What Semiotics Is

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Abstract

Charles Peirce compares the action of signs to what our experience of blue would have been had we been born wearing blue-tinted glasses: it is an influence on our experience that runs so deep we do not even become aware of its influence until some circumstance or other forces us to realize its action in shaping our identity and lives. For human animals, it was our becoming aware of the difference between the world as it appears to be in everyday experience and the world as it appears through telescopes and microscopes that, “slow-by-slow”, forced intellectuals of modern times to recognize the need for recognizing a point of view that transcended the difference between the critical control of objectification reliant mainly upon “common experience” and the extension of that control to include the “special experiences” made possible by experimentation reliant upon instruments with results mathematically integrated. That realization marked the dawn of the postmodern era of intellectual culture, the era where it comes to be understood that the action of signs (semiosis) provides the framework for the whole of human knowledge, from its animal origins in sensation to its farthest reaches beyond the material world in the contemplation of spiritual dimensions within the physical order of being as independent of awareness by finite mind.

Keywords: early intellectual culture, modern philosophy, modern science, postmodern intellectual culture, semiotics, semiotic challenge

The question before us is, “What is semiotics?”
The answer is that semiotics is the antidote or response, if you will, the remedy to the increasing specialization required by the rise of science in the modern sense—ideoscopic science, as will be explained below—beginning in the 17th century.

What do I mean by that? How so?
1. The Intellectual Culture of Europe in the Time of Galileo (15 February 1564–1642 January 8)

Let us take the case of Galileo, just because it is so famous, although the really interesting thing about the Galileo case is that it was just the tip of the iceberg. The madness rampant in the 17th century on the part of religious authorities against the development of what we have come to call “science” Jacques Maritain described (1970, p. 211) as something that exceeded the patience of God. So, though what happened in Europe in that early 17th century was on one side a great thing, on another side it was a disaster: for our civilization and science it was a great thing; for philosophy as a discipline within cenoscopic science (the framework discipline for the whole of science, as a matter of fact, and as will hopefully become clear in what follows) was a disaster.

Why? The philosophers of the “middle ages” had for the most part been closely associated—for better or for worse—with the church authorities. It was natural that it should be so, for, after all, the original universities were all founded by the Church of the time; but, as Aquinas forewarned, the link can be too strong (see “Projecting into postmodernity aquinas on faith and reason” in Deely, 2010a, pp. 279-301). There was only one major split in Christianity as the university world dimension of human intellectual culture was coming into being, and that was the split between the Greek Christian Church and the Roman or Latin Christian Church. Only looming on the horizon was the “vis a prospecto” that will come to be known as the “Protestant Reformation”, a necessary revolt against the abuses that would develop within the Latin church. This revolt would take on an appearance similar to the French Revolution: viewed from afar, it looks to be a great and glorious event, yet the more you examine it up close and in detail it appears even more as a bloody disaster, something that could and should have been avoided had only the aristocratic structures of privilege within the human social order of Latin culture not blocked the way.

The Reformation is somewhat like that, inasmuch as all its leaders, with the partial exception of Calvin, were Biblical Fundamentalists, holding that all you need is the Bible to attain the truth, the whole truth, and nothing but the truth about everything in the universe that pertains to human beings, including the relation of our planet to the sun, moon, and stars. You don’t need science, you don’t need philosophy, you don’t need anything, really, besides the Bible (memorative of the Islamic attitude toward the Koran in their mid-7th century burning of the library at Alexandria).

What Galileo and others like him were bringing about was indeed—or should have been by rights—a natural development of the physics or “natural philosophy” taught within the medieval universities since the time of Albert the Great (c.1201–1280) and Thomas Aquinas (1224/5–1274) (Deely, 2009a). For those “high medievals”, inspired by Aristotle (BC384–322), the question was to find out what the world of nature is in its proper being, in its dimensions independent of human belief or desire or opinion. Let’s find out what this “ens reale” is.
1.1 A cultural derailment
But unfortunately, because of the way the authorities structured the situation over time, the development of commentaries upon Aristotle as supported by the Bible had come to be regarded as the only proper way for human reason in its own sphere to proceed in this study of nature. This centrality of the views on nature developed by Aristotle himself was deemed all the more crucial in consideration of the fact that Aristotle’s hypothesis of a radical distinction between “celestial matter” as subject only to change of place in contrast to “terrestrial matter” as alone subject to substantial change (coming to be and passing away of individuals), with the earth situated immovably at the center of the universe around which revolved the sun, moon, and stars—all this presented a picture that conformed rather well with biblical sayings on the relation of earth and sun. So what had started out in Aristotle’s own lifetime as an abduction, a “guess at the riddle” of the universe’s constitution, became over the later Latin centuries a veritable dogma wherein the commentaries on the books of Aristotle and his followers settled into a hardened doctrine wherein natural philosophy and Christian theology in the universities had come to be regarded as, so to say, “joined at the scriptural hip” (Fantoli, 2012).

Hence, when the early moderns began to develop instruments which revealed of nature features hidden to the unaided senses on which the early development of cenoscopic science perforce depended, and to propose experiments whereby these new features of nature could be mathematically evaluated in relation to the cenoscopic opinions (i.e., the opinions based on ordinary sense experience alone) developed in the Latin university Scholastic traditions of commentary, the idea was to turn from exclusive attention to the “books of men” to thematic study of the “book of nature” according especially to ideoscopic discoveries (i.e., discoveries which could by no means be achieved without the use of instruments and experiments extending our environmental awareness well beyond what the unaided senses could in principle reveal) as the additional basis for critical evaluation of the objectification in which our surroundings become known to us in the first place.

The problem was that this new emphasis on theories of an ideoscopic character based on new dimensions of experience seemed to the authorities mainly to presage a dangerous revolt against the established ideas of university life, not only in natural philosophy but also, and even more importantly, in the nexus between the “traditional” or Scholastic teachings in natural philosophy and the biblically based teachings of the theologians and Church magisterium (Fantoli, 2012). So the religious authorities, including, notably and personally, Pope Urban VIII, stepped in to “put a stop to this nonsense” stemming mainly at the time from the suggestion of Copernicus as pressed by Galileo that, surprise surprise, it is the earth that is revolving both around the sun and on its own axis, not the sun that is revolving around a stationary earth.

1.2 The intellectual culture of “Enlightenment”
There is indeed no small element of irony in this role that the work of Copernicus came to
play in precipitating of what should have been merely *a shift of emphasis* from cenoscopic ("common sense") to ideoscopic ("experimentally grounded") theorizing (I will clarify the point of this distinction mainly below in the last paragraph of Section 6), but what became in fact *a veritable revolution* wherein "shift of emphasis" became instead "veritable rupture". This unnatural and unnecessary break led to the idea (mistaken in an opposite way) that ideoscopic knowledge could completely displace every possible achievement of cenoscopy (the Enlightenment idea of “science” as properly dealing exclusively with what can be seen and touched) with this “scientific” knowledge (ideoscopy) displacing eventually *in toto* any and every critical analysis of objectivity achieved on a cenoscopic basis.

The mote in the eye of their religious brethren came so to preoccupy proponents of Enlightenment thought that they saw not the beam in their own eye! For ideoscopy in going beyond cenoscopy nonetheless *presupposes* cenoscopy as providing a framework without which neither cenoscopy nor ideoscopy—i.e., any intellectual critical control of objectification—would be in the first place possible. Such oversight was the true “Dream of Reason” of which Gottlieb (2001; see the commentary in Deely, 2003, p. 109n18), along with all those who continue to cling to the Enlightenment error on the point, reached a mistaken characterization.

An irony is that Copernicus came to concentrate on the movements of the earthly heavens as a result of having been papally appointed to the commission charged with the task of measuring more exactly the relative movement of sun to earth for the purpose of correcting the Gregorian calendar, which had gradually come to be unreliable in its determination of the “four seasons”. For want of sufficiently precise measurement of the sun’s “rising and setting”, the calendar based on that “rising and setting” was getting more and more out of whack. To reform the calendar, then, more precise measurement of the “rising and setting” over the course of the calendrical year was necessary—and in the process of seeking just this greater precision—Copernicus was led to abduce (c.1514) that we had gotten it all wrong in our thinking that our earth was the stationary body and center of a revolution by the sun.

And believe it or not (such were the times), Copernicus felt it prudently necessary to *keep this suspicion, this abduction, secret*, from all but a trusted inner circle of his associates, for nearly thirty years. Only on his deathbed did Copernicus decide to go public with his idea that the earth was revolving about the sun, and not the sun around the earth. But even then, even as this book of 1543 was in press, the Lutheran Andreas Osiander (19 December 1498–1552 October 17) intervened to add to the manuscript a preface at once unauthorized and unsigned which in effect glossed over and shunted aside Copernicus’ own conviction that the true relation of sun to earth was heliocentric, not geocentric. Copernicus died in peace, blithely unaware presumably of this betrayal of his work.

Now to us today, at least within the context of the civilization heir to the Enlightenment, it is incredible to think that anyone could be put in danger of their life by proposing that the earth goes around the sun rather than the reverse. But were you to live
under some of the fundamentalist Islamist regimes of today’s “Middle East” you might experience what it is like to live in a state where you really are at risk of your life for making simple critical statements deemed contrary to the prevailing religious teaching and “Koranic reading” of the religious authorities.

When Galileo came along, he got very aggressive indeed in proposing as true the heliocentric theory, despite its incompatibility with the literal reading of Scripture, with the writings of the Church Fathers, and with the Scholastic hardening of Aristotelian physics from a cenoscopic analysis to a cultural dogma of university teaching independent of any need for “retroduction” in the sense of a testing of the developed ideas against new data arrived at experimentally. This is the sense of retroduction introduced in note 2 above concerning the “semiotic spiral”, whereby human experience supports, within the “community of inquirers”, an ever-growing understanding of our surroundings. Galileo winds up being condemned (22 June 1633) as a promoter of heresy and sentenced to prison for life—“Oh, it was only house arrest”, my defensively conservative Catholic friends dismissively respond. Indeed, “only”: [Pope] Urban VIII allowed Galileo “to return to his villa to live there in solitude, without summoning anyone, or without receiving for a conversation those who might come, and that for a period of time to be decided by His Holiness”. This period, in fact, lasted until his [Galileo’s] death [i.e., from 22 June 1633 to 1642 January 8]. (Fantoli, 2012, pp. 215-216)

Galileo could not go out even to see a doctor if it required leaving his own grounds after the infamous “trial” wherein the Church authorities made fools of themselves for all of history gradually to recognize.

1.3 The response of Descartes (1596–1650) and Poinsot (1589–1644) to the Trial of Galileo

The basic result in early modernity of the “trial of Galileo” was to discredit not only the theology of the time but also the whole Scholastic tradition of the universities in philosophy and theology alike. At the time of Galileo’s 1633 condemnation, for example, Descartes had a book at the publisher similarly proposing a theory that the earth moved; and John Poinsot likewise had just submitted to press his own work on astronomy, to be volume 3 of his projected 5-volume Cursus Philosophicus synthesis of Latin thought. Both Poinsot and Descartes pulled their books from the press upon learning the news of Galileo’s condemnation.

In Descartes’ case it is easy to see why (recall Watson’s observation in note 1 above) he pulled his book. It is not as easy to say why in Poinsot’s case (since the pulled manuscript has never been seen since it was pulled), inasmuch as Poinsot’s views expressed in writing were most probably in line with the tradition Galileo had challenged, although also certainly not in line with the groundless assurance (the “myopic authoritarianism”, Fantoli calls it?) with which the inquisitors of the day condemned the heliocentric alternative
to geocentrism. For though Poinsot was unquestionably a Scholastic philosopher (and theologian), his work, monumental and massive, stood out within the late writings of that tradition by his explicit and firm recognition that deductive developments of ideas, however sound as deductions, still have ultimately to be *tested* against the ever-growing web of human experience as woven by the action of signs, “semiosis”.

Appalled by the over-reach of the Church authorities in pressing an imagined level of certitude properly ascribable to the scriptural and cenoscopic interpretations on which the condemnation of Galileo was based,\(^9\) Poinsot chose rather to dissociate himself from the matter rather than publish a treatise which could be construed as lending support to the rash condemnation. For make no mistake: the 1633 trial of Galileo resulted no less in a condemnation of heliocentrism than in a threat to those early moderns who would move our understanding of physics from the exclusively cenoscopic foundations of tradition to establish also ideoscopic foundations at once extending and enriching whatever had been properly achieved at the cenoscopic level, where alone an *initial* critical control of objectification can be accomplished (recall the observation in note 5 above). And note well that precisely a critical control of objectification is what defines and constitutes the process in which *all* science consists, as a species-specifically human achievement (thus whether considered cenoscopically or ideoscopically).

Small wonder that the whole condemnation process of the Galileo affair boomeranged, so completely that, from 23 June of 1633 to the present day, it has been the judges and authorities governing the trial of Galileo who have themselves been put on trial and increasingly condemned by history: thinking to condemn Copernicanism and any other thinking independent of Magisterium and Bible, the “authorities” in the affair have wound up themselves condemned, while what they condemned has been vindicated, and civilization itself has come increasingly to depend upon a framework scientific in its full extent (neither cenoscopic nor ideoscopic exclusively), in farms no less than cities!

2. The Establishment of Science and Philosophy as “Modern”

The result of the whole turn of the 17\(^{th}\) century socio-cultural situation—as I say, typified by (but hardly confined to) “the Galileo affair”—was an unnecessary, unnatural, and harmful split between the older Scholastic tradition, which came to be flat-out rejected, and the new beginning undertaken experimentally in both philosophy and physics to give to reading the book of nature experimentally priority over reading and commenting upon the books of men.

In this “new beginning”, the early modern philosophers and scientists considered themselves as one. Yet as we look back, the name of Galileo inspires thought of science in the modern sense, while the name of Descartes inspires more thought of philosophy in the modern sense—philosophy in the sense of those thinkers who heeded Descartes’ advice of 1628 to beware of the medieval authors “lest in a too absorbed study of these works we should become infected with their errors, guard against them as we may” (Descartes,
1628, p.6). Small wonder that, soon enough, the moderns came to stop reading at all, let alone continuing to discuss, the views of Latin Scholasticism, lest yet another generation, without even realizing it, become infected with the very errors which led to the condemnation of Galileo’s work and the “error in principle” of thinking that theology and interpretation of scripture can dictate what experimental results are possible and where those results can lead our understanding of the universe (see Deely, 2009a).

Still, the early fraternity of the moderns in philosophy with the moderns in science proved to have its own strong element of illusion. Just as there was no fully clear division in Galileo’s own lifetime between astrology and astronomy, so also in that same time frame there was not yet a recognition that science and philosophy in the modern sense were about to head down two completely different paths. For the philosophers soon enough come to realize that, once objects have been reduced (as a consequent of embracing Ockham’s view that relations have all and only an awareness-dependent being (Deely, 2013)) to ideas as mental self-representations “in and of the mind”, we really cannot come to know anything of what lies beyond the veil of phenomena produced initially by ideas at the level of sense.

2.1 The semiotic challenge to philosophy as “modern”
But is there a “veil of phenomena” in modern philosophers’ sense of the term? Does sensation depend upon the formation of ideas no less than does perception, no less than does intellection? The scholastic strain represented by Aquinas and Poinsot,10 which insisted that there are no “ideas of sense”, only ideas of sense-perception in contrast to sensations prescissively considered, was drowned out in the melee. The very crucial distinction between phantasiari and sentire, which Aquinas and Poinsot deemed the fundamental basis of “realism” in the Scholastic sense (as Peirce called it) of a knowable access to being as it obtains independently of human awareness (so-called ens reale, see esp. Sections 7.22), was simply passed over and ignored in the modern philosophical discussion up to and including the synthesis of Rationalism and Empiricism in the work of Kant (1781, 1787). Poinsot’s further demonstration that sensation already consists in a semiosis—an action of signs, prior to and below (foundational to) the very level of idea-formation giving structure to animal perception as Umwel11—remained likewise an analysis of which the “Rationalists” and “Empiricists” remained oblivious.

Ignored at the same time was crucial realization that relation can be verified not only as a mode of ens reale, but further as the only such mode which has no direct involvement with matter in the sense of what can be seen and touched. As a consequence, relation is indifferent in its suprasubjective termination to the distinction between what is inside or outside a subject’s “mind”, indifferent also to distance or location in space as well. In short, the very being proper to relation (its “singularity”, as I would call it), which Poinsot identifies as the suprasubjective mode which makes an “action of signs” or semiosis possible in the first place, along with the prescissive distinction between sentire (“sensation”) and phantasiari (“sense perception”), was a matter left unconsidered in the
early modern development, wherein the work of the scholastic authors who developed the matter being pushed aside and ignored.

Kant (1724–1804) did indeed criticize Descartes (1596–1650) and Locke (1632–1704) for being “too subjective” in their idealism, and he did indeed re-introduce relations into the picture of knowledge (see “Synthesis and successors: The strange case of Dr. Jekyll and Mr. Hyde”, Chap. 13 of Deely, 2001, pp. 540-589, esp. pp. 553-570 and pp. 561-564). But Kant conceived only relations completely dependent upon the mind, relations which quite left the “things in themselves” as not merely unknown but quite further unknowable “in themselves”. That is, according to Kant, things are unknowable in whatever being they have (“ens reale”) prior to and independent of the human formation of those “mental representations” which, in the opinion of Descartes, Locke, and Kant, remember, (not in the opinion of Aquinas and Poinsot) we call sensations as constituting the putative “phenomenal veil” which alone “reason” can structure and know. (So we have with Kant a “phenomenal veil” of precisely the sort that Poinsot expressly denied an existence of in his analysis of sensation as a semiosis within and simultaneous with, yet logically prior to and hence prescissively distinguishable from, perception and intellection alike).

From the time of Kant to the present day, while many—indeed, most—have avoided facing up to the consequent, no one on the side of modern philosophy has been able to explain how, starting with the thesis that what we are first aware of is that psychological state called an idea (formed under whatever influence by our mind itself), can we get beyond solipsism. Bertrand Russell (1959, p. 26, 105) summarized this central problem of modern philosophy concisely. Despite the fact that, given the assumption of modern philosophy common to Descartes on the Rationalist side, Locke on the Empiricist side, and Kant in his synthesis of Rationalism and Empiricism, “we cannot witness or observe anything else at all” except “what goes on in our heads”, yet “those—and I fear they are the majority—in whom the human affections are stronger than the desire for logical economy, will, no doubt, not share my desire to render solipsism scientifically satisfactory”.

On the side of science, of course, the scientists simply got on with their investigations (all the way from Galileo’s “Medician planets” to Mission Control in Houston) of that very world supposed “unknowable” by the “modern philosophers”. Yet neither side of this modern split seemed to realize, let alone to examine, that the ground of the claimed “unknowability” of a world “external” to the mind’s own mental constructions lay in the early modern mistaken and unexamined presupposition that sensation within sense-perception depends, directly and equally with perception as a whole, upon ideas as “mental representations”. The early moderns further crippled their new mainstream development in philosophy with the unexamined and mistaken assumption that ideas as mental representations are the very self-representations that objects are, in contrast with objects considered rather as terminating other-representations regardless of whether as objects they have within their objectivity the subjective dimension required for the relation suprasubjectively presenting the object within awareness to be intersubjective as well as suprasubjective.
2.2 The specializations required for the growth of modern science

Modern science, in its growing contrast with philosophy over the modern centuries, continued and continues to ignore the *ne plus ultra* dictate of modern philosophy with its so-called “epistemological teaching” that the mind in knowing knows only its own products of its own workings. Very few, of course, were willing to accept the consequent of this modern notion of “epistemology” as leading inescapably to the “no exit” of solipsism, as we saw Bertrand Russell ruefully comment (Russell, 1959, p. 26, 105). But refusal to face up to or accept a logical consequence is a psychological shortcoming, not a removal of the consequence. So you can forget about modern philosophy, at least on its speculative side as “epistemology”—though not on its practical side, where the achievement of nation states wherein religious authority is separated from civil power, with the consequent result that freedom both of conscience and inquiry becomes, at last, something real! (After all, logical consistency is not the whole story of human understanding, however important its role in the development of intellectual culture overall). Only the epistemological dimension of modern philosophy leads unavoidably to the dead end conclusion that consciousness is ineluctably solipsistic;¹³ modern science is quite another story—one vindicative, as Peirce constantly insisted, of “realism” in the scholastic sense common to Scotus, Aquinas, Poinsot, Poinsot and other mainstream Latins opposed by William of Ockham (c.1285–1349).

Yet modern science requires specialization, to such a degree that it took academics almost two centuries to figure out how that specific sense of science (the modern sense) might be integrated into the university curriculum. And yet, if you talk to a young person today about the university, the main thing they tend to think of is science. One today can hardly imagine a university without departments of physics and chemistry and biology, etc., while only a few still speak of “natural philosophy”—i.e., “physics” in the cenoscopic sense. Even so, the *specialization* required to do scientific work, with its experiments and mathematization of results, is so intense that it brought about, from the point of view of the “liberal arts”, a virtual disintegration of the intellectual culture of the university as a whole.

3. Is There No Unity in Intellectual Culture?

By the time you reach the end of the 19th century and early decades of the 20th century, proponents of the “liberal arts” and a “general education” are desperate to find *some way* to re-integrate the intellectual life and culture of students and faculty alike. They are able to come up with, basically, only two proposals.

One is the “great books” program, notably in the hands of Mortimer Adler, Richard McKeon, and Robert Hutchins at the University of Chicago. The approach is quite worthwhile, as far as it goes; yet in essence it is nothing else than a return to Scholasticism as the tradition of commentary upon the “books of men”, albeit now with a wider range of authors read.

So that is one approach to remedying the limitations of scientific specialization, but
hardly an adequate one.

The second late modern attempt at solution has been the introduction of so-called “interdisciplinary courses”. The administration finds two professors or three professors with quite different specializations, yet who “get along” with one another socially. One, say, is a physicist, the other a biologist, or social scientist, or whatever; and you get them to agree to teach a class together, and this will then be de facto an “interdisciplinary course”. And that approach to the problem is fine, too, as far as it goes. But how far does it go? The whole thing is a gerry-mandered, personalities-dependent situation.

4. From Background to Foreground: The Emergence of Semiotics

Around the middle of the 20th century, along comes semiotics. As a thematic idea, semiotics has never been generalized in intellectual culture prior to this time, though there have of course been anticipations here and there. Semiotics is the only inherently interdisciplinary perspective that there is.

And why is that? Because the action of signs, which is what semiotics studies, its “subject matter”, turns out to provide the basis for the whole of human knowledge, from its animal beginnings in sensation to its farthest reaches in intellectual controversies about God, religion, angels, or whatever.

4.1 Clearing some underbrush on the contemporary scene

The tricky part, of course, is getting right about what is the action of signs. There is a kind of myth, widespread, probably shared by many of my contemporary readers of this essay, that semiotics in the 20th century has been a contest between Saussure’s dyadic notion of sign (the interplay of signifiant and signifié) and Peirce’s triadic notion of sign, under these two names: “semiology” and “semiotics”; and these two names are basically synonyms—it’s just a matter of choice or preference.

That picture—glossing over, as it does, the crucial fact that Saussure bases his notion on a stipulation, whereas Peirce derives his rather from a critical analysis of our experience of signification—is so wrong, so false, that it is the reason for my essay (Deely, 2010b) on Semiotics Seen Synchronically.

Now, parenthetically, let me explain to you what I mean by “synchronically”. Diachronic is across time: the universe from its beginnings until now and on into the future. The synchronic view is much more limited. It embraces only the lifetime of the individual, the lifetime of each of us. That is our “synchrony”. So ask yourself when you first came into existence, or at least when you were born, then ask yourself when you will die, and you will have what I mean by synchrony. The diachrony of the universe precedes and succeeds you; your synchrony only overlaps that part of the universe’s diachrony which constitutes your lifetime—the “distance” between your birth and your death: that’s what I mean by synchrony. We overlap in our synchronies, but only some of us: whoever was born too early or will be born too late will have no genuine overlap with our
synchrony, even though they may read our writings, say, or “hear stories” about us.

Thus semiotics seen synchronically is semiotics as it appears from within the lifetime of my contemporary readers of this essay (readers whose synchrony overlaps my own), and further (since the book is a product of my authorship), some others now among the dead whose lifetimes (or “synchrony”) overlapped with my own. Some entered on the “scene of the living” earlier, and some later, and all of us are bound to pass out of it. But in the meantime, we here have an overlapping synchrony.\textsuperscript{16}

This action of signs, this subject matter of semiotic inquiry—what is it? In what does it consist? One of the three greatest philosophers of the 20\textsuperscript{th} century, Jacques Maritain (18 November 1882–1974 April 19),\textsuperscript{17} observed that all animals make use of signs, but only human animals know that there are signs. Now how is that? Because the other-than-human terrestrial “animals make use of signs without perceiving the relation of signification” (Maritain, 1957, p. 53; cf. Peirce, 1905, CP 5.534).

4.2 Tracing the background threads

If we go back in the history of philosophy to its original Greek period, we find that the only “signs” recognized are what we would today call “natural signs”—smoke indicating something’s burning, clouds of a certain sort portending rain, milk in a woman’s breast indicating childbearing, and so on: natural signs.\textsuperscript{18}

Then Augustine comes along (13 November 354 – 430 August 28), ignorant of Greek, and so having no way to realize he is making a revolutionary proposal. He proposes that a sign is anything which, besides making an impression upon the sense, directs attention to something besides itself. So you have easy cases of sign-action which have nothing to do with nature, such as that red octagon which tells the driver to stop or the green light which tells the driver to go, and so on. Then somewhere around the time of Thomas Aquinas, beginning perhaps with Roger Bacon (c.1214/20–1292), an observation is introduced that Descartes should have paid attention to. What about the idea of a camel? Does that not bring into awareness something other than itself? A camel is not an idea, and a camel is not to be found in my head. Yet does not this idea in my head direct my attention to another than itself, every bit as much as smoke directs my attention to something burning?

So with Augustine began an interesting development (the “protosemiotic development”, I have called it: Deely, 2009b), one that quite overturns the “standard picture” from the 20\textsuperscript{th} century of philosophy’s Latin or “medieval” development as concluding with William of Ockham in the mid-14\textsuperscript{th} century, then going off into the Renaissance with the Latin’s recovery at last of Plato from the Greek.\textsuperscript{19} Yet in the university mainstream of Latin thought, that “blackhole” in the Scholastic development between Ockham and Descartes,\textsuperscript{20} is precisely the period in which comes to maturity the original florescence of semiotic consciousness. That first or “protosemiotic” development of semiotics culminates in the Treatise on Signs of John Poinsot, the first thinker, as it turns out, really to demonstrate that a sign formally consists in an irreducibly triadic relation. Today, nearly everyone attributes that insight to Peirce, but that is because of
ignorance (for details on this point, see Deely, 2014, p. 260), an ignorance that has arisen in consequence of the moderns’ embrace of the maxim laid down by Descartes in 1631 to “Beware of reading the Latins!” No one to speak of among the mainstream moderns reads those Latin scholastic authors between Ockham and Descartes! Come on! Quine (1908–2000)? Wittgenstein (1889–1951)? Davidson (1917–2003)? Derrida (1930–2004)? Rorty (1931–2007)?

Yet we can hope that ignorance and ignoral cannot win in the long run. Thanks in no small part to semiotics, those neglected authors now are indeed beginning to be re-read, as they were by Peirce, “First of the Postmoderns” (Deely, 2001b, p. 611, 614). Thus it is not mere coincidence that Charles Peirce was the first of the later moderns to go back indeed and read those scholastics from the neglected late Latin mainstream, where he got some of his most basic ideas concerning a prospective “doctrine of signs” (Beuchot & Deely, 1995). In particular, he familiarized himself with the Conimbricenses, the college teachers of John Poinsot, whose work De Signis (1606/7) never appeared outside the Latin language until the first year of the present century, in the bilingual edition prepared by Jack Doyle (2001). In this work we find first proposed the thesis adopted by Peirce that “all thought is in signs”, even as we will find in their student Poinsot the first demonstration of triadic relation as the being formally proper to and constitutive of sign vehicles — i.e, that which makes the things we see and point to as “signs” actually to be vehicles of signification. So this notion of sign as consisting in an irreducibly triadic relation, commonly (for now) attributed to Peirce, actually goes back to the early 17th century. Poinsot was a thinker who could have met Galileo and Descartes, the way that you and I could meet “synchronously”, i.e., in an overlap of our lifetimes.

4.3 The semiotic challenge to the Enlightenment view of science: Ideoscopy’s dependence upon cenoscopy—not as “foundation” so much as “framework”

Another result of the fiasco of that abuse of civil and religious authority in the 17th century which we touched on above in considering “the Galileo affair” was that the notion of science in the modern development came to be viewed exclusively in terms of the things that can be seen and touched. Such was the “Enlightenment view” of science, as we mentioned above, that “dream of reason” that brick by brick we are going to be able to replace the whole foundations and edifice of human understanding, that whole of which was not really knowledge developed prior to the advent of experimental science which was not really knowledge; the view that eventually we will be able to rebuild on experimental “scientific” grounds the whole edifice. This was Descartes’ idea, this was Kant’s idea, this was the basic idea of modernity’s mainstream development in philosophy.

Only gradually did the advanced (and advancing) thinkers begin to realize that we have a problem here, because if all the knowledge that we acquire simply by reason of having the animal body that we do has no scientific validity, then science itself could have no validity; because the development of science itself—the invention, use, development, and reading of instruments, for example—depends upon that “prescientific” or, as I prefer
to say, cenoscopic phase which by no means ends once modern science has begun.

Peirce (1839–1914) appropriates from Jeremy Bentham (1748–1832) this distinction between what I am calling cenoscopic and ideoscopic science. The former is, as remarked above, the critical control of objectification that takes place without (or “prior to”) the use of instruments. The latter is that same critical control of objectification but now enhanced by the use of instruments, experiments, and the mathematization of results. Then, having introduced this distinction within “science” as cenoscopic vis-à-vis ideoscopic, Peirce points out that semiotics not only belongs to cenoscopic vis-à-vis ideoscopic science, but does so as providing the framework within which ideoscopic science becomes in the first place possible!

5. Where We Find Ourselves in the Early 21st Century

So then, three things: first, semiotics studies an action in nature presupposed to the very emergence of finite awareness in animals; second, as a result semiotics studies what is presupposed to the very possibility of science in the modern sense, ideoscopic science; third, semiotics belongs to an understanding of science which extends the framework of knowledge as critically controlled objectifications beyond the purview of the Enlightenment idea of science, to include objects of consideration which admit of no direct sensible instantiation—most notably, in the present case, relations themselves in their suprasubjective being in contrast with related objects and things.

What the action of signs turns out to consist in is the creation of relations irreducibly triadic. And here we come to not so much the problem as the stunning point of what I have called (Deely, 2016) “uninstantiability”. If you ask me what is a glass? I can place one in front of you and say “This”. If you ask me, what is a book, I can answer in the same way, beginning by providing an instance you can see with your own eyes and take in your own hands, and so on.

But now ask me, “What is a relation?” There is nothing you can directly present to sight and touch and say “Here is a relation, this thing right here”, which I then hold up before you in one hand while pointing to it with a finger of the other hand.

Take the notion of subjectivity, very important for modern philosophy, in fact the whole story of modern philosophy. What is subjectivity? Subjectivity is everything that separates you, or me, from one another and from the rest of the universe. Where your body stops and the rest of the universe begins, that is the boundary of your subjectivity.

A relation, by contrast with subjectivity as boundaried separations, is suprasubjective: something that is over and above subjectivity, uniting or “linking” one thing to something which is “other”; and relation does so in some measure (though not completely)—i.e., inasmuch as the formal being of relation in the singularity of its suprasubjectivity transcends the distinction between ens reale and ens rationis, between what is and what is not independent of finite awareness—indeed of that complex whole of physical subjectivities making up what we call the universe as “ens reale”.

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This question has a long and difficult history throughout philosophy, but you can find out (by reading Weinberg, 1965, among others) that Hobbes (1588 – 1679), Locke (1632 – 1704), Berkeley (1685 – 1753), Hume (1711 – 1776), Descartes (1596 – 1650), Spinoza (1632 – 1677), Leibniz (1646 – 1716), Kant (1724 – 1804)—all of the mainstream modern founders—agreed that the one who had the theory of relation correct was William of Ockham (c. 1285 – c. 1349) in holding that relations formally result from and within our awareness alone, outside of and apart from which there exist only individual things, “subjectivities”. For Ockham’s idea was that there is no such thing as relation except in comparisons that the mind makes between and among objects of awareness. When I recognize two things as similar, for instance, that recognition is precisely and all that the “relation” consists in over and above the objects compared. Apart from that activity of the mind there is no such thing as relation, no relation as ens reale in the Latins’ sense of that term as labeling the awareness-independent dimension and aspects of finite being.

5.1 Re-viewing philosophy’s larger history
Let us go back before Ockham, to Aristotle (384 – 322 BC). He starts out with the notion of “being”, τὸ ὄν: that’s what he was interested in studying, that’s what his philosophy was all about. By the time you get to the early Latin period, say, after Boethius (c. 480 – 524 AD), the Latins have a further distinction within being between ens reale and ens rationis. As a thematic idea, there is no counterpart in Greek philosophy for ens rationis, as ens reale is the Latin counterpart, the “etymological equivalent”, for Aristotle’s thematic τὸ ὄν. The Greeks of course knew there were such things as lies and myths and fables; but when Aristotle was interested in “being”, he was interested in what the Latins later called ens reale.

Now how do you translate, accurately, this expression “ens reale”? Not the obvious way, as “real being”. That translation gets you nowhere. In fact, it tends to lead you to a dead end. What the Latins meant by ensreale was that there are features of the universe which are what they are independently of whether we are aware of them or not; so “being as independent of awareness by a finite mind”. And what they meant by ens rationis was that there are for all animals features of objects experienced that are reducible to socially constructed realities, relations created in and by awareness, yes, but terminating first of all not in the animals awareness but in the physical surroundings related now to the animal as interpreted objectively to constitute features of the physical surroundings to be sought (+), avoided (–), or safely ignored (0).

For signs as modalities in ens reale, on one hand, and ens rationis, on the other, take the simple example of smoke as a sign of something burning, on the one hand, and a flag as a sign of a country on the other hand. If all human beings were to die, the cloth out of which the flag is made could remain as a physical reality, but it would no longer be here and now a sign of a country even when perceived by some other terrestrial animal; but smoke would still be a sign here and now of something burning for any experienced terrestrial animal perceiving it here and now. The socially constructed reality has a
dimension of physical being, *ens reale*, yes (e.g., the cloth of the flag); but what a socially constructed reality is as an object does not *reduce* to that physical dimension. In the case of smoke as a natural reality, its physical dimension as indicating something burning can also be the whole of even its objective being. Not so in the case of the flag.

The interesting point, concerning this example of *ens reale* vis-à-vis *ens rationis*, is that modern philosophy came to conclude that *ens reale* (beings as they exist in their own right apart from our finite awareness) is something unknowable: what we see burning and what is burning apart from our seeing are never the same thing for a truly modern epistemology (see the treatment in Deely, 2009e, 2013). The moderns placed the *ens reale* of the Latins, the τὸ ὄν of Aristotle “under erasure” (in Derrida’s terms). This conclusion becomes the locus of Kant’s *Ding-an-sich*, the “unknowable”, on the side of sense-perception, as also the “unknowable” *Noumenon* on the side of intellection. In the 20th century attempt to restore the “realism” of Thomas Aquinas, the aim was to show that *ens reale* is indeed knowable. But from modern philosophy even the Neothomists should at least have learned this much, that socially constructed reality today (in contrast to ancient Greek or early Latin societies, where “nature” loomed much more dominantly than it does in everyday city life now) plays in the human experience of “everyday life” a much larger part than do realities which are wholly independent of social construction. And the Thomists—the Neothomists, to be more exact (I know quite a few of them)—simply assumed in general that when St Thomas spoke of “being as that which is first known by the human intellect” he meant simply *ens reale* (a false assumption), whereas by *ens rationis* is meant basically what the moderns call “psychological subjectivity” (which is also a false assumption).

What Aquinas meant by “being” as the “first object” of the species-specifically human dimension of awareness was the intellectual perception of objects in relation to themselves as having a constitution which is what it is regardless of our animal sense perception of those same objects in relation to ourselves as something to be sought (+), avoided (−), or safely ignored (0). Thus the human animal is the first animal to achieve an awareness of things *not only* as +, −, and 0 “objects”, but *further* as “things” which have a dimension proper to themselves which, it then turns out, *sometimes* reduces to our awareness of it (*ens rationis*, a purely objective dimension of being) and *sometimes* does not reduce to our awareness of it (*ens reale*, which, even as known, retains a subjective dimension proper to its objectivity and yet independent of it). Reality as socially constructed, of course, is a combination or objective “weaving” of relations from both orders to make up the *one fabric* of animal experience—pure *Umwelt* in the case of the alloanimals (physical environment partially experienced and interpreted becomes objective world); or *Umwelt* become *Lebenswelt* (objective world becomes world of things) in the case of the species-specifically human animals.30

### 5.2 Sensation prescissively considered in its contrast with perception and intellection

Let us put it this way. Depending upon the kind of body you have—if you’re a caterpillar,
if you’re a worm, if you’re a butterfly, if you’re a deer, if you’re an alligator, if you’re a human being—you become aware in sensation (prescissively considered) of certain parts of the environment, and there is no mental representation directly involved at that foundational level. That sentire awareness—prescissively taken, bear in mind, for it is never experienced thus independently—is simply the result of the action of the surrounding sensible bodies on the sense power(s) of the animal body, resultantia actionis sensibilis in sensu. However, if you’re an animal that has to move around in the environment to find its food and shelter, etc., this bare “sensory awareness”, this partial, initial “self-representation” of our immediate surroundings via sensation is not enough.

5.3 The reason for “ideas” in the first place
You need to interpret the aspects of your surroundings that your body makes you aware of. And that interpretation (not the bare sensations now, but rather the sense-perception encompassing while going beyond the sensations) is indeed the result of mental representations, “ideas”: but not ideas as objects (self-representations, which ideas never are in direct awareness, pace Descartes and Locke); rather, we encounter here the effect or result of ideas as other-representations, i.e., modes of subjectivity proving relations terminating suprasubjectively in the subjectively sensed but objectively experienced environment as interpreted—“constructed”, if you like, but suprasubjectively—as a complex of objects initially evaluated as +, –, or 0 in character.

This is the point completely missed by Descartes in founding modern Rationalism, as by Locke in founding modern Empiricism: these psychological or cognitive states of our subjectivity that we call “ideas” interpreting objectively the animal’s surroundings are not self-representations (objects) but other-representations (signs). Ideas thus found relations as suprasubjectively provenated, but objects as interpretively structured exist then only dependently upon these relations directly (upon the founding ideas only indirectly) and as terminus thereof. The terminus of the relation to which an idea gives rise is thus a self-representation, an object; but the idea itself is an other-representation necessarily giving rise by reason of provenating a relation to something other than itself, which “other” alone (not the idea) is directly known. In fact Poinsot, in opening his Treatise on Signs, will distinguish between 1. a thing, which is what it is regardless of any relation to a finite knower, and hence may or may not be (depending wholly upon circumstance) an object; 2. an object which exists as such only in terminating as a self-representation a relation to a finite knower; and 3. a sign in Peirce’s sense of a sign-vehicle or representamen which exists only as representing something other than itself to a third, i.e., as formally constituted by a triadic relation.

So the concept, the “idea”, which the animal introduces or forms psychologically in order to interpret its surroundings, structures those surroundings, rightly or wrongly, as objects good for me (+), bad for me (–), or indifferent to my concerns (0). That’s the Umwelt, the world as meaningful to animals generically considered, or specifically in a given case (e.g., what’s + for the bat is – for the moth, and so on). The body is like an AM
radio: it can only pick up AM signals, even though there are many other types of signal at work physically here and now. For a termite, wood can be a delicacy; for a human, wood is no food at all. Why? Different type of body. End of story.

So you get “mental representations”, ideas or concepts if you like, formed in the psychological subjectivity of all animals; but the concepts formed by animals other than human concern only the interpretive structuring as +, −, 0 of the objectified physical surroundings; and if the animal “gets it wrong” in its perception, i.e., in the interpretive phase, it pays the price of sickness or injury or death. The case of the human animal is also like that, but the intelligere phase adds to phantasiari yet another level of concept-formation, interpreting the +, −, 0 objects further as “things” in their own right regardless of their +, −, and 0 relations to my kind of animal, that is, to me as a human animal. However, the human animal and only the human animal, by reason of its species-specifically unique ability to deal with uninstantiable features of ens reale (and ens rationis) adds to the objects of its awareness the “logical” relation of self-identity, whereby the object is seen as “being a thing” regardless of my self-interested evaluation of it (mistaken or not) as +, −, or 0. Thus Aquinas remarks that the first distinction that the human animal makes under the notion of “being as first known” is a difference between what exists purely objectively, i.e., ens rationis, and what exists subjectively as well as objectively, i.e., ens reale as part of the surrounding of which I am aware — a feature of “reality”, something of the subjective order (including intersubjective relations) not merely knowable but actually known.

5.4 Objectivity in contrast with even when inclusive of physical existence
Whatever you come to know, thus, comes to exist as the terminus of a relation involving your finite mind. That is what it means to exist “objectively”, contemporary common usage sedimented down from the philosophical theorizing of the early moderns notwithstanding (Deely, 2009c). But not everything you come to know also exists physically as well as objectively. Consider the boundary between any two states. How does it exist? For that matter, how does the Presidency of the United States exist? Again we find ourselves smack in the middle of the problem of relation, relation as a reality that admits of no direct instantiation for sense, neither in itself (always) nor (but only sometimes) in its objective terminus. You can point to a particular man as the President and say “There is the President”. But what makes him President? You strap him down on the operating table and cut him apart, finding here his heart, there his lungs, there his liver. But where is his Presidency? What makes him a President, let alone the President of the United States?

Relations as such are uninstantiable, yet the ability of the human animal to know intellectually, whether preconsciously only or actually consciously in an explicit awareness as well, relations in their difference from related objects and things manifests the possession or presence of a cognitive power able to grasp objects which cannot be reduced to sensible instantiations, related or not. Here precisely is where you get the
difference between *intelligere*, human understanding as species-specifically human, and *phantasiari*, the conceptual estimations within sense-perception common to all animals.

5.5 The point at which intellection differs from perception

For all animals knowledge begins in sensation. Then that sensation is interpreted. And the interpretation initially goes back to what is or can be sensibly instantiated. For brute animals that is the end of the story. For human animals the story of objectification also *goes* there but does not *end* there. Because human understanding goes beyond objects as sense-perceptible to grasp also objects and aspects of objects which neither are nor can be reducible to any direct sensible instantiation, human understanding is able in linguistic communication to fashion relations and hence termini of relations which are in effect a “glass ceiling” beyond which bare animal estimation cannot pass. Thus “language” in the species-specifically human sense of linguistic communication depends upon and consists precisely in the manipulation of *relations* in their difference from related things and in their transcendence of the *ens realis/ens rationis* contrast. Deception is possible without such direct manipulation of relations, merely by the manipulation of related things objectified; but *lying* is not. For deception, manipulation of sensible objects and aspects of objects suffices. For lying, what is *known* to be a fiction must be *presented linguistically* as *ens realis*. (And for the lie to succeed, the one lied to must accept the object presented in language as having more than a purely objective being! Every deceit requires at least one deceived!)

You step outside the main train station in Helsinki Finland, and off to the right there is a huge statue of a man on a horse. A dog or a bird can see that statue just as well as you can. You can ask of almost any citizen the identity of that statue, and they will tell you “That’s Mannerheim”. “Well who was Mannerheim?”, and you will get your first lesson in the history of Finland. You need *linguistic* communication to access that information, that form of communication which is species-specifically human, which only human animals can reciprocally engage in, precisely because linguistic communication involves a direct awareness of relations objectified in their intangible suprasubjective difference from related objects and things, even while and when presenting those very objects and things within awareness (see in particular the discussion in Deely, 1980, “The nonverbal Inlay in linguistic communication”).

Tom Sebeok, in the course of a 1984 lecture he was giving at the University of Toronto, remarked in passing that “When people hear the term ‘language’ they immediately think of communication. But language in its root sense has nothing to do with communication”; then he went on with his lecture. In the question period, the first questioner asked “Why did you say that language has nothing to do with communication?” “Because it doesn’t”, Tom replied curtly. “Next question.”

Three years seemed to be the average time it took Sebeok’s new ideas to achieve their full form. It turned out that the point he was making in this case was that, while every animal has a modeling system which forms an Innenwelt species-specifically as the
basis for its Umwelt, or “meaningful world”, this Innenwelt in the human animal alone is biologically underdetermined. Because of its ability to deal with relations as such the human animal can think of things that cannot be directly, but only indirectly, reduced to sensible instantiation.

The founders of the United States, for example, gathered around a table and asked “Can’t we find a way to form a government that isn’t based on biology or inheritance? We don’t want a government based on kingship. Can’t we find a way to minimize the problems that we see in all existing forms of government heretofore?” Then they came up with their separation of powers and popular elections, the Presidency, and Congress and all that. Not that the new government proved without flaws of its own. But my point is, how does this “new government” exist? It exists above all as a set of relations, which circumstances alone render rationis (the planning stage) or realis (the execution or implementation phase).

The case may be compared to the farmer who buys a plot of land to grow wheat, only to have the nearby river overflow his fields. “For crying out loud”, the farmer says. “We’re not trying to grow rice”; and he tries to figure out an irrigation system, forming a set of relations existing actually only within his awareness as planning. Then he transfers those awareness-dependent relations into the physical environment of the river and field precisely by manipulating the subjective features (the physical environmental features, the entia realia) of the land. The next time the river overflows, the system of irrigation more or less well contains the potential flood situation, leading to further considerations of how the relations might be improved to the end of growing wheat rather than rice, etc.

5.6 From Umwelt to Lebenswelt: The linguistic exaptation of human understanding

This ability to deal directly with relations in the order of objective being — being as we are aware of it, suprasubjective always, intersubjective as well only sometimes — then to communicate the resulting pattern linguistically to other human animals, Sebeok (as noted earlier) will point out, is not an adaptation but an exaptation. Language in the root sense is not communication, but is rather this underlying biologically undetermined Innenwelt or ‘modeling system’ specific to human animals. As with all animals, the Innenwelt is part of the subjectivity of the human animal. But this Innenwelt founds or “provenates” relations terminating suprasubjectively in the world of objects as making the environment meaningful for the given animal. This resulting “meaningful surroundings” is the Umwelt or objective world. This “world” is always public in principle, because relations in every case have a reality and positive being that is over and above the subjectivity of the animal upon which (upon whose Innenwelt) are founded the relations terminating at objects. These objects perforce involve (by reason of sensation in its prescissive difference from perception) something of the physical environment but never simply reduce to the physical environment.

Thus, when ideas are formed in the mind, they differ as psychological states from simply physiological states. Unlike the latter, the psychological states cannot exist
without provenating relations whose terms exist objectively, whether or not those termini as objects also here and now exist with a subjective dimension, i.e., in the order of that part of physical being (to wit, ens reale) which has intruded into awareness. Physical states, by contrast, give rise to relations as suprasubjective only when those relations are intersubjective in fact as well as suprasubjective in principle, i.e., when terminus of the relation along with the foundation of the relation has a subjective dimension. But psychological states give rise to relations as suprasubjective whether or not the terminus of the relation has here and now a subjective dimension. So when ideas are formed in the mind as subjective qualities modificative of the knower, “objects” also arise as suprasubjectively terminating that awareness at something “other”, something that does not reduce to the subjective order neither on the side of the one knowing (Innenwelt) nor on the side of the object known (Umwelt).

We see in this way that the circumstance where a triadic relation arises is where semiosis begins. But what makes this beginning possible in the first place is the singularity of relation as able to retain its positive character as suprasubjective even when its terminus fails to exist subjectively (i.e., in the subjective order of the physical surroundings as physical, ens reale). This guy Poinsoit points out, regarding the sense of sight, for example, that if there is no light we don’t see anything. But where there is light the differentiation of that light which we call “color” is determined both by the surface off which the light refracts and by the physiological structure of our eye. The same light refracted from that wall appears to most human animals (assuming, that is, no “color blindness” by reason of ocular defect) as beige, refracted from that board appears black, refracted from this pad appears yellow, and so forth. You can’t see color, however, in common experience, without seeing also, simultaneously, shapes, movements, positions, postures. Yet although temporally simultaneous, the seeing of shapes and positions etc. is logically dependent on the logically prior seeing of the colors. The shapes, movements, and positions may change, but if the color is removed nothing at all remains as “seen”. (That is what the scholastics called the “formal object”, the objective aspect first attained and apart from which nothing is attained at all. This realization in turn becomes the basis for determining how many cognitive powers there are—there are as many cognitive powers as there are distinct formal objects attained in awareness: five basic ones in external sense, but as we move into ideoscopic considerations we find that the sense of “touch”, for example, differentiates indefinitely further, as is examined notably in Jesper Hoffmeyer’s 2008 masterpiece on Biosemiotics.)

Considering only the traditional list of so-called “external senses” (seeing, hearing, smell, taste, touch), the awareness achieved thereby has to be co-ordinated and passed up to the “internal senses”. This work of co-ordination and transfer defines the formal object of the so-called sensus communis (the co-ordinating transitional sense mediating between sensation and perception), the sense-power transitional to the animal Innenwelt’s forming of “ideas” or “concepts” (the mental other-representations providing the interpretation of the nascent objectification of the animal’s surroundings provided by sensation here and
now).

Over and above such co-ordination—precisely here begins “phantasiari”, the
generically animal formation of concepts—the imagination steps in to see the features
of the sensed world but as differently arranged than the way they are here and now
given by sense; the memory recognizes the features of the world as having or not having
been encountered before; and you have the animal estimation which decides what to do
about these objects within its awareness. And then you have in the human case alone
the intellect, which begins with the formation of a concept that presents these very same
estimable objects of perception now under the further and distinctive formal aspect of
“being”, i.e., as involving a dimension of objectivity that does not reduce to the status of
objects as +, –, or 0.

A distinct cognitive power is required to see objects (regardless of what they are to
my self-interest as +, –, or 0) as something that can be investigated in their own right to
determine their own subjective constitution as part or not of the physical universe of ens reale. And when I undertake that investigation I find that the first contrast within “being”
occurs, as we saw above, between purely objective being in contrast to the awareness-independent aspects of objectivity (both subjective and intersubjective) with which the
physical sciences, the “hard sciences”, concern themselves.

5.7 How semiosis is foundational for all awareness: The “formal being of signs”

Now you have a way of explaining socially constructed reality as both objective and
what comes to the same thing) public in principle, despite its component of non-being (its
“purely objective elements”). You are now in a position to see that all reality of whatever
sort, insofar as it becomes part of our awareness(whatever is known, regardless of its
subjective status or lack thereof in the surroundings as physical) is the result or product
of the action of signs, whereby one thing presents another than itself to or for a third—the
“third” being us, in the case of human awareness. Indeed, thereby is achieved the vantage
point whence, as I have examined elsewhere at some length (Deely, 2009c, 2009d,
2010d), we realize that to speak of “objects” or “objectivity” is but a disguised and often
misleading way to speak of signicates or signification.

The sign, or rather, what we commonly call a sign, the things we can see and point
to, such as that “Exit” sign over there, and the like, are the vehicles of signification but
not really signs formally speaking, inasmuch as what makes us call those material objects
“signs” is the fact that they happen for us here and now to occupy the foreground position
of representing something other than themselves to or for us as thirds. If you take away
that relation, the so-called “sign” reduces to a mere material object; and if you take away
the senses, that material object remains only now as reduced to the status of a physical
thing that someone could become aware of but is not now aware of.

Not only that, but what is a sign by virtue of occupying the foreground position in
one triadic relation could be in the “object” (the significate or signified) position under
another triadic relation, and in the interpretant position in yet another triadic relation.
So you have not only semiosis, whereby what is known comes to be known, but also a spiral of semiosis. Within this spiral objects blossom into signs and symbols grow as the human spider spins its growing web of experience in the interweave of *relationes reales* with *relationes rationis*, of awareness-independent and awareness-dependent relations together suprasubjectively sustaining the “meaningful world” of objects — interpretively perceived in the case of all animals, further also partially understood in the case of human animals — within which the animal, human or otherwise, lives, moves, and has its being.

5.8 The challenge of semiotics in the modern academy: Crossing the boundary to postmodernity

This is where the traditional modern academician, whose whole life is built upon specialization, comes to feel threatened by the entry of semiotics upon the intellectual scene. They see semiotics as “imperialistic”, respecting no boundaries, going everywhere—which indeed is the case, since only through semiosis do the “boundaries” of specializations within academia come to be established in the first place. Thus semiotics, as one of my students put it, “studies what all the specialized disciplines take for granted” (Taylor, 2008). Or, as one of my favorite semioticians, Claus Emmeche (1994, p.126) in Denmark puts it, semiotics studies the whole of nature, including culture, indeed, but including also those realms beyond culture where humans have never set foot.

Semiotics is the final elimination of the *ne plus ultra* of Kant and modern philosophy with its “epistemology”. The coming of semiotics marks the passage from modern to genuinely and positively postmodern intellectual culture, wherein is recovered and “retrieved”, in the Heideggerian sense, the whole heritage of ancient Greek and medieval Latin philosophy as well. Whereas students of Descartes’ time were often enough better off to “not read the Scholastics” lest they be infected by their errors, students of semiotics today might be better off to “not read the moderns”, given their near-complete want of the essential historical character of truly semiotic consciousness.

Semiotics is a “new beginning”, as was the epistemology of Descartes and Locke synthesized in Kant, but now a “new beginning” wherein modernity reduces to an image in the rear-view mirror. Semiotics is not just one more “specialization”. Semiotics is rather, as Sebeok said, an *enhancing discipline* where specialists come to see the process that is common to intellectual culture as a whole in its species-specific uniqueness.

Thus semiotics begins as a remedy for the specializations of modern science, on the sociological side; but so also does semiotics begin beyond—by establishing the limits of—what came to be called “epistemology” in modernity. The “epistemology” of modernity is a dead-end, for, as Sebeok liked to say, it provides no more than a mid-most target for semiotics.

Let me say just one last thing. I was in Sweden some time ago for a conference, and a professor there whose name I wish I had caught remarked that semiosis in nature and in culture seems to provide the only means we have really for explaining how you can get “something more” from “nothing but”: semiosis is at the heart of evolution throughout...
our universe from its beginning.

6. Rumination in Conclusion: How in General “Something More” Emerges From “Nothing but”

The main dispute within semiotics today, where I am temporarily in the minority position, concerns whether the action of signs extends beyond the boundaries of the world of living things. I think that semiosis—by the step-by-step creation of that “scaffolding” (to borrow Hoffmeyer’s fertile term (2007; cf. a)) which moved the universe closer and closer to the possibility of living things, and then across that frontier to the world of actual living things—provides the “missing link” in our understanding of evolution as a whole, the process by which the whole of the cosmos has been moved from “nothing but” lifeless atoms to “something more”. Perhaps semiosis is indeed the proper name for what has heretofore been called “evolution”! For the causality of signs is the only causality which is able to function even where some of what is involved may not even exist — as in my story of the bank-robber who makes his escape by placing a sign on the left fork of a road disappearing into a forest, whose right fork disappears over a hill, a sign which says “Bridge Out”, leading the pursuing police to take the right fork, whereas the robber succeeding to make the stolen money his own has taken the left fork down a road where in fact there is no bridge, let alone a bridge in need of repair.

The universe as we know it started out not only lifeless but even incapable of supporting life. Yet the universe has moved from that “nothing but” situation to “something more”—to a universe not only capable of sustaining life but actually sustaining life. For this development a scaffolding had to be created—first star systems, then planetary systems, and so on. Each stage in the creation of that scaffolding, I think, involves a virtual semiosis, a vis a prospecto, a momentary achievement of a “Thirdness” making life more and more “possible” and, finally, “actual”—like the pathetic smoker whose matches are damp, requiring ten or fifteen tries before finally the cigarette lights, and semiosis passes from an intermittent scaffolding effect to a conflagration wherein the main “scaffolding” now concerns the biosemiosis of living creatures.

Notes

1 E.g., Richard Watson (2002, pp. 32 [from Deely 2008: 7n9]) observes that “Catholic commentators say Descartes would have been perfectly safe living and publishing in France. But the Parliament of Paris passed a decree in 1642 forbidding attacks on Aristotle on pain of death. Descartes trivialized Aristotelian logic and argued that Aristotelian physics was false. Vanini had been burned alive in 1619 [February 9] for giving natural explanations of miracles—one of the advantages Descartes claimed for Cartesian physics—and more than a dozen heretics were burned alive in France during Descartes’s lifetime. What is more, Descartes was making fun of astrology” at the very time that so-called “official astrologists” were seeking to influence decisions of state under Cardinal Richelieu. For an overview, see Lire et Écrire l’Avenir.
2 Besides what Maritain (1970, pp. 209-210 in the 1977 English trans.) calls the “error in principle” of holding “the science of phenomena in its own development to be subject to theology and to a literal interpretation of Scripture”, recalling the “semiotic spiral” (e.g., Deely, 2001a; 2009b, pp. 208-211; et alibi), we know that the proper basis for the development of human understanding involves the triadic movement (1) from things to ideas in the first place [abduction], (2) from ideas to their consequences [deduction], and (3) the crucial testing of the developed ideas against further experience, i.e., from ideas to things, as it were [retroduction, as I think is the most proper term to use here]. However, the Scholastics of the closing Latin centuries, with few major exceptions (notably John Poinsot [1589 – 1644], last and greatest of the developers of the line of Albert and Aquinas), came to consider (2), deduction from existing texts (“books of men”), as if it were a final instead of intermediate step. They failed to realize the importance of (3), retroduction, or the further testing of developed ideas against new discoveries—an importance which of course would be all the greater as instruments and systematic experiments came into play. Medieval Scholasticism in its late developments, in effect, made stage (2) the be-all and end-all of human thought in theology and philosophy, which is precisely what led to its 17th century “crash and burn”, as I have described it (in Deely, 2010a: Chap. 11).

3 A sample listing of such “sacred texts” on this point is provided in Chap. 11 of Deely (2001), Science Comes of Age, p. 494n11.

4 Note that the very same cenoscopic observations which led to the belief that the sun revolves around the earth led also to the belief that the moon revolves around the earth. Idioscopy has confirmed the latter belief, while discrediting only the former: a good example of why the boundary between cenosity and idioscopy is malleable rather than fixed!

5 Exactly why Peirce, in distinguishing between cenoscopic and idioscopic science, firmly locates semiotics as cenoscopy above all (See, e.g., Peirce, 1908, CP 8. pp. 342-343). My change of Peirce’s spelling (“ideoscopic” rather than “idioscopic”) is a complex etymological question.

6 The very type of defensive conservatism that saw to it, as Fantoli demonstrates (2012, pp. 233-247), “that the final result” of Pope John Paul II’s “Galilean and Copernican commission” established in 1981 “did not correspond to what he had wished for in his discourse of 1979”, owing especially to Cardinal Poupard’s concern “of saving the decorum of the Church”.

7 Fantoli (2012, p. 210): “…the qualifiers of the Holy Office…neither in 1616 [the condemnation of Copernicus’ work] nor in 1633 [the Galileo condemnation] was any consideration given to the question [of] proofs for heliocentrism. In their blind adhesion [now in 1633 fully endorsed by Pope Urban VIII]…any such proof was excluded a-priori”.

8 For a full discussion of the terminology for the (1)-(2)-(3) steps resulting in the “semiotic spiral” of abductions giving rise to deductions leading to retroductions and further abductions, etc., however (see Deely, 2009b, p. 209n4).

9 See Poinsot (1632a), Logica Materialis, Ques. 27 “On the Unity and Distinction of the Sciences”, Art. 2 “Whether science is a simple single quality and habit”, 839a8–b10; discussed in Deely (2008, pp. 18-20), and Deely (2014).
10 Probably the best modern presentation of their point has been made by Gredt, 1924; developed in Deely, 2007a.


13 I wrote a book recently (Deely, 2007a) entitled *Intentionality and Semiotics* where I make the point that, starting from the notion of intentionality as originally introduced into 12th and 13th century Latin thought, and taking up *from that point* the action of signs, we find that everything in the modern period, from Descartes to Phenomenology and from Locke to Analytic philosophy, is — in effect — “fly-over country”. (A once-friend of mine who is a phenomenologist won’t speak to me since that book came out.)

14 Peirce, 1904, CP 8.332: “If the question were simply what we do mean by a sign, it might soon be resolved. But that is not the point. We are in the situation of a zoölogist who wants to know what ought to be the meaning of ‘fish’ in order to make fishes one of the great classes of vertebrates.”

15 So the “synchrony” of which I speak is not geometrical, not a-historical, nor opposed to diachrony, but is rather a *segment* or *slice* of the diachronic development of the universe as a whole in the partial embodiment of that development in a given individual. It is a *co-happening* in action over time, but with its own “beginning and end” within the larger development of which it temporarily forms (or, after our death, *formed*) a part.

16 And I project that it will take the university at least until 2075, perhaps longer, to figure out how to integrate semiotics into the curriculum. Today’s administrators and faculty haven’t a clue how to do it. And why? Because of the inherent interdisciplinarity of semiotics. Consider these remarks by Professor David Baulch, made on the occasion of the 13 April 2012 retirement gathering at the University of West Florida for Terry Prewitt, one of the pioneers of semiotics in the United States and a central figure in the development of the Semiotic Society of America. I suggest that these remarks tell us something about the future of university life, once semiotics has become assimilated to the curriculum and semioticians are no longer rare beasts: “It is easy to experience a university like UWF as a place where the various specializations of its faculty members render them mutually unintelligible to each other. How can we work together? We exist, as it were, like neighbors who have been enjoined to ‘respect each other’, but in absolute ignorance of any real sense of what it is that we are supposed to respect. By contrast, Terry Prewitt makes sense to me. From the very first time I spoke with Terry thirteen years ago, I’ve found in him someone with whom I share a bit of common ground. When I talk with Terry I’m speaking with someone I not only respect because I’m supposed to, but I’m speaking with someone I can actually talk about what I think about as a person and what I write about as a scholar. That’s a gift I’ve always been quietly grateful for. It has made UWF just a bit less of an alien world for me.” That is a general effect that I expect semiotics to have on academe “as time goes by”.

87
The other two being Charles Peirce (10 September 1839–1914 April 19) and Martin Heidegger (26 September 1889–1976 May 26, 1976).

Deely, 2001b, p. 215, note 9 & passim, relying on Manetti, 1993 (and now also 2013) along with Eco, Lambertini, Marmo, Tabarroni, 1986.

Cf. Deely (2001b), subtitled “the first postmodern survey of philosophy from ancient times to the turn of the 21st century; now further Deely (2010a): Medieval Philosophy Redefined.

It is a “black hole”, of course, not in the actual historical development itself, but in the standard late modern “scholarly treatments” of the Latin Age (see 1994, 2001b).

“There is nothing which leads to the knowledge of something else which may not be reduced to some species of sign” (“Initio illud statuimus nihil ducere incognitionemalterius quodinal iquamspeciemsigni nonreducatur”), Comimbricenses (1607), De Signis, Q. II, Art. 3, Sect. 3; 2001, Doyle trans., pp. 86 (Latin) and 87 (English).


See Bentham, 1816. On the thinking behind the change of spelling that I introduce in making “ideoscopy” synonymous with what Peirce and Bentham called “idioscopy”, I refer readers to the detailed discussion in Deely, 2014: 255-56.

This idea runs throughout his extensive works; I have cited here only his 1321 treatment of Aristotle’s categories.

For the original Greek texts and references where Aristotle determines that relation has indeed an ens reale status as a peculiar mode of òï ëï (see Deely, 1985, pp. 472-479, esp. 473nn112–114 for the Greek texts).

Hence the misleadingness of the expression “ens rationis”, “being of reason”; but that is a story of its own (see Poinsot, 1632b, First Preamble, Article 3, “By what powers and acts do awareness-dependent beings come about?”).

How that surviving cloth would appear upon its discovery by an extraterrestrial is a whole other matter, of course.

But not quite, contrary to common academic assumptions, is the “Ding an sich” the same as Kant’s “noumenon”: see Deely, 2001b, pp. 558-559, esp. 559n29.

It is another story, although one of the most important “stories” concerning the 20thcentury phenomenon of intellectual culture that we now call “semiotics”, that this notion of Umwelt comes to us from the work at Tartu University of the German-Estonian Jakob von Uexküll (8 September, 1864–1944 July 25), while the notion of an Umwelt as species-specifically called rather “Lebenswelt” is a coinage of my own that I derive indirectly from Edmund Husserl (cf. Spiegelberg 1965, Vol. 2, pp. 189-162) but directly (Deely, 2007b) from Thomas A. Sebeok’s integration of the work on the notion of “modeling system” at Tartu University of the Russian-Estonian Juri Lotman (28 February 1922–1993 October 28) with von Uexküll’s earlier Umwelt
work to establish the paradigm for the development now of *Biosemiotics*. The graduate program in semiotics developed at Tartu University today, particularly under the leadership of Kalevi Kull, stems directly from Sebeok’s combinatory vision of von Uexküll’s work of the early 20th century with Lotman’s late 20th century work as the main foundation or, rather, framework for semiotics’ development in the 21st century.

Sebeok pointed out that all animals communicate, but only human animals communicate *linguistically*. Now the communication that takes place among animals is often referred to as “language”—the language of birds, the language of chimpanzees, the language of dolphins, etc.; but Sebeok’s point was that the communication among other species of animals on this planet is zoösemiosis, not anthroposemiosis. Now there is a huge overlap within anthroposemiosis of zoösemiosis (which is why we can communicate, often rather well, with dogs, for example); but within anthroposemiosis alone there occurs this *exaptation* of language in the root sense (of the biologically underdetermined Innenwelt) to communicate to other humans something of this objectification occurring beyond the directly sensible instantiable; and it is this *exaptation* which gives rise to *linguistic communication*, in contrast to purely and reductively zoösemiotic communication via related sensible appearances alone.

So, if you equate “language” with “communication”, then animals other than human have “language” as well as do humans. But if you equate “language” with the exaptation of the results or “concepts” formed by a biologically underdetermined modeling system in the animal’s effort to interpret “the world”, then no animals on this planet other than human animals have “language”—i.e., communication by linguistic means. *This* communication can take place only between and among human animals: see Deely, 2007b and 2012.

We have to be consistent in our speaking of communication which is on the one hand generically animal and on the other hand species-specifically human. Thus in my book (Deely, 2010c) entitled *Semiotic Animal* the play is on the fact that “semiotics” is the knowledge that is acquired by the study of the action of signs, the action consisting in the creation of these triadic relations which cannot as such be detected by sense, but only the related material objects involved in the relations.

So in defining the human being as a “semiotic animal”, you are not only achieving what the earlier definitions achieved, namely, the separation from and elevation above the rest of earthly nature, but you are also showing what *ties human being in* with the rest of nature—something the older definitions, “rational animal” and “thinking thing”, alike failed to do. Those older definitions set the human being apart and above, and let it go at that; by contrast, the semiotic animal shows what sets the human animal apart and “above”, in a certain sense, but a sense which is so tied in with the rest of nature as to have the curious consequence of giving humans ethical responsibility for the whole planet, and that is the idea of “semioethics” (originally from Petrilli and Ponzio, 2003; see further Petrilli, 2004, 2008; and Deely, 2004, 2010c).

“Biologically undetermined” simply means an ability to objectify the surroundings in a way which cannot be wholly reduced to sensibly instantiable objects. The obvious case involves socio-culturally constructed realities, such as being a “full professor” or “associate professor”, a civil office, a military rank, and so on. More disputable cases involve, for example, the
The notion of angels as individual substances which have no bodily dimension of their own, "pure spirits". You may not believe such creatures exist, but you can argue the point, yet only with another human. The same way with God: you can be an atheist, an agnostic, or a believer of some form, but in whatever case only with another human animal can you argue the point of God's existence or nonexistence. But you can't lay some sensible thing on a table and say "Here's what I mean by God." The same way with an angel conceived as pure spirit: we have all seen statues of white-robed creatures with long blonde hair and wings growing out of the shoulder blades; but for sure that's not an angel, nor in any direct sense even a statue of an angel. Only instantiable objects can be as such carved into statues!

Before I got involved in semiotics or knew anything about it, including even the name, I had to give a talk to a group about the role of natural selection in the emergence or "making" of the human species. What I argued in that paper (Deely, 1966) was that at the moment of fertilization the genotype is established, and the genotype in turn establishes a reaction range. And all the development of the organism from that point has to fall within that reaction range. Go outside the reaction range and you kill the organism. But within that reaction range from the beginning will be included that biologically underdetermined component or feature of the modeling system or "Innenwelt"; hence you have a demonstration that a given individual, regardless of its parents, either was or was not human, just as every woman at any given moment either is or is not pregnant. It doesn't matter if she's aware of it or not. In fetal development there are stages, but pregnancy itself is an either/or. So it is with the human individual: regarding its being human, we confront an either/or. The argument is very important for semiotics, even though it was not written with semiotics in mind at the time of the writing.

33 The first full definition of this as an English language term is provided in Deely, 2010c, pp. xii-xiv.

34 I say "basic", because touch remains a generic rather than specific term as the evolutionary basis or "ground" out of which the so-called "higher" senses of smell, hearing, and sight develop in the processes of evolution. See the treatment in Hoffmeyer, 2008.

35 For, as I have pointed out (2001, pp. 611, text and note1), there is an established genre of late modern thinkers falsely called post modern, who yet rather illustrate in their writings the logical extremes of modern "epistemology"."Ultermodern" is not "postmodern".


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