the politics of the Latin Age, begin to form at Paris and Bologna and then all across what will become Europe, spreading even to China by 1900, the "constantly alive, burning and inevitable problem"⁵⁸ Augustine has bequeathed to Latin posterity makes its way to the fore. *Signum*: general mode of being or empty nominalism, *flatus vocis*?

The burning question bursts into flame at least as early as the writings of Aquinas (1225–1274) and Roger Bacon (c.1214–1292). The first turn the controversy takes toward a generally theoretical

⁵⁷ See Augustine i.397–426 in particular.

⁵⁸ Beuchot 1986: 26.

development of Augustine's posit hanging in thin air (for what is to prevent the vocable *signum* from being a sound signifying nothing, like "phlogiston" or "aether" or "immutable crystalline spheres" any of the countless other words posited across the centuries which turn out to be names for confusions in thought that, when clarified, disappear) fastens not on the general notion itself but on the question of whether only a sensible object can function in the capacity of a sign, whether being a sensible material structure was rightly included in the general definition. For Augustine's posit had two aspects: the general notion of sign as verified in whatever makes present for awareness something besides itself, and a proposed definition that ties this functioning to impressions made upon sense.

It was over the formulation of Augustine's definition of sign that the problem first broke into open flames. Beginning with Aquinas⁵⁹ and Bacon,⁶⁰ then developing after them in the writings of Duns Scotus (c.1266–1308), William of Ockham (c.1285–1349), Pierre d'Ailly (1350–1420), Dominic Soto (1495–1569), Pedro da Fonseca (1528–1599), the Conimbricenses (1606, 1607), Francisco Araújo (1580–1664), and culminating in the work of John Poinot (1589–1644), this first aspect of the problem received an all but unanimous resolution among the Latins: not only sensible objects as sensible, but also those interpretive structures of the mind (called today "ideas and images" but in those times "species expressae") on the basis of which sensible objects are presented in experience as this or that kind of thing, fulfill the function essential to being a sign. A common terminology even evolved, after d'Ailly (or perhaps before, for this terminological point has not quite been pinned down as yet historically), to mark the point linguistically. Sensible objects as such which make present in cognition something besides themselves the Latins agreed to call "instrumental signs", while those interpretive structures of thought as such, those *psychological states of the knower*, as we would say, which serve to found the relations which make sensible objects present at their terminus as this or that kind of individual they called by contrast "formal signs".⁶¹

But this agreement on terminology proved to be but a verbal agreement, which is perhaps why it has proved to have little enduring power beyond the time of those who forged it. In fact, the comity among the differing Latin schools on this verbal point served to mask a much deeper disagreement that became apparent to the cognoscenti as soon as the question of Augustine's defining formula was realized to

⁵⁹ Especially with Aquinas, for even though he never focused thematically on sign as a question of systematic pursuit, his work is so vast, and problems central to the eventual formation of such a systematically pursued theme recur tangentially to issues he does systematically pursue, that he leaves a trail of tantalizing suggestions to be pursued over the entire *corpus* of his writings: c.1254–1256: the *Commentary on the Sentences of Peter Lombard*, Book IV, dist. 1, q. 1, quaestiunc. 2; c.1256–1259: the *Disputed Questions on Truth*, q. 4. art. 1 ad 7, q. 9. art. 4 ad 4 and ad 5; c.1269–1272: the *Questions at Random*, q. 4 art. 17; c.1266–1273/4: the *Summa theologiae* III, q. 60, art. 4 ad 1. Indeed just this trail is what Poinot will follow in bringing to publication 358 years after Aquinas' death the first systematic demonstration of a being common to all signs as such, and hence the first *demonstration* (in contrast to *posit*) of the existence of a unified subject matter for semiotic inquiry. It will be exactly 353 more years before this effort of Poinot will surface outside of the Latin language — such is the slow rhythm of semiotic development.

⁶⁰ See esp. Bacon c.1267.

⁶¹ The fullest historical discussion of this first phase of the later Latin development is presented in Meier-Oeser 1997: "Die Unterscheidung von *signum formale* - und *signum instrumentale*", pp. 238–251.

involve the more profound problem of the very being proper to signs, of the type manifested in the tokens — of the being, that is to say, enabling signs, any and every sign as such, to function as a sign in the first place.

Augustine's original proposal of a general definition may have been too narrow, as all came to agree, but at least it had the merit of applying to particular things. Now Ockham and his followers increasingly distinguished themselves by insisting that only particular things are real. Ideas of the mind may not be sensible characteristics of individuals, but they are subjective characteristics of individuals no less than is the color of one's skin or the shape of one's nose. *My* idea is as much a part of my subjectivity as is *my* shape or size or color. Hence the nominalists could distinguish formal and instrumental signs as respectively inaccessible and accessible to direct sense perception without admitting that there is any *type* or general mode of being verified equally in the differing tokens or instances of sign.⁶² For be it a sound or mark, an idea or a feeling, the former as "instrumental" no less than the latter as "formal" remains a *particular*, not a general, mode of being. The mind in knowing may make comparisons among objects of which it is aware, and from these comparisons relations do indeed result. But the relations themselves, the relations as such, do not precede the knowing: they are constituted by it. Prior to the knowing, prior to the comparison and independent of it, there remain only the particulars, the subjectivities: that is all.

The Scotists and the Thomists accepted the terminology for distinguishing between signs whose foundation was and signs whose foundation was not directly sense-perceptible (instrumental vs. formal signs, respectively), but they also insisted, against the nominalists, on a more fundamental point: when a particular object or an idea is said to be a "sign", what makes the appellation true is not the particularity of the feature in question but the fact that it serves to ground a relation to something other than itself. This relation, not the individual characteristic upon which the relation is based, they insisted, is what constitutes the being proper to the sign as such. Thus the Latin authors eschewing nominalism insisted

⁶² This second and decisive aspect of the late Latin development of semiotic consciousness has so far not been discussed in the literature, and Meier-Oeser, in his work splendid as far as it goes, appallingly misapprehends this aspect of the problem. I can refer the reader only to Chapters 8–10 of my forthcoming book, *Four Ages of Understanding* (see the "promissory note" in Deely 1996a), which traces the complete history of philosophy from Thales to Eco in terms of the bearing that history has on the current and prospective development of semiotics as the positive essence of what can only be called (in philosophy at least, where "modernity" is defined by the epistemological paradigm according to which the human mind is capable of knowing only the products of its own operations) a *postmodern* development. The opening of the new historical epoch, in fact, may be dated specifically to May 14, 1867, when Peirce presented his "New List of Categories". For the list in question contrasts both with Aristotle's original list of c.360BC, by including specifically the objective products of mind as well as the knowable elements of physical nature, and also with Kant's list of 1781, by including specifically objective, i.e., directly and immediately known, elements of physical nature as well as phenomena owing their whole being to the mind's own operations.

For the creation, in Peirce's "New List", of an "intersection of nature and culture" (Sebeok 1975a; cf. also Sebeok 1979), set the problematic of the sign squarely beyond the modern quarrels between idealism and realism, in conformity exactly with the terms originally set by John Poinset for beginning a systematic development of the doctrine of signs (1632a: 117/24ff.): "the sign in general ... includes equally the natural and the social sign", that is to say, "even the signs which are mental artifacts". And if there is anything which philosophy cannot account for and remain within the constraints of the Descartes-Locke equation of ideas with the objects of direct experience, it is the possibility of a knowledge of structures of the physical environment according to a being proper to them.

that not only was Augustine wrong to propose a definition tying signs to sense-perceptible objects as such, but that the *reason why* he was wrong was not merely that ideas as well as words and rocks serve as vehicles of signification. The reason is much more profound, namely, that the relations actually and properly constituting signs are always as such and in every case without exception knowable as such only to understanding in its distinction from the perception of sense — exactly what we assert today when we recognize that linguistic communication arises from a species-specifically distinct modeling system, and that it is this modeling system as such,⁶³ not the linguistic communication exapted from its distinctive function, that constitutes "language" in the species-specifically human root sense — a capacity more obscurely designated (from a semiotic point of view) "intellect" among the Latins and "understanding" among the later moderns.

Here, unnoticed by any currently established historian of philosophy, the theoretical divide between the nominalists and their Latin opponents widens to a chasm. For the nominalists, relations exist only as mind-dependent elements of awareness through and through, as comparisons made in thought by the mind itself. They exist wholly within and function as no more than a distinguishing part of subjectivity itself actively cognizing — subjectivity: that total complex of characteristics and functions whereby one individual in nature exists unto itself as distinct from the rest of the universe. For those opposing nominalists in the matter of resolving the "burning and inevitable problem" bequeathed from Augustine, relations are as much a part of nature as are individuals, and in fact are a part of nature apart from which individuals could not so much as exist as distinct individuals. For while indeed in the Latin notion of "substance" there is embodied the affirmation of natural individuals, beings existing "in themselves and not in another as in a subject of existence", the nominalist interpretation of that notion (the only interpretation, it would appear, familiar to the classical authors from whose works sprang the distinctively modern mainstream of philosophy) is completely at loggerheads with the notion as we find it in Aquinas and Scotus or their followers among the Latins, or as we find the notion of substance before them in the Greek texts of Aristotle.

For the opponents of nominalism among the Latins, substance itself is a relative notion; for the individual, "absolute" insofar as its being is one, is yet only relatively distinct from the surrounding universe. The individual maintains its actual existence as relatively distinct only through and on the basis of an unremitting series of *interactions* which provenate and sustain a network of actual relations, relations mind-independent and physical and essential to the continuance of subjectivity even though not themselves subjective, which link the individual to what it itself is not but upon which it depends even in being what it is. So we find distinguished subjectivity and intersubjectivity: substance, as a relative notion of what exists in itself dependently upon other things besides itself (*subjectivity*), distinguished from *intersubjectivity* or rather *suprasubjectivity*, pure relations as such which actually link the individual to whatever it is that the individual depends upon in its existence in whatever way without being that

⁶³ See esp. Sebeok 1987.

other thing. Intersubjectivity in this pure sense thus *characterizes* the individual but does *not reduce* to the subjectivity of the individual. Individual characteristics are thus both subjective and intersubjective, and the actual existence of the individual as relatively distinct from and within its physical surroundings depends upon *both* types of characteristics.

The nominalists denied that these intersubjective characteristics had any reality outside of thought, any reality over and above subjectivity itself. For over and above subjectivity, the being of *particulars*, some of which happen to include cognition as part of their particularity, there is nothing at all "in the nature of things". All relations, Ockham asserted, and all the nominalists after him agreed (including Hobbes, Locke, Berkeley, and Hume; Descartes, Spinoza, Leibniz and Kant⁶⁴), are constituted only in and by thought itself whenever and only insofar as the mind makes comparisons between objects and aspects of objects.

Comparisons the mind makes do indeed give rise to relations within thought, countered the later followers of Scotus and Aquinas. But what makes these relations unique is not the fact that thought forms them so much as the fact that they are suprasubjective without needing to be in fact intersubjective. Indeed, thought is able to form comparative relations only because the understanding has already recognized *in actu exercito* intersubjectivity as a feature of the reality of the physical world, the order of things in the experience of the physical aspects of our surroundings. On the basis of our experience of such features the mind can go on to make comparisons of its own. These further comparisons, like relations in nature, will be "between" objects as linking one to the other, but with this difference: relations between individuals in the physical environment cannot exist *except* as intersubjective, whereas relations fashioned by thought, always interobjective, yet may or may not be intersubjective in fact, inasmuch as one or the other term of such a relation either may not exist at all, or may not exist in the manner that thought presents it to exist. I may be mistaken about who my father is, even though there is no question that in fact I have a father. That is the whole and only difference between mind-dependent and mind-independent relations insofar as they are relations, but a difference that reveals a distinctive feature of pure relations as such that will prove crucial for understanding how signs are possible:⁶⁵ while every pure relation exists as such over and above whatever subjectivity the relation depends upon in order to actually exist here and now, only some relations are in fact *intersubjective*. Therefore the feature essential to and constitutive of the purely relative as such is not intersubjectivity in fact but *suprasubjectivity*.

⁶⁴ Such a spectrum of authors agreeing on so basic a point is worth documenting, and the first one to do so in a brief and systematic compass, I believe, was Weinberg 1965 — although Peirce himself, as early as 1898 (CP 4.1), to cite a specific mention of a point that runs throughout his writings, had full taken note that not only is every modern philosopher from Descartes to Hegel a nominalist, but further that "as soon as you have once mounted the vantage-ground of the logic of relatives ... you find that you command the whole citadel of nominalism, which must thereupon fall almost without another blow."

⁶⁵ Perhaps it is not to much to say that grasping the semiotic bearing of this point is what constitutes the uniqueness of Poinot's *Tractatus* of 1632.

If that is so, and every sign consists in a relation as such, then every sign as such serves to link an individual to something that is other than itself, *whether or not this other signified actually exists in any physical sense as a subjectivity in its own right*. The implications of this point are not only enormous, they are decisive for semiotics. The point enables us to see, in the first place, how signs can be used indifferently to lie, to blunder, or to express some truth: the situation depends upon factors wholly external to the sign relation as such, just as my being or not being an uncle is quite independent of anything I do. But perhaps the most interesting theoretical implication of this last point developed among the Latins, tentatively with the Conimbricenses and Araújo, definitively with Poinsett and, after him and independently, with Peirce, is the implication that the relations in which signs consist according to their proper being as signs differ from physical relations in nature in having of necessity (or "in principle") three terms united rather than only two. In other words, it suffices for intersubjective instances of relation to be dyadic, whereas the suprasubjective instantiations of relations *as signs* (which realize the indifference in the nature of relation to provenance from physical being as such) must always be triadic. A car can hit a tree only if there is a tree there to be hit; but a sign can warn a bridge is out whether or not the bridge is out, or, for that matter, whether or not there is even a bridge there at all where the sign "leads us to believe" there is a defective one!

Semiotic consciousness, thus, first arose in the time of Augustine, but its principal development as a theoretical theme did not occur until much later, beginning with Aquinas and Roger Bacon in the 13th century and continuing thereafter right down to the time of Galileo and Descartes, where it found its theoretical vindication in the work John Poinsett. This main period of theoretical development occurred in two phases, both of which have been identified only in the most recent times and both of which have only begun to be explored in depth.

The first stage occurs between Aquinas and Ockham, or perhaps rather d'Ailly, when it comes clearly to be recognized that the being proper to signs need not be directly perceptible to sense, a recognition that culminates in the linguistic marker of the "formal/instrumental sign" distinction. The second stage occurs between Soto and Poinsett, when it comes clearly to be recognized that the being proper to signs not only need not but *cannot* be directly perceived by sense, for the reason that this being is constituted not by any subjective characteristic as such upon which a relation happens to depend existentially (such as the shape of an object perceived or the contour of a sound heard) but by the very relation itself which, as suprasubjective — as over and above its sense-perceptible occasion of existing (its "foundation" in the Latin sense) — is never sense-perceptible and need not even be intersubjective. It follows from this that sign relations, that is to say, the relations in which the being proper to signs as such consists (or, simply, in which *signs* most formally and properly speaking consist), must also be triadic and never merely dyadic; and this remains true even when the sign happens to relate actually existing physical subjectivities, for actuality in that sense depends upon factors wholly extrinsic to the sign-relation as such.

It further follows that signs are never mere individual things but exist only insofar as individual beings are involved with things other than themselves, and this with "others" both actually existing and

only possibly existing or once having existed (as in the case of dead parents) or only thought mistakenly to exist or have existed. The sign, it turns out, is not merely an object linking another object in thought but that upon which every object depends in order to be in thought at all, whether truly or falsely. And all of this depends on the doctrine of relation which the Latins inherited from Aristotle's discussion of categories of physical being. But the Latins expanded upon Aristotle's terse text enormously,⁶⁶ especially under the pressure of seeking to come to terms with "the burning and inevitable problem" (or rather nest of problems) which Augustine, in his ignorance of Greek, had so casually handed them with his naive, innocent proposal of sign as a genus to which culture no less than nature contributes species.

In this way we find that, as it belongs to the cultural heritage of the species *anthropos*, semiotic consciousness is an originally and indigenously Latin development, first made possible thematically at the outset of the Latin Age by Augustine's naive posit, but first reduced systematically to its theoretical ground in the being proper to relation by John Poinot's *Treatise on Signs*, a work brought to print as the Latin Age is nearing its end, and thereafter lost for more than three centuries in the language that almost became its tomb.

How recent is this discovery of the crucial role of the Latin past and how far we have to go to achieve something like a general appreciation of that crucial role may be garnered obliquely from the fact that even as the 20th century ends distinguished figures in the nascent field of semiotics who name their ancestry appear routinely ignorant of more than half of the Latin names brought up in this discussion, including most glaringly that of John Poinot, who stands easily without peer in uncovering the foundations in being itself of the semiotic consciousness which Augustine may have introduced thematically but which proves on sufficient further investigation to be the consciousness most distinctive of the human animal. It is not as "rational" that the human being finds its distinctive flourishing nearly so much as it is as signifying. We may even go so far as to say that semiotics as an essentially postmodern development carries with it the implication of a new definition of the human being. Even as Descartes introduced modernity by replacing the ancient definition of human being as *animal rationale* with the modern formula, *res cogitans*, so the advent of semiotics at once transcends modernity in the direction of the past and surpasses it in the direction of a future in which the "thinking thing" becomes rather once again an animal, the *animal semeioticum*. I turn to my second terminological point, my second "essence freighted with being".

Where Is the Latin in the English Word "Semiotics"?

⁶⁶ This can be seen most readily in their subsumption of Aristotle's categorial relation, the *relatio praedicamentalis seu realis*, together with the thought-constituted relation, *relatio rationis*, under the more general rubric of *relatio secundum esse*, together with their setting of this general mode of being in contrast with the order of subjectivity *tout court* subsumed under the rubric of *relatio transcendentalis seu secundum dici*, which latter expression conveyed the requirement both for discourse and for physical existence that substances (subjectivities or "absolute" beings) be always in interactions and pure relations with their surroundings either to be or to be understood. See esp. the "Second Preamble" of Poinot's *Tractatus*.

Here I will not repeat even in substance the several times⁶⁷, inspired by the seminal essay of Romeo,⁶⁸ that I have explored in detail Locke's introduction of the vocable σημωτικῇ, an only apparently Greek word, misspelled at that, as it turns out, into the concluding English paragraphs (so brief is his final chapter⁶⁹) of his *Essay concerning Humane Understanding* of 1690, which propounds in its body an epistemological theory that is anything but hospitable to or compatible with this alternative development he concludes by suggesting⁷⁰ — namely, the "way of signs", as I think it should be called.

Let us cut to the chase, and reach our main conclusions.

We have seen that if we take the English word "sign" and ask where it comes from, the answer is that it comes from Augustine of Hippo, the first thinker of record to forge a general notion of sign as a genus (we might even say "genius") to which natural and cultural phenomena alike are species.

But "semiotics" as an English word is more problematic. Surely its derivation is Greek, as at least learned common sense can divine from its very alphabetic formation. But here common sense, as is usual with even with learned common wisdom, relies on a secret covenant with ignorance. What investigation of the matter shows is that the linguistic formation in question comes about from a kind of bastard Greek coinage actually made by the Englishman John Locke when he proposes Σημωτικῇ as a one-word equivalent of the English expression, "doctrine of signs" — itself an expression not merely redolent of but exactly translating, almost to a point of proving an exception to Hill's dictum on the non-existence of perfect synonyms, the older and well-established Latin formula central to the work of Poinsett and others: *doctrina signorum*. Locke's term may have come indirectly, as Romeo persuasively urges, from a Greek medical dictionary. Be that as it may, it remains that the term as it appears in Locke is malformed. By the applicable requirements of Greek grammar, it should have had an epsilon separating the mu from the iota, which it did not. Nor can this malformation be dismissed as a printer's error; for, in every subsequent edition of the *Essay* prepared by Locke prior to his being overtaken by the boundary of time and made a definitively *past* author, the original malformation is meticulously maintained.⁷¹

Now it is curious that "*semiotics*" is not a straight transliteration of Locke's Greek malformation. What is a straight transliteration of the Greek malformation Locke introduced, however, is the Latin term "*semiotica*", which no Latin author ever used. So the term, a Greek malformation in Locke's *Essay*, is in effect a neologism in Latin transliteration. But the term means in English "the doctrine of signs", according to the only definition Locke provided in his original introduction of and comment upon the would-be Greek term.

⁶⁷ Deely 1977, 1978, 1982, 1985, 1986, 1990a, 1993, 1994a: 109–143, 1994b.

⁶⁸ Romeo 1977.

⁶⁹ The whole of Locke's chapter from the original edition of his *Essay* is photographically reproduced in Deely 1994a: 112.

⁷⁰ I would refer the reader to the Allen–Deely exchange in *The American Journal of Semiotics* 11.3/4.

⁷¹ I have actually verified this through combined holdings of the Library of Congress and the libraries of the Smithsonian Institution, both in Washington, DC.

The reason that this detour through the nonexistent Latin transliteration of Locke's Greek malformation is interesting is because "semiotica" as Latin neologism would be a neuter plural name that could only be translated into English as "semiotics". Professional linguists have been careful to point out that there is in English a class of "-ics" words which do not conform to the usual rule that an English noun is made plural by adding an "s" to its ending.⁷² By this reckoning, "semiotics" is not the plural form of "semiotic". Nonetheless, "semiotics" is the direct English transliteration of the Latin "semiotica", which in turn is the direct transliteration of the Greek malformation Locke introduced into the closing chapter of his *Essay*, and *would be* a true English plural if taken from the Latin.

So a Latin, rather than a Greek, background proves etymologically decisive for sign and semiotics alike as contemporary notions, despite Locke's conscious choice of the Greek root (*sem-*) for the notion of "natural sign" (*semeion*) in his one-word summation or name (*semiotike*) for the doctrine of signs.

Of course, the Greek philosophical contribution to what would eventually take form in contemporary culture as an explicit attempt to develop the doctrine of signs can hardly be underestimated, particularly in Aristotle's doctrine of categories — for example, with his sharp development of the contrast between subjective being in the doctrine of substance (what Poinset clarified long-standing Latin usage by terming *transcendental relation*,⁷³ which is not really relation at all but subjective being itself viewed in terms of its existential and ontological dependencies upon the surroundings), and suprasubjective being in the doctrine of relation (which Poinset followed Aquinas in terming *ontological relation*⁷⁴). But it remains that it is first in the late 4th century Latin of Augustine that the general notion of sign appears, and that it is first in the early 17th century Latin of Poinset that this general notion is decisively fully vindicated as more than a nominalism. Contemporaneously, the Latin Age itself recedes into the shadows of times past as modern philosophers with their nominalistic doctrine of ideas as the objects of direct experience take control of European intellectual development in philosophy.

Peirce's Privileged Position

By the time Charles Peirce passed from the status of future, that is, not yet living, to the status of present contributor to philosophical discussion, the richness of the Latin notion of *signum*, its origin, development, and vindication over the 1200 or so years of the Latin Age had passed into oblivion, forgotten to all present contributors to the discussion of philosophy. Peirce in this matter, fortunately for us all, proved not to be a typical modern. He did not condemn the past of philosophy, in particular its Latin past.

⁷² "At least a part of the confusion which learners experience in handling the -ics words ... is caused by the fact that no dictionary makes clear that the final -s in these words, no matter what its origin, is not identical with the familiar plural morpheme of nouns which happens to be homonymous with it" (Hill 1948).

⁷³ Actually *relatio transcendentalis seu relatio secundum dici*, since in fact we know of no case where Poinset spoke or wrote a word of English.

⁷⁴ Again actually: *relatio secundum esse*.

He undertook instead to explore it.⁷⁵ And, though his exploration did not reach as far as the work of Poinot, they did bring him as far as Poinot's principal teachers and immediate predecessors in the matter of the doctrine of signs, Thomas Aquinas, Duns Scotus, and the Conimbricenses.

As a result, Peirce was able to recover the Latin notion of *signum* very nearly at the point where the Latins had left it, that is to say, at the point where it had been realized and definitively explained that *signs* strictly speaking are not their sensible or psychological vehicles, but that this vehicle, loosely called a "sign" (especially in the case where it is a sensible object), is but the subjective foundation or ground (the vehicle, we might say) for an irreducibly triadic relation which, in its proper being, is not subjective but suprasubjective in linking its subject term to a terminus or object signified as represented to some observer or interpretant, prospective or actual in *its* subjective being; and which, as a relation, is indifferent to passing back and forth between psychological and material vehicles of conveyance. Thus, while both the sign vehicle and the observer when actual are subjective beings, the sign itself is always and irreducibly suprasubjective. And the "object signified" or significate of the sign is itself always and irreducibly sustained as the direct terminus of a triadic relation regardless of whether it has any subjective being at all as an immediate part of its objective being, its "objectivity", or status as signified.

If the most important development for the immediate future of philosophy (and perhaps for intellectual culture as a whole) is to be, as I believe, the realization of the centrality of the doctrine of signs to the understanding of being and experience for human animals, the realization of the *presupposed* character of signs and the action of signs to the very objects, structure, and texture of experience, then Peirce's recovery of the notion of *signum* from the Latins may be said to have marked the beginning of a new age in philosophy. By overcoming the forgottenness of *signum*, the veritable *Zeichensvergessenheit* of modernity (as including Heidegger in this particular), Peirce also destroyed the common foundation upon which the mainstream modern philosophers (from Descartes and Locke to Kant in the classical phase, continuing with analytic philosophers and phenomenologists in our own day) had constantly built. There are some today, we have seen, who embrace modern philosophy's culminating doctrine that only the mind's own constructions are properly said to be known, ones who have yet tried to coin and appropriate the phrase "postmodern" to advertise their stance. But the vain appropriation cannot conceal the stipulation which guarantees that these would-be postmoderns are nothing more than surviving remnants of a dying age, the last of the moderns, in fact, the "ultramoderns". The future, in philosophy and in intellectual culture more broadly conceived, belongs rather to semiotics, the clearest positive marker we have of the frontier which makes modernity be to the future of philosophy what Latinity was to philosophy's future in the time of Galileo and Descartes – though this time we will hardly be able to repeat Descartes'

⁷⁵ The matter has been documented in Beuchot and Deely 1995. And I suggest that one of the most telling results of his Latin forays were his singular "ethics of terminology": see Peirce 1903; Deely 1998a.

mistake of counting history as nothing, as the joint work of Williams and Pencak⁷⁶ has perhaps best shown.

Classical Antiquity and Semiotics

What about the Greek world before the coming of *signum*? Is Eco's discovery really credible? Of course, we can hardly explore in detail the whole of the Greek world of antiquity and philosophy's birth at this juncture under present circumstances. Suffice to say here that glancingly in Plato and thematically in Aristotle's discussion of relation among the categories do we find the beginnings of the solution of the mystery of how there can be a being as at home in fiction as in fact, in nature as in culture.

It remains that, when we look back from the present to those two ancient ages of understanding when the development of philosophy was carried first by the Greek language and then by the Latin, the general notion of sign amounts to the first Latin initiative in philosophy. Before the age of modernity began around the turn of the 17th century, the Latin Age as an organic whole ended in speculatively justifying the general notion of sign with the promulgation of which that age had begun, the general notion of sign we today take for granted as the badge of postmodernity.

In the ancient world, as might be considered indirectly indicated from a survey of its more prominent philosophical features, the notion of "sign" was neither a central notion nor even the general notion that has become central to establishing the contrast of postmodern with modern thought.⁷⁷ The notion of sign whereby Peirce, borrowing from the Latins, is able to mark the initiation of yet a fourth age of human understanding, one as discontinuous with modernity in its epistemological thrust as modernity was from Latin times, is nowhere to be found in the original Greek florescence of philosophy. We have made this

⁷⁶ See Williams and Pencak 1991; and Williams 1984, 1985, 1985a, 1985b, 1990, 1990a.

⁷⁷ The 1846 first American ed. of Liddell & Scott's *Greek-English Lexicon* enters three fields or ranges of usage under the entry for Σημεῖον (p. 1341). First: a mark by which something is known; a sign from the gods, an omen; a signal to do a thing; a standard; a device or badge; a signal, watchword or warcry. Second: a sign or proof. Third: a point. The 9th English ed. of the same lexicon (p. 1593) expands upon these three ranges as follows. First: mark by which a thing is known; sign from the gods, omen; sign or signal made by flags to do a thing; standard or flag; landmark, boundary, limit; device upon a shield or figure-head upon ships; signet on a ring; watch-word, war-cry; a birthmark or distinguishing feature. Second: sign, token, indication of anything that is or is to be; in reasoning a sign or proof, an instance or example; a probable argument in the logic of Aristotle, an observable basis of inference to the unobserved in Stoic and Epicurean philosophy; in medicine symptom; shorthand symbols; critical mark. Third: a mathematical point, instant, unit of time.

In this threefold range, notice first the absence of any usage that pertains to a general theoretical discussion of sign. Notice further that the few examples of usage designating cultural phenomena as signs are examples of cultural items that function indexically, the way that medical symptoms function. Notice finally that the examples adduced from theoretical contexts of discussion are just those we have emphasized in Aristotelian, Stoic, and Epicurean logic.

In ancient Greek usage, thus, a sign appears at most as a type of phenomenon among and contrasting with other types, never in the theoretical guise of a general mode of being ranging across and into which all other types of phenomena enter, as Augustine will be the first to suggest and Poincaré the first finally to explain sign to be for the medieval Latin usage. Postmodern times begin only when the Latin conception is not merely recovered but its consequences first developed and explored theoretically in the pioneering studies of Peirce. "From sign as an object among other objects to that which every object presupposes" is a fair summary of the semiotic trajectory along which philosophy traverses the centuries of speculation from ancient to postmodern times, the trajectory according to which we plot the "one long argument" which is the present work.

point using the celebrated authority of the Liddel and Scott *Greek-English Lexicon* in the last footnote, but the point is perhaps even better illustrated by consulting the work of Cicero, who, after all, created the main original Latin version of the ancient Greek philosophical vocabulary four centuries before Augustine will take up his pen. Cicero's use of the term *signum* in his Latin writings and translations from Greek reflects the same practical, naturalistic, and divinatory particular usages mirrored so many centuries later from ancient Greek writings in the Liddel and Scott *Lexicon*.⁷⁸

Among the Greeks, we may close by noting that, when we look to usage in theoretical texts, the sign belonged all but exclusively to the natural world, and was regarded as belonging above all to the province of medicine and the forecasting of weather (or of science in the modern sense, we could say, had the Greeks clearly conceived of science in that sense), whence even though a notion of sign played a major role in the epistemological positions debated between the Stoics and Epicureans, the sign as conceived in and central to that debate was not "sign in general" as verified alike in cultural and natural phenomena, but only "sign in particular" as instantiated in the class of natural, sensible phenomena. Whence too even that specific notion of sign crucial to the epistemological development of late Greek antiquity has played no major part in the traditional modern histories of ancient philosophy, although we have performed had to highlight and showcase that debate in this first postmodern attempt at such a history.

The Greek term normally translated as "sign", σημεῖον ("sēmeion"), is therefore inevitably misunderstood unless the reader of the translation is clued to the fact that this so-called "sign" is more like what we would call a *symptom* of disease, for example, or what the Latins would call a "natural sign", *signum naturale*, such as the "red sky in the morning from which sailors take warning", or the presence of milk in a woman's breast signifying a recent childbirth.

To our much later consciousness it may seem odd, but the Greek philosophers never conceived of the phenomena of culture as such (excepting only very specific, indexical instances or types of cultural creations, such as insignia and standards), including the species-specifically human exaptation of language to communicate (an exaptation itself commonly mislabeled as "language"), in terms of signification or the action of signs. The sign was viewed in the perspective of Greek philosophy and science principally, all but exclusively, as it manifested itself on the "nature" side of the "nature-nurture" dichotomy.

In this original perspective of understanding, the σημεῖον or "sign" pertains to human discourse only insofar as that discourse attains to an understanding of nature or speculative truth, in the *lekton* of Stoic logic or in the *proposition*, the *dicisign*, of Aristotle. Thus, whether in the medical tradition from Hippocrates (c.460-377BC) to Galen (129–c.199AD)⁷⁹ or in the logical traditions that develop after Aristotle first and later also Chrysippus (the Stoic line) and others,⁸⁰ the sign is thought of as encountered

⁷⁸ Compare the Liddel and Scott Σημεῖον entry with the entry "Signum" in Merguet's *Lexikon zu den Philosophischen Schriften Cicero's*, Vol. III, pp. 534–536.

⁷⁹ On this, see especially the work of Sebeok 1984c and 1996.

⁸⁰ On this, see especially the work of Deledalle 1987.

in the Umwelt only in sensible nature and, derivatively therefrom, at that singular juncture of human discourse where the understanding attains an object under the guise of being adjudicable as "true" or "false".⁸¹ That such an attainment was species-specifically human was a firm opinion among the ancients; yet the ground of this attainment began to be thematically considered in its own right only in some of the more neglected aspects of the writings of Aquinas, as we will have occasion to later see.⁸²

In passing from "natural sign" or σημεῖον to "sign in general" or *signum*, we may say, we first cross the frontier separating the Latin Age from the original Greek florescence of philosophy. Similarly, we have seen that in the later forgetfulness of *signum* the thinkers of what will become the classical modern mainstream will establish a principal boundary separating modern times from the later Latin Age. And, later still, we find that in the Peircean recovery of *signum* semiotics establishes yet another line of demarcation, a new frontier separating authentic postmodern thought from the various idealistic pretensions to surpass modernity, pretensions the hollowness of which is betrayed by their preservation of the epistemological and metaphysical essence of modern philosophy in conceiving of the sign as a vehicle exclusively arbitrary or linguistic in its construction. In this summary I have adumbrated the substance behind the title of the book, *Four Ages of Understanding*.

No doubt there will be a "fifth age" (let us not make Hegel's mistake of presenting a Prussian state as the end of history), and beyond that yet others as new themes sufficiently vast emerge in awareness to define and govern new epochs in the development of human understanding over the next two thousand years. But, if the past history and gait of philosophical development are reliable indicators, that "Fifth Age" will not even begin to take form before the 22nd century at the very earliest, more likely the 25th. By then, the notion of an "action of signs" and the dependency of objectivity on that action and the systems of signs it generates while interweaving the natural and the cultural, the speculative and the practical, will be so well established and so prominent at the forefront of popular consciousness that the time when "semiosis" was a strange new word will seem a time positively neanderthal. Such is the pattern according to which the presuppositions that guide each age in its development are first formed and then taken for granted as the new generations of semiotic animals get on with the business of their life: for among intellectual beings, understanding is what distinguishes their life,⁸³ even as to perceive and act accordingly is the life distinctive of animals, or to take nourishment is the life distinctive of plants.

Concluding Summary

⁸¹ See, for example, in Aristotle, Ch. 27 closing his *Prior Analytics*, 70a3–b38, where σημεῖον as a term recurs no less than eighteen times. I am grateful to Professor Deledalle who marked for me and sent to me this text in the Greek in a correspondence dated 15 October 1996.

⁸² See Chapter 7 in the forthcoming *Four Ages*, esp. the section on "The Problem of Being as First Known", p. 341ff. I have also taken this matter up in a separate monograph, not historical but directly speculative, under the title *What Distinguishes Human Understanding?* (Deely 2001).

⁸³ "Intelligere in intelligentibus est esse", as Aquinas might have said.

So what shall we say is to be the impact of semiotics upon philosophy? We see that it revises the standard history dramatically. Instead of seeing the Latin Age as a dark period of superstition wherein only gradually are the threads of Greek speculation taken up anew to culminate in the mighty Aquinas and thereafter descend to the Nominalism of Ockham which, taken up in the 17th century, becomes modern philosophy on one side and modern science on the other, but in between nothing, we see rather a tropical landscape of signs with an organic unity in the sign from its first proposal in Augustine to its vindication in Poincaré. Modern science, far from being itself a nominalism, appears rather as a continuation of the realism which animated ancient and medieval Latin thought alike, but now become aware of its requirements as idioscopic, not cenoscopic; while modern philosophy appears rather as nominalism indeed, as at odds with the health of scientific understanding as Mr. Hyde was to Dr. Jekyll, an interval wherein the natural development of the doctrine of signs was suspended in favor of the more immediate tasks of modern science and political life, about which there is much of the utmost importance to be said, not only in the matter of religious reformation but in the matter inquisition and Pierre Bayle's first thematic attempt to refute Augustine's warranting of the use of police powers of the state to regiment religious orthodoxy among individual thinkers.

Nor is the interest purely historical, in the sense that philosophers today like to dismiss as "history" in contrast to really "doing philosophy". A vain pretense, this distinction, when it is used to avoid dealing with the fact that deductive logic applied to ideas clearly in mind is hardly the only instrument of philosophy, that history is the very laboratory of philosophical ideas, as Gilson pointed out. "If the question were simply what we do mean by a sign," as Peirce said,⁸⁴ "it might soon be resolved." But we are rather in the situation of the zoölogist who wants to know what is sign such that it can function in the way that it impresses us as doing, revealing nature, stitching together culture and nature, real and unreal relations, in weaving the fabric of experience, and leading us down blind alleys and cul-de-sacs as well as broad avenues of being in the forests of human belief.

By any standard, the displacement or thorough remaking at least of what passes for epistemological theory in philosophy is directly at stake, the "midmost target" of semiotic development, as Sebeok put it.⁸⁵ As early as the 1st century BC, we know from Philodemus,⁸⁶ the notion of natural sign, the σημεῖον, was an epicenter of dispute over the nature of inference between Stoics and Epicureans, and was even before that seen as focal to Aristotle's notion of propositional content.⁸⁷ Augustine expanded the horizon considerably when he brought also language under the rubric of *signum* as transcending the divide between nature and culture. Aquinas, Scotus, and the later Latins expanded the horizon further still by bringing psychological states under the same rubric, transcending now the distinction between the inner

⁸⁴ Peirce 1904: 8.332.

⁸⁵ Sebeok 1991: 2.

⁸⁶ Philodemus i.54/40BC.

⁸⁷ Aristotle c.348/7BC.

and outer universe, so that already the Conimbricenses could say,⁸⁸ as Peirce would repeat, that all thought is through signs. But still, whether we speak of psychological states ("ideas and feeling") or sense perceptible phenomena ("natural and conventional occurrences") as "signs", the realization that the sign strictly speaking, in the being proper to and constituting itself as such, consists not in any particular thing — inner or outer — as vehicle but in the very relation itself triadic and imperceptible (in contrast to the related things) uniting three particulars (two of which need not even exist outside of the in-principle-public sphere of objectivity), as Poinsoot demonstrated,⁸⁹ was a decisive moment for any theory of knowledge; for it demonstrated at once the distinction in principle between sense perception, as restricted to grasping related things ("using signs without knowing that there are signs", as Maritain put it), and understanding, the biologically underdetermined modeling system of "language" able to think relations as such in their difference from related terms, and the fact that, at bottom, "signs" are not any class of objects among other objects that can be seen and pointed to but strictly invisible networks of relations which every object presupposes in order to *be* as an object, that is to say, as something experienced and apprehended. Far from being reducible to any subjectivity, whether physical or psychological, signs belong rather to the suprasubjectivity whereby subjectivity itself is objectified and made public in communication (intersubjectivity achieved, wherever it occurs) and, in principle if not always in fact, in human understanding.

These are matters of importance and of the greatest interest philosophically, but one paper can do only so much.

I hope the providing of a new overall outline of philosophy in its history, a redrawing of the map of philosophy as it provides any guidance at all into future developments of understanding (the understanding of understanding in particular), has been enough for the present occasion. For, as Peirce best noted, the meaning of what we say in this present symposium cannot be fully determined here and now, but all depends on discourse yet to come.

⁸⁸ Conimbricenses 1607: q. 2. Art. 3. p. 27.

⁸⁹ Poinsoot 1632a: Book I, esp. qq. 1 and 3.

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ARISTOTLE (384–322).

Note: our citations here are from the 12-volume Oxford edition prepared under W. D. Ross Ed. 1928–1952 (q.v.); for the convenience of the reader, after the abbreviation RM, we also give the pages where applicable to the more readily available one-volume edition of *The Basic Works of Aristotle* prepared by Richard McKeon using the Oxford translations (New York: Basic Books, 1941). Chronology for the works is based on Gauthier 1970, as follows:

c.360–330BC. *Organon*, i.e., Aristotle's writings on Logic, in Oxford Vol. I (RM 1–212). The title "Organon", which means "instrument", seems to have originally been assigned as a general title for these writings by either Andronicus of Rhodes in the 1st century BC or Diogenes Laertius in the 3rd century A.D., and has been retained ever since: see Chapter 3 above, p. 89n66. The *Organon* consists of:

- c.360BC. *Categories* (trans. E. M. Edghill; RM 1–37 complete).
- c.353BC. *Topics* (trans. W. A. Pickard-Cambridge; RM 187–206 incomplete).
- c.353aBC. *Refuting Sophisms* (trans. Pickard-Cambridge; RM 207–212 incomplete).
- c.348–7BC. *Prior Analytics* (trans. Jenkinson; RM 62–107 incomplete).
- c.348–7aBC. *Posterior Analytics* (trans. G. R. C. Mure; RM 108–186 complete).
- c.330BC. *On Interpretation* (trans. Edghill; RM 38–61 complete).

As noted in Chapter 3, Arabic Aristotelian tradition includes the *Rhetoric* (composed c.335–4BC) and the *Poetics* (c.335–4aBC) as part of the *Organon* itself, the part, specifically, pertaining to practical in contrast to theoretical discourse, i.e., discourse about what is to be made or done in contrast to discourse about the nature of things as transcending human action. Cfr. Lanigan 1969; Black 1987.

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