Why read Deely? Introduction to the *Four ages* special issue

SUSAN PETRILLI and JOHN HITTINGER

1. Susan Petrilli: A view from Europe

As oil lay in the ground for millions of years hardly noticed and little useful, suddenly to become essential and invaluable with the discovery of the internal combustion engine, so the general notion of sign lay embedded in philosophy's historical development and noticed if at all only on the margins, suddenly to become a topic of central and essential interest with the realization that *all of thought, and before that sensation itself*, is in signs. Yet while that (now) precious oil may one day again become an object of little to no interest with the introduction of new technologies not yet dreamed of by men, it is not so at all with the questions of semiotics!

For where the oil analogy falters is over this difference: no technology can ever render the doctrine of signs insignificant, for the very thought of humankind depends upon signs from its origins in sense to its farthest reachings toward the infinite in being and action. Oil became important *because of* a new development. The action of signs *was important* from the beginning, only time was required for semiotic animals (no other animals enjoyed even the possibility) *to realize* that importance, an importance coextensive with human understanding and beyond — if we want to consider even (again with Deely, this time 2004) the case of creatures intellectual, as are human animals, but *bodiless*, such as Aristotle postulated in his theory of Separated Intelligences moving the (as we know now mythical) celestial spheres, or as Aquinas and Augustine presented in their theory of ''angels'' as intellectual beings devoid of bodies or even the capability of informing bodies properly their own. Even there semiosis proves indispensable to awareness.

Hence the importance of Deely's *Four ages*, reminiscent of what Thomas Donlan once said of his edition of Poinsot: ''This is not a book; it's a *tome*!''

As astounding as this tome may be for size and comprehensiveness (but never with a claim to exhaustiveness), what is even more impressive, and

well beyond the quantity of information made available in one work and by a single author, is the *new perspective* offered on the history of philosophy itself and as a whole. The original division of the work into "four ages" is based on the predominantly conventional character of linguistic communication as the "exaptation" (in Deely's phrase borrowed from Gould and Vrba 1982 and Sebeok 1985, 1986) of the biologically underdetermined modeling distinctive of the human animal in its unique capacity for achieving *metasemiosis* (i.e., the reflection of wonder consequent upon the realization that *there are signs* upon which all thought and experience depends).[1] Within this framework, we find the development of new insights into basic issues on a theoretical level thanks to a remarkable capacity for dialogic and dialectic problematization.

The *Four ages of understanding* is not only a *history* of philosophy, but a new *philosophy* at the same time, one that interrogates the very foundations of human thought and the very character of its historical dimension. The book establishes a perspective that favors dialogue between the history of philosophy and the problems upon which such history is constructed, or around which the history develops, in varying ways in each of the periods. By casting the whole of philosophy in a new light and new perspective, *Four ages of understanding* furthers our understanding of old problems through new interpretations of traditional issues while at the same time raising also new problems at the very heart of semio-philosophical reflection, and therefore of life itself. Thus empowered, human understanding looks forward in search of new horizons, new interpretations, and new solutions to the whole range of problems proposed for the reader's perusal.

Beginning with Descartes' recommendation to cease reading the Latin and Greek philosophers lest "traces of their errors infect and cling to us against our will, and despite our precautions" (1985 [1628]: 13), modern philosophers came to see the history of thought as irrelevant to their work as philosophers, an attitude which particularly marked so-called "linguistic philosophy" in the twentieth century, modernity's twilight era. Deely's account shows that such an attitude embodies a serious error, inasmuch as philosophy requires an historical consciousness for the very reason that science requires a laboratory: to test the consequences of given hypotheses or views. Thus, exactly on the most decisive points that emerge in the history of the development of semiotic consciousness — such as the unity of semiosis, the triadic character of the relations constitutive of signs, and the transcendence by the action of signs of all subjective divisions of being — Deely shows that the American philosopher Charles Sanders Peirce (*CP* 5.488) owes much of his greatness as "a pioneer, or rather a backwoodsman, in the work of clearing and opening up what I

call semiotic, that is, the doctrine of the essential nature and fundamental varieties of possible semiosis,'' to the fact that he explicitly recognized that ''the field [is] too vast, the labor too great, for a first-comer.'' Unlike any other among the moderns, as Deely's remarkable history stands alone in being able to detail, Peirce achieves his own semiotic consciousness by turning to the very history that the modern mainstream eschewed and picking up the threads of the original development of semiotics among the Latins, effectively establishing a genuinely postmodern frontier, finally setting the boundaries of philosophical modernity and commencing the ''Way of Signs'' as the path of a veritably postmodern intellectual advancement of human culture.

In this new development, as precisely ''postmodern'' as the line Peirce draws between ''pragmatism'' as compatible with the nominalism of modern philosophy and ''pragmaticism'' as incompatible therewith (Deely 2001: 616–622), the sign not only performs its vital role but also takes the spotlight as vital in that semiotic web as relation, which is the only real guarantee of any genuine communication of any sort. It is with this achievement that Peirce occupies the position (Ch. 15) of ''last of the moderns and first of the postmoderns,'' in exactly the sense Joseph Ratzinger characterized with his proclamation or formula that ''sole dominion of thinking in terms of substance is ended; relation is discovered as an equally valid primordial mode of reality. It becomes possible to surmount what we call today 'objectifying thought'; a new plane of being comes into view'' (2004: 184).

But with Deely, the semiotic interpretation of Peirce takes us even beyond Ratzinger, grounded by his faith in being, to glimpse something ''otherwise than being'' (to use an expression evoking Emmanuel Levinas), that may be vaguely seen to emerge on the horizon beyond ontology and epistemology alike in their modern senses, in a dimension that has to do with ethics no less than ontics. In fact, analysis of the history of philosophy and its problems within the framework of ''four ages'' may also be interpreted as contributing to human understanding and its development in terms of the transcendent other beyond self, beyond being. In other words, Deely's approach contributes to our understanding of the ''otherwise than being'' at once transcendent and yet still of this world. Concretely, this remarkable new horizon is first adumbrated in the neglected notion of Aquinas, as treated by Deely in his Chapter 7 (pp. 341–355) and again in Chapter 15 in connection with Peirce's ''new list of categories'' (pp. 645–660), that ''being as first known'' involves equally *nonbeing* or *ens rationis*, equally objective and knowable with being or *ens reale* but (even in its dependence thereon) irreducible thereto; and not only inseparable from the Umwelt of any animal but also

constitutive of the species-specifically human Umwelt, the Lebenswelt, insofar as the human lifeworld depends upon the distinctive possibilities of social construction opened up by linguistic communication. Thus, as Deely presents the matter, there remains little or no doubt that recognition of other as other, a theme present in filigrain throughout Deely's volume (as shown by my contribution with Ponzio in this issue; and see Petrilli and Ponzio 2003), implies — as the "practical extension" (as Aquinas puts it) of what distinguishes human understanding — an equiprimordiality of ethics with being in philosophy.

Such is the story that Deely's book tells, an absorbing and astounding tale that is as revolutionary for our understanding of traditional philosophy as it is for our understanding of semiotics as the quintessential postmodern florescence of that long tradition.

2.   John Hittinger: A view from the Americas

John Deely's *Four ages of understanding* amounts to a new map of the history of philosophy as a whole. In tracing this new map, Deely provides us with a wealth of resources for seeing in semiotics ways of curing the current malaise in philosophy and surmounting the age-old standoffs looping back to the empiricist/rationalist and realist/idealist dichotomies of the modern age. This remarkable tome takes a fresh approach by providing *landmark* details[2] that change the very way we see philosophy's overall development as we look back over a now confusing and often trivialized historical awareness.

I think an apt comparison could be made to the work of Alasdair MacIntyre in the field of ethics, *After Virtue*. As MacIntyre (2007 [1985]) with that book broke up the sterile rehearsals of consequentialist versus deontological debate with his breakthrough concept of virtue in communities of practice, so Deely breaks up the sterile rehearsed histories of philosophy with the breakthrough concept of sign. As MacIntyre found untapped and unappreciated resources in Aristotle, Augustine, and Marx, so Deely finds a newness in Peirce, Locke, Poinsot, and Augustine. *Four ages of understanding* has the potential to refocus the debates about knowledge and redraw the lines of alliance.

Deely provides a much needed focus to the term "postmodern," so bandied about to little accord in the contemporary discussions thus far. Heretofore this term, "transposed into the philosophical field," as Karol Wojtyła remarked, "has remained somewhat ambiguous, both because judgement on what is called 'postmodern' is sometimes positive and

sometimes negative, and because there is as yet no consensus on the delicate question of the demarcation of the different historical periods'' (1998: par. 91). In Deely's book this term finds a latent history, an intelligibility, and a fruitfulness for future exploration, wherein Wojtyła's ''delicate question of demarcation'' has been resolved.

How did Deely come to produce this work designed to upend the academic histories of philosophy? Aside from the personal characteristics of the author, such as pertinacity, rigor, encyclopedic knowledge, and readiness for dialogue on important issues of philosophy, we must look to resources he deploys in this body of work. To begin with, Deely strategically introduces from Sebeok the distinction between ''language'' and ''communication.'' ''Language'' in the root sense is the biologically underdetermined part of the human modeling system; while ''communication'' is a universal phenomenon that becomes ''linguistic'' only as a species-specific modality through a process of exaptation, i.e., an adaptation applied to a new or further use than the original one. Aristotle notes in the beginning of his *Metaphysics* (980a25) that there is a surplus of function in human sight that goes beyond its utility, lending itself to seeing for the sake of seeing; thus, speculative cognition is born in such surplus. In Deely's account, it is language, or rather ''linguistic communication,'' which spills into philosophy through reflection; and thus we find ready-made, if you will, an overall framework for the development of philosophy in its ''four ages.''

In its origins and initial development, philosophy is an achievement of the ancient Greeks that was made possible in great part because of the inner brilliance of their language. The quest for true being, in opposition to what merely seems, is urged upon us by the very grammar of Greek language. But around the fifth century AD, changes in civilization and politics resulted in a major linguistic shift, and a new age, the ''Latin Age,'' took root through the work of Augustine and Boethius. The uniqueness of the Latin civilization in its Roman and subsequent medieval variants is sketched by various authors, such as Brague (2002) and Dawson (1932). But Deely attends to the way in which Latin became the main carrier or vehicle of philosophical thought and made possible the first comprehensive approach to the problem of sign as such. Augustine, explicating issues in language and sacramental theology, introduces into the Latin development a general notion of sign that has no precedent in the earlier Greek period, which treated of signs only as a specific form of natural phenomena or as divine interventions in nature's ways. Picking up the thread introduced by Augustine, however, is what enables Deely to develop, in sharp contrast to what has been the standard treatment, a pattern of Latin philosophical development which does anything but

fall into barrenness after Ockham. In fact, Deely is able to show that the main realization and development of the consequences of Augustine's original notion of sign takes place in the very period that the standard histories neglect all but entirely — that is to say, the period between Ockham and Descartes! These neglected last three centuries of the Latin Age thus need to be seen *de facto* as among the most important of the centuries wherein human beings make progress in following the advice of Socrates, "*Nosce teipsum*," "Know thyself," for they constitute the original gestation of semiotic consciousness. The 1632 work of Poinsot, summarizing these later Latin centuries, had achieved in fact the first demonstration of the systematic unity of sign as subject of possible inquiry, of the being of signs as consisting in triadic relations, and of the rationale for the sign as transcending in its action and being all the traditional divisions between nature and culture, inner and outer, *ens reale* and *ens rationis*.

   Although spawned at the end of the Latin Age (which still includes Galileo, Poinsot, and Descartes), the modern age witnesses another seismic change of linguistic communication taking shape, the shift from Latin to the "national languages" of modern thought and culture, and such discourses and essays in vernacular first mastered by Machiavelli, Montaigne, Descartes, and Locke. With an emphasis upon self-concern, personal verification, and the utility of knowledge, to the neglect of tradition and inter-personal dialogue, the modern age generates in philosophy the antinomies and dichotomies that continue to haunt the philosophical establishment. Of course, the modern age enriched philosophy in many aspects, well articulated by Charles Taylor (1989) in *Sources of the self*. But as for "first philosophy," even John Locke (who, as Deely notes, first proposed the science of semiotics) could not ultimately escape the dilemmas of epistemology into which the Cartesian way of ideas had plunged philosophical modernity.

   We find two key figures looming large in Deely's work, Poinsot and Peirce. John Poinsot, a "medieval" or Latin Age philosopher, writing at the time of the first moderns, crafts a work on signs that lay unread for centuries, his approach to the doctrine of signs (semiotics) unknown, until French philosopher Jacques Maritain drew a first attention to the work beginning in 1937 (and here I should mention that Deely was one of the last people to meet with the elderly and reclusive Maritain, at the Chateau Kolbsheim in Alsace-Lorraine on July 20, 1972). Just four decades prior to Maritain's discovery of Poinsot's work on sign, Charles Sanders Peirce had begun his account of semiosis through his own (Latin Age informed) efforts to surmount the dilemmas of modern epistemology. Peirce picked up from Aquinas, Scotus, the Conimbricenses (Poinsot's

undergraduate university professors), and others, the loose ends of the Latin semiotic development to establish what amounts to a postmodern frontier demarcating the end of epistemological modernity and initiating the "time of the sign" as the essence of a truly *post*-modern development of intellectual culture. In this new development, the sign not only *plays* its indispensable role but *comes to be seen in its indispensability* and proper being as that network of sense-invisible being, namely, relation, that everywhere sustains communication wherever it occurs. Deely, accordingly, identifies Peirce as at once "the last of the moderns and first of the postmoderns."

The fourth age, the truly postmodern age, now emerges from the spent cultures of modern nationalisms as linguistic communication itself comes to be seen as but one system of signs dependent upon many others (see also on this point Todorov 1978 and Deely 2006). Deely sees this perspectival shift — to a view of language itself seen no longer as if it were a self-contained and autonomous medium, but seen rather according to its workings as a system of signs and dimension of semiosis among other dimensions — to be the advent of a postmodern and truly global stage of intellectual culture.

Thus Deely brings together Poinsot and Peirce, Maritain and Sebeok, together with the whole cast of philosophy's historical development, within a monumental survey of philosophy wherein the theme of the sign and its centrality to human culture is made explicit in the unfolding of philosophy from its very beginnings in the ancient world. Since semiotics is the knowledge acquired by the study of semiosis, and human animals are distinctive in being able to recognize relations as being the essence of that activity proper to signs, semiotic knowledge is a possibility distinctive of human animals. From this unique possibility Deely (joined in this by Susan Petrilli and Augusto Ponzio, 2005) proposes accordingly, as the postmodern definition of human being, *semiotic animal*.

Should anyone wonder why *Semiotica* is devoting an entire issue to a collection of review and discussion articles by readers' of Deely's book, I should hope that my brief remarks here sufficiently indicate the answer. Not only is the place of semiotics for the first time set in the full perspective of philosophy's history, but that history itself is for the first time made sense of in terms of exactly what — for philosophy as a distinctive discipline of the mind — constitutes postmodernity. As the reader will see, the resources and fruitfulness of Deely's demarcations, delineations, and discoveries are richly proffered to us in implications drawn by readers that go well beyond Deely's own work — precisely by taking account of that work.

Notes

1. Without exception or, as Deely (2001: 126–128) notes, with the *possible* exception of mystical experience *in its origin*, even if not at all in its construal. Coming to terms with a universe perfused with signs both in action and thought is precisely the post-modern human task.
2. It should be mentioned that there are also *scholarly details* of Deely's work that are in their own way landmarks of style, one of which in particular that merits universal adoption, to wit, his so-called ''historical layering'' of references according to dates invariably within the lifetime of the author cited, giving the reader a view of the veritable history as embedded in discourse, comparable to what a geologist is able to see in layers of rock. Then there is his detailed Index, covering one-hundred-seventy-seven pages, which organizes the reader's access to details in ways that veritably supplement and augment the information of the main text itself. And his concluding Table of Figures, arranging the philosophers from ancient to present time by year of birth and death, enables the reader to see exactly which among the great figures had the possibility to meet in the flesh as well as in the great discourse extending over the whole of historical human time.

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The integration of Thomistic intentionality theory and contemporary semiotics

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Abstract

Semiotics is a theory of signs, beings whose whole identity is to be not a thing or idea in itself but to signify something else. Thomistic intentionality theory serves a similar purpose when applied to ideas and sense perceptions in the realistic theory of knowledge. Ideas and perceptions are not objects or things in themselves, but their whole identity consists in being ''about'' something else, in ''intending'' or ''stretching out'' to signify or be a sign of something else.

Keywords: mind-independent being; realism; bridge problem; Poinsot; Peirce; Brentano.

The rapprochement of the high medieval intentionality theory of St. Thomas and the nineteenth- to twentieth-century movement of ''semiotics'' (theory of signs), launched by Charles Sanders Peirce, is somewhat of a recent discovery, at least to me — and to many others, it seems. But it is a fascinating chapter in the history of Western thought, filled with significant implications, and deserves to be better known. It came to my knowledge through my reading (for a paper at the ACPA meeting in November of 2003)[1] of the remarkable work of John Deely, *Four ages of understanding* (2001), a thousand-page history of Western thought from the point of view of the theory of signs. There he points out that the first two Ages, the ancient and the medieval (or Latin Age), either implicitly (the ancient) or explicitly (the medieval) built their whole realistic theory of knowledge on the basis of a theory of intentional signs that mediated the outer world of mind-independent real beings to the inner world of mind-dependent human and animal consciousness.[2] He calls these two periods ''presemiotic'' and ''protosemiotic,'' respectively (Deely 2006).

At the end of the latter period, in the late Iberian revival of Scholasticism, appeared the first formal treatise on signs in Western thought, the *Tractatus de signis* (1632) of John Poinsot (often called by his later Dominican name of John of St. Thomas, the last of the great Thomistic commentators). This was a brilliant work of synthesis, constructing a general theory of signs, for the first time, with the realistic epistemological side of it built upon the intentionality theory of St. Thomas, interpreted in the language of signs. St. Thomas occasionally uses the language of signs, but worked out no formal theory of it, preferring the language of "intentionality" (*esse intentionale*, *species sensibilis*, and *intelligibilis*, etc., as distinct from *esse reale*).

But the same fundamental philosophical insight is at work no matter which form of language is used; namely, any realistic theory of knowledge must be built, implicitly or explicitly, on a theory of "formal" or "intentional signs," whose special mode of being is a purely relational or "pointing" one, i.e., "that which makes known something other than itself." These signs, the result of the ontological intentionality of real being itself as dynamically manifesting itself to some cognitive receiver by leaving the impress of its action upon it, do not makes themselves known to the knower directly in themselves as objects known, but as pure "signs of ..." pointing back beyond themselves to the real agent from which they come and which they manifest. In my own modern translation of this function I like to call them "self-effacing signs." St. Thomas calls them "intentional similitudes" because their whole being is a relational one, tending or pointing toward something beyond themselves, their active source in the real beings acting on the knower, as formal similitudes of the latter. One of his favorite ways of describing how these sign-beings work is to say that that they are not *that which* is known by our sense images and intellectual concepts, but that *by which* the real world they refer to is known.

How important St Thomas considers this distinction as central to a realistic epistemology is shown by the long article he devotes to it in his *Summa Theologiae* I: "Whether the intelligible species abstracted from the phantasm is related to our intellect as that which is understood" (q. 85, art. 2). His answer is "No," for if so, we could have no knowledge of the real world outside our minds or be able to distinguish between truth and error about reality. Hence they must be not *that which* is known but *that by which* the real objects beyond them are known; in a word, in more contemporary language, they are *self-effacing (intentional) signs.*

At the same time that John Poinsot was publishing his *Treatise on signs* of 1632, Descartes, the father of the "modern" period in Western

thought, was publishing his own works, marking the new "turn to the subject" that was to be characteristic of the whole period of classical modern thought. Deely in his book characterizes this whole modern period from Descartes, through the other rationalists, through Locke, Hume, and the other empiricists, up to Kant and beyond, as the "Age of Ideas," the reason being that the key epistemological principle guiding all of them was the exact opposite of what St. Thomas and Poinsot had earlier established. As John Locke puts the modern turn succinctly: [That which is immediately evident to the consciousness of every man is] "that which his Mind is employ'd about whilst thinking [are] the Ideas which are there" (1975: I, 1.1) . . . "Our knowledge is only conversant about them" (1975: IV, 1.1).

The notion that these ideas and perceptions are rather *intentional signs* of a real world beyond our ideas — *that by which* we know this real world — has vanished! The whole order — and theory — of intentionality, of intentional, self-effacing signs, has slipped off the radar screen of this classical modern period. The amazing fact is that no classical modern philosopher (outside of Thomists — most notably Jacques Maritain [Deely 1986] — and other scholastic philosophers) ever mentions or discusses John Poinsot's *Treatise on signs*, published in the opening era of modern philosophy. Poinsot's creative synthesis seems to have suddenly blossomed, at the end of the scholastic age, then almost immediately died, totally forgotten or ignored (deliberately or not) throughout the whole modern period. It should be remembered that most of the leading classical modern philosophers came from the north of Europe, were not Catholics, and tended to look down on the "pre-modern, outdated, theology-dominated philosophy of the Middle Ages, typically expressed in Latin." It is thus perhaps no wonder that they seem to have ignored entirely the powerful Iberian Revival of Scholasticism in the sixteenth and seventeenth centuries that took place in Catholic Portugal and Spain and engaged in a lively discussion of the theory of signs — but all using the Latin language.

But once the fateful step had been taken of positing that ideas and sense impressions in the mind are that which is first and directly known, the sole immediate object of our awareness, the problem arises: How then do we get from our ideas to the real world beyond them? What is the bridge, the connection, if there is any? The whole of classical modern philosophy struggles with this *problema pontis*, the "bridge problem," without ever really finding a satisfactory solution.

All kinds of strategies have been tried, from idealistic metaphysical ones to pragmatic ones through feedback from the real world (but how would one ever know the feedback is from the real world?), or recourse

to common sense or "animal instinct," or simply forgetting about the problem and following the natural dynamism of the mind toward the real. Finally Immanuel Kant gives up on the project itself and concludes we must be content with knowing only the phenomenal appearances within our own consciousness and imposing intelligible forms upon them from within by our own innate a priori forms of sense and understanding, which are fortunately the same for all human knowers.

This is Kant's famous "Copernican revolution": the world no longer *informs us* from without; it is we who *inform it*, i.e., impose the intelligible forms from within ourselves upon the raw material, the "sense manifold" that alone comes to us from without as an intervening "phenomenal veil." The only world accessible to us humans is the world as we have to think it from within the a priori forms of our own minds. "We are world-makers through our language," as later Neo-Kantians will say (Nelson Goodman), exchanging what Kant believed were the universal, unchanging a priori form of all human knowers for the newer historical, changing a priori's of language and culture (now "a prioris" only for those within that culture and language). Having discarded the key of dynamic intentionality, of intentional signs, they have locked themselves in and have no way of opening the door again to the real, mind-independent world without — no *philosophical way*, that is, although in their ordinary lives they spontaneously live consciously as though connected with the real world, without worrying how.

The great German idealist philosophers after Kant — Hegel, Fichte, Schelling, etc. — rightly judge that this situation in which Kant left them is intolerable. We must somehow know the real world basically as it is, they felt, yet lacked the means to pick up again the epistemological and metaphysical key of a realistic theory of intentional signs connecting to the real world from within the world of consciousness (the *Umwelt*, as Deely calls the public side of the *Innenwelt*) through the medium of the action of the real world upon us, leaving in us (as indeed in every animal) intentional signs of the physical surrounding in *its* own being. Instead, accepting that the outer real world cannot really inform us about itself so that our minds are truly receptive of the real, the moderns after Kant concluded that the real world must conform to our ideas on the ground that we are really secretly united with the one great Absolute Mind that creates all reality, co-creating this dependent real world together with the Absolute. In fact, we ourselves are actually only expressions of the Absolute unfolding itself in history. We humans are really "little gods," so to speak, who are not yet aware of what or who we really are.

But the twentieth century, the age of unprecedented violence anticipated in Darwin's theory of evolution by random mutations and the sur-

vival of the fittest, collapsed what was now recognized as the Myth of endless Progress, the infinite perfectibility of man, moving toward an inevitable Utopia generated by a beneficent Science. The human being is no longer now the quasi-divine being it was thought to be. We must turn back to a more humble listening to and learning from reality itself that is not our creation.

Deely concludes that this whole modern philosophical journey along the Way of Ideas — at least in its epistemological and resulting metaphysical dimensions, despite many other significant contributions — has proved to be a dead end, although many are not yet able to concede that it is such and keep trying to build a bridge across the unbridgeable abyss separating, on modern epistemological premises, their minds from the real world.

The Fourth and last Age of Western thought in Deely's history he calls the ''Postmodern Age,'' in his own special way of understanding ''Postmodern'' not in its customary negative sense of Deconstruction and incurable relativism, but in the positive sense of the rejection of the Way of Ideas characteristic of ''Modernity'' to rediscover again creatively the realistic Way of Signs of the later medieval mind, as powerfully expressed in John Poinsot's *Treatise on signs.*

This new Age of Signs was initiated by Charles Sanders Peirce in the late nineteenth and early twentieth century, and blossomed into the now global movement (as Thomas Sebeok called it in his last book of 2001) of semiotics absorbing semiology. Peirce himself started off as a convinced Kantian, then renounced Kant when he rediscovered the whole theory of intentional signs by actually going back to read in Latin the late Iberian scholastic elaborations of the theory of ''formal'' or self-effacing signs which built upon St. Thomas's doctrine of intentionality (Beuchot and Deely 1995), but going far beyond it to construct the first general theory of signs in the West.

Peirce added on many creative developments of his own to the theory of signs, although his famous triadic definition of the sign as involving (1) the sign-vehicle, (2) the object signified, and (3) the interpretant (or interpreter in the widest sense) that interprets the sign-vehicle as sign of the object, apart from the term itself, ''interpretant,'' owes more to the Latins than to Peirce's own genius.

Notice that in the modern Age of Ideas the notion of sign was telescoped by Saussure and the early ''semiologists'' into only two components: the sign vehicle and the interpreter, the knower. The object known beyond the sign-vehicle has disappeared, absorbed into the sign-vehicle itself, so that the latter has now turned into the very object known; its whole pointing function has dropped out of sight! Thus the semiotic

movement *relaunched* by Peirce is basically realistic, anti-Kantian (although it is not clear to me that he and all his followers always held on fully to this realism. I am open to correction on this).

As twentieth-century Western thought developed, the phenomenologists, especially the existential ones and the interpersonal ones (Heidegger, Mounier, Buber, Marcel, etc.), simply refused to consider or take seriously the bridge problem at all. A careful description of our actual human condition, they argued, shows clearly that from the very beginning the human being as knower starts off in the midst of a real world interacting with animal knowers, and especially with real persons communicating successfully with each other through languages that have already been taught them by others. Although all do not bother with explaining how this is possible, the official phenomenology movement, initiated by Brentano and developed by Husserl, etc., has explicitly reinstated intentionality as the key to human knowledge. Brentano is proud to say that he has rediscovered for our day the medieval scholastic theory of intentionality, neglected by the classical modern period.

If this were the case, then it seems that Western thought is back on the track of a realistic epistemology again, and we do not need to go back again to St. Thomas's own theory of intentionality. Unfortunately this is not the case — and this I consider my own special contribution in this paper. Brentano has indeed recovered an important half of Aquinas's own full theory, but only half of it. He has recovered the movement of the mind reaching back through intentional signs in our consciousness to the objects it knows. The sign is again "that which makes known something other than itself." But the initial metaphysical underpinning, coming from the initiative of the real world itself acting upon us, is still missing.

First, let us take a closer look at Brentano. Although he has caught well the intentional movement of the mind back toward its objects, he then somehow loses his nerve. It turns out that the only objects that the mind can intend are mental objects, within the mind itself (see Deely 1978, which analyzes Brentano's own texts on this crucial point). The reach across to the real itself has been short-circuited. He remains stuck in a kind of semi-idealism.

Next, how about Husserl? He carries Brentano's intentionality all the way, it seems, to become a sign of the real world itself, the *Umwelt*, presenting itself to the mind of the human knower, whose content he then focuses on to describe with all his well-known richness and subtlety. But Husserl himself never pays any further explicit attention to just how the objects in the real world present themselves to the interior consciousness of the knower, its *Innenwelt*, and pretty much all professed Husserlians

seem to follow him here. Because of this, many philosophers call Husserl, with good reason, a "naive realist" in this aspect of his phenomenology. That would be fine with me and other Thomists. We take what Husserl gives us and are grateful. Phenomenology fills out with great richness what Thomas's more exclusively metaphysical approach leaves implicit. But in order fully to understand our human process of knowing, phenomenology itself needs the complementary metaphysical grounding of the dynamic relation of the real world to the human knower. But many strict Husserlians, I have found, strongly resist any attempt to ground phenomenological intentionality in any kind of prior metaphysical foundation. Phenomenology, they vainly postulate, is "self-grounding"; it grounds all other modes of explanation, including the doing of metaphysics itself.

This is a crucial point in the interface between phenomenology and metaphysics, and it is not easy for many of us to be sure just where Husserl himself stands on this point. So I am putting this question to you, my audience and readers, to find out both where Husserl himself really stood, if possible, and where you yourselves stand as philosophers.

This is where the unique contribution of St. Thomas comes in. For him, there is an initial *ontological* intentionality (in a deeply analogous sense, of course) of real being itself as by nature dynamically self-manifesting, self-communicating to other beings by the medium of the distinctive action of each real being. By this action the agent through its form projects into the expectant, receptive cognitive field of the knower a formal similitude of itself — which Thomas calls a *species impressa* or impressed intentional similitude of itself. To be a knower is to be the kind of being that is equipped by nature to be expectantly open to receive the projected formal similitudes or self-expressions of agents from the outside world acting on the self, and to consciously recognize these intentional similitudes as *other* than the self's own innate natural form and as enabling dynamic signs pointing back beyond themselves to the real agents from which they come. Thus human knowledge is intrinsically "intentional" by nature, a "consciousness of . . . another as other." This is precisely what allows human understanding to include knowledge of a real world of active agents beyond itself.

The key to such realistic knowledge is clearly the notion of a *self-effacing sign*, i.e., the effect produced by a real agent, actively projecting onto the receptive, or expectantly potential, field of a knower a formal or intentional similitude of itself whose whole being is relational, pointing beyond itself to its source in the real agent outside the knower. St. Thomas called such a sign an "intentional similitude" (incorporating the strong image of stretching beyond itself); John of St. Thomas (Poinsot),

incorporating it into a more general theory of signs, called it a "formal sign" (This is to distinguish it from a "natural sign" such as alone was generally recognized among the ancient Greeks, e.g., smoke as a sign of fire, where the smoke has to be first known in its own real being, then connected with fire, also known first in its own real being, and then one serving as a natural sign of the other, incorporated into the very structure of nature itself, prior to our knowing it. Such a sign, of course, already presupposes that we know the real world as it is, hence cannot serve as the explanation of how we know this real world in the first place.)

It should be clear from this that the intentionality of Brentano and the phenomenologists — which traces out insightfully how the mind follows out the pointing of the sign already within it back to its source beyond the knower — does not explain or ground ontologically in any way how the sign got within the knower in the first place. To be complete and intellectually satisfying the *one-way* intentionality of Brentano and contemporary phenomenology must be completed by the *two-way* intentionality of Aquinas: first *ontological*, rooted in the intrinsic self-communicating dynamism of real being itself; only then cognitive or *epistemological*, i.e., the dynamism of the knowing being itself, responding to this gift from the real world. The basic structure, thus, of all realistic knowledge is the dynamic relation of receiving-and-responding between knower and world; and the indispensable mediating bridge is that of the intentional or self-effacing sign, that which allows the outer world to become present as known in the inner world of human consciousness.

John Poinsot, and John Deely after him, make the interesting point that the intentional sign can function as this bridge or mediation between the inner world of mental being and the outer world of real being precisely because its unique character (what Deely traces to what he calls the "singularity" of relation as ontological) is that the sign transcends both, is neutral to both, so to speak, anchored at one end in mental (mind-dependent) being within consciousness and at the other pointing to or terminating in real (mind-independent) being without. This is because, as St. Thomas himself pointed out earlier, the being of an intentional sign is the being of a *relation*, and relation is the only one of the Aristotelian categories that can function equally in the order of real beings, or of mental beings, or between the two.

Admittedly, the being of a formal sign as such is indeed a mysterious one, and not at all easy to analyze, certainly not by any scientific method of quantitative measurement and mathematical expression. But it can be shown that it is an indispensable ingredient of our marvelously self-communicating universe. St. Thomas himself has done a subtle and insightful analysis of it in various places in his work, which we cannot go

into now, though it is well worth studying (see Deely 2004). One of his main points is that the mode of being of an intentional sign cannot be reduced to a purely material one, since it is clear that in human knowledge the actual physical material of the thing known is not physically transported into the knower — which would be absurd. The sign must be present, then, in the knower in the mode of a form without its own natural matter — a formal similitude, as Thomas puts it — which demands a certain degree of immateriality, both in the indwelling sign itself and in the receptive knower so as to be able to receive it. Thus, intentionality and immateriality go together in the hierarchy of being, and that is why any knower must exist on a higher level of being than a non-knower.

In conclusion, let me say that it seems to me that the new semiotics theory and the old Thomistic intentionality theory (in its double dimension: metaphysical and epistemological) unwisely banished by "modernity's" Age of Ideas are profoundly complementary. In fact, they need each other to be complete. Thomistic intentionality theory is enriched by being incorporated into a wider general theory of signs; semiotic theory needs to have its epistemological intentionality metaphysically grounded in the ontological intentionality of being itself as by nature actively self-manifesting, self-communicating. Their integration can only be for the benefit of both. I am happy to report that John Deely, himself a leader in the field of semiotics, has expressed his strong agreement with the relevance and need of this integration.

A few key questions still remain, brought up by critics.

1.   Why should not Thomists just be content with Aquinas's own language of "intentionality"? Why bother with expressing it in terms of semiotics or "sign-theory"? What does that add, if anything?

Response. Although St. Thomas occasionally uses the term "sign," he prefers the term "intentionality" as already introduced for the first time by the great Arabic philosophers read by Aquinas in Latin translations. This can indeed carry the essential thought content, but it still leaves matters somewhat obscure.

The ontological nature of "formal or intentional similitude" — "that which points to another" — is still a metaphor, though understood by the experience of knowing. But just what kind of being is that of a formal similitude or intentional similitude? It is more illuminating to add that what these are doing is acting as "signs" of something beyond themselves. They are of the ontological nature of "sign," which is not a metaphor. That is precisely why John Poinsot in the seventeenth century first translated the traditional Thomistic theory of intentionality into the broader theory of signs in his own book, itself the fruit of lively discussion of the

topic of signs in the Iberian Thomistic Revival of that era. One sufficiently steeped in the older ways perhaps does not have to make this translation, but it seems more illuminating for the contemporary philosopher if one does. The ontological function is more clearly and explicitly expressed when it is set in the context of a theory of "sign," particularly when that expression is accomplished in an already established and widely used contemporary theory known as "semiotics."

2.   How open is the semiotics community to understanding and accepting the need for the ontological grounding of an epistemologically realistic semiotics?

Response. Many have not ordinarily been interested in that kind of question. That is what is not yet clear, John Deely informs me. But that is precisely what he, as a highly respected technical semiotician and I through him are now trying to do, using this article in this collection as a springboard. Wish us well — and join us!

   Can the necessary ontological grounding for a realistic semiotics be done through the metaphysics of Peirce, with which many contemporaries are more familiar? Perhaps so, which would be welcome. But personally, I am not intellectually comfortable with Peirce's metaphysical method, using such highly abstract formalities as "firstness, secondness, thirdness," rather than Thomas's more holistically centered and existential starting points like being, nature, substance (according to the wonderfully expressive definition by Aristotle of nature as "as an abiding center of acting and being acted upon"). I find the Thomistic understanding of being as by nature intrinsically ordered toward dynamic self-communicating action more simple, direct, and easily accessible than any other realist metaphysical theory I know. And I am not sure that Peirce and the Peircians always hold on consistently to an unambiguous realism. But the essential is to have some adequate metaphysical grounding for a realistic theory of intentionality as our response to the signs left within us by the self-expressive action of the real world around us.

3.   What is the status of epistemological realism now in contemporary thought?

Response. It now has a central place again, partly due to the influence of realistic semiotics. But in the British-American Analytic tradition, where most do not like to get involved in metaphysical rather than linguistic analysis, a well-grounded understanding of intentionality never seems to have been integrated, so that many analytic thinkers still tend to shift back and forth indecisively between arguments over "realism/ anti-realism" (Hilary Putnam, John Haldane, etc.)

Let us end with Thomas's own words:

It is the nature of every actuality [actually existing being] to communicate itself as far as possible (*De Potentia*, q. 2, a. 4).

Communication follows upon the very meaning [*ratio*: intelligibility] of actuality (*In I. Sent.*, d. 4, q. 4, a. 4).

Each and every being abounds in the power of acting, just insofar as it exists in act (*De Potentia*, q. 1, a. 2).

Notes

1. *Editor's note*. Fr. Clarke is referring to his participation in the Symposium "Getting the postmodern perspective" organized by Professor Douglas Rasmussen on 2 November 2002 in the framework of the seventy-sixth Annual Meeting of the American Catholic Philosophical Association at Xavier University, Cincinnati. That symposium has since been published in 2005 in *The American Journal of Semiotics* 21(1–4), 1–74.
2. To understand the full Thomistic intentionality doctrine I have found most helpful the following: Hayen (1939; a powerful synoptic vision of a self-communicating universe), followed by his larger book of 1954; de Finance (1969: 72–78) is rich; Regis (1959: Ch. 6) is a careful analysis of both dimensions of intentionality, filled with texts; Casey (1992: 97–112); Pegis (1984: 109–134). By contrast, I found Searle (1983) to be a typically analytic approach, i.e., one with no metaphysical basis.

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The history of philosophy as semiotic process: A note on John Deely's monumental *Four ages of understanding*

MARCEL DANESI

Abstract

The histories of philosophy and semiotics constitute a continuum, as the separate historical treatments of both disciplines show, whether explicitly or implicitly. The first attempt to forge a link between the two disciplines goes back to John Locke, who claimed that it would allow philosophers to understand the relation between signs and knowledge. With the publication of the Four ages of understanding, *a major treatise by the American philosopher John Deely, Locke's agenda for integrating the two modes of inquiry into one has finally received a workable theoretical framework. This essay takes a critical look at the framework. While some of the details of Deely's treatment may be discussible, it is difficult to argue against his overall case. Deely has, in effect, united philosophy and semiotics into one integrated approach to the study of human knowledge.*

Keywords: history of semiotics; sign theory; philosophy; psychology; Saussure; Peirce.

1. Introduction

Many famous and celebrated histories of western philosophy have been written over the last one hundred years. With few exceptions (such as Langer 1948), the authors of the histories have tended to look at the origin and evolution of philosophical thought as products of social, intellectual, and technological movements and processes. Few of the prominent historical treatments have perceived a link between the history of semiotics and the history of philosophy, even though the first attempt to forge such a link goes back to John Locke, who anticipated in his 1690 *Essay concerning human understanding* that it would allow philosophers to understand the interconnection between representation and knowledge. But

the task Locke laid out has remained virtually unnoticed within both philosophy and semiotics as virtually no one since the British philosopher has ever envisioned a comprehensive ideological framework for relating the two modes of inquiry. This situation has finally changed once and for all, with the publication of a major treatise a few years ago that not only makes good on Locke's agenda, but takes it several steps further by integrating the two modes of inquiry into one. The treatise in question is the *Four ages of understanding*, written by the internationally renowned American semiotican-philosopher John Deely. This is Deely's ''magnum opus'' (to date), redrawing the intellectual map in philosophy and semiotics at the same time, thus setting the agenda in both fields for the foreseeable future. A number of philosophers since Locke have, of course, discussed the relation between sign theory and philosophical ideas and movements, but no one before Deely has — at least to the best of my knowledge — made this very relation an explicit and cohesive one.

The purpose of this essay is not to go over (in the style of a typical review) the contents of Deely's truly erudite and penetrating treatment of the four ''philosophical-semiotic ages,'' as he calls them — the age of the ancients, covering initial Greek thought, the Latin age, covering European civilization from St. Augustine in the fourth century to Poinsot in the seventeenth, the modern period, beginning with Galileo, Descartes, and Locke, and the postmodern period, beginning with Peirce and continuing to the present. Rather, my objective here is to revisit the history of philosophy through the lens of Deely's brilliantly carved semiotic argumentation. I cannot but agree wholeheartedly with Deely's overall contention that there is no discontinuity between philosophical thought and semiotics — defined simply as the science studying the production and use of signs. Whereas semiotics proper may have traditionally concerned itself with the investigation of how knowledge is encoded and philosophy with what it is, it becomes saliently obvious from Deely's treatment that in order to gain a truly meaningful grasp of the nature knowledge, both modes of inquiry will have to coalesce into a single integrated mode. After all, what is the study of understanding if not the study of how it is represented? While one might disagree with some of the minutiae of Deely's analysis of the issues, it is difficult to argue against his overall case. My goal here is, thus, to extract from Deely's *Four ages* an outline of philosophical history from the standpoint of sign theory, so as to emphasize the importance of Deely's objective of uniting philosophy and semiotics into one integrated approach to the study of understanding.

I should mention before starting that, in addition to being a thorough and extensive history of both philosophy and semiotics, the *Four ages*

contains a wealth of information about, and methodological insights into, both disciplines. This makes it, to my mind, a veritable "textbook" that can be used to introduce both fields to a broad audience, at the same time that it recharts the course of both for practitioners in the two fields. Deely's volume thus belongs to the same category of textbooks to which Euclid's *Elements* and Sapir's *Language*, for instance, belong — it both synthesizes and reshapes the subject matter of the discipline of which it treats.

2.   The first age: Constitution of the sign

Western philosophy began in ancient Greece as speculation about the underlying nature of the physical world. The first philosopher of historical record was Thales of Miletus, on the Ionian coast of Asia Minor, who lived around 580 BC. Thales was interested in astronomical, physical, and meteorological phenomena. He was the first of several important Ionian philosophers, who took the initial radical step away from mythological to scientific explanation of natural phenomena. Over the next few centuries the basic framework of western philosophical method was established by such philosophers as Pythagoras, Heraclitus, Zeno of Elea, Democritus, and the Sophists, as the fields of mathematics, musical theory, astronomy, atomic theory, logic, and metaphysics came into being.

Perhaps the greatest philosophical "personality" of the first age was Socrates. Born in 469 BC, Socrates believed that the philosopher's task was to provoke people into thinking for themselves. He stressed the need for the analytical examination of one's beliefs, clear definitions of basic concepts, and a rational and critical approach to ethical problems. His became the basic mode of western philosophizing, remaining so to this day. Socrates was, in effect, the first "innatist." He demonstrated that even an untutored slave could be led to grasp the Pythagorean theorem (the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides). This, he claimed, showed rather conspicuously that such knowledge was innate, rather than acquired from experience. But, as Deely suggests, Socrates seems not to have noticed that such knowledge varies according to the way it is represented. While there may be universals in understanding, the ways in which these are expressed and communicated influences how people (including philosophers) come to grasp them. Philosophy is thus born in the first age as an exercise in communication, shaped by the particular kinds of signs and sign systems employed in the process (language, symbologies, etc.).

Socrates' brilliant student Plato may have been the first to complete a study between the "forms" of knowledge and its "nature." The basis of his philosophical approach is called, appropriately, the Doctrine of Forms, which divides existence into two realms — an "intelligible realm" of perfect, eternal, and invisible Ideas, and a "sensible realm" of concrete, familiar objects. The latter that can be known through the senses as imperfect copies of the Ideas, which are innate. Thus, the principles of mathematics and philosophy, discovered by inner meditation of the Ideas, constitute the only true knowledge. But Plato was obviously not aware of the intrinsic connection between forms and objects in the semiotic sense, as Deely insinuates, even though he used it as the basis of the constitution of philosophy as a mode of understanding the connection itself.

Platonic philosophy rejected any system that claimed to explain knowledge on the basis of sensory experience. A circle, for instance, is a form that no one has ever seen. What people actually see are approximations of the ideal circle. When geometers define a circle as a series of points equidistant from a given point, they are referring, in effect, to logical ideas, not actual points. "Circularity" therefore is an innate mental notion that has greater reality than circular objects because it is a perfect model of them. An object existing in the physical world may be called a "circle" insofar as it resembles the form "circularity." But, then, what is a circle if not the sign used to represent it (a circular diagram on a page, for instance)? How is it possible to differentiate between the two? One constitutes the other. That is, in effect, the central tenet of semiotics. Any form X (a circle, a triangle, etc.) stands for an idea Y (circularity, triune-ness, etc.) by virtue of a "stands for" relation, *X stands for Y*, or simply, $X = Y$.

Aristotle, who began study at Plato's Academy in 367 BC, ranks among the most influential thinkers of the western world, not only because he defined the basic concepts and principles of many of the theoretical sciences, including logic, biology, physics, and psychology, and developed a set of rules for scientific investigation that are used to this day, but because (as Deely argues) he made the study of the $X = Y$ relation the basis of philosophical understanding, thus implicitly verifying another tenet of semiotics, namely that objects cannot be studied in isolation without this relation. The act of classification is a semiotic act, since it gives form (X) to an otherwise indefinite object (Y). A "tree" becomes a "tree" when we say it does, otherwise it remains an indistinct object in the domain of flora. Aware of this relation, it is thus little wonder then that the Greek philosophers in the first age of philosophy became obsessed with the study of forms and form systems; i.e., with symbols, languages, and all the other forms that the mind has made possible and which have come to constitute the domain of knowledge ever since.

As is well known, the first definition of the *sign* as a physical *symptom* comes from Hippocrates, the founder of Western medical science, who established *semeiotics* (from *semeion* ''mark, sign'') as a branch of medicine (Nöth 1990: 45; Sebeok and Danesi 2000: 12–14). The physician Galen of Pergamum further entrenched *semeiotics* into medical practice more than a century after Hippocrates, a tradition that continues to this day in various European countries. But, as Deely correctly asserts, the true awareness of the sign as a study of how ''things (*X's*) stand for other things (*Y's*)'' became the prerogative of philosophers around the time of Aristotle who argued that the $X = Y$ relation crystallized from observing the actual things that exemplified it in the world. In effect, Aristotle had discovered the ''natural sign'' as foundation of rudimentary knowledge. No wonder, then, that together with the Stoic philosophers, he took it upon himself to investigate the ''stands for'' phenomenon more closely, laying down a tripartite theory of the sign that has remained basic to this day. Accordingly, there is: (1) a physical part of the sign (e.g., the sounds that make up a word such as *red*); (2) a *referent* to which it calls attention (a certain category of color); and (3) the evocation of a *meaning* (what the referent entails psychologically and socially). Aristotle emphasized that these three dimensions were simultaneous in the $X = Y$ relation.

Because this first age of understanding involved a constitution of the sign as a relation, not a simple connection of form and object, Deely is thus able to explain in a radical new way why the ''paradox debates,'' spearheaded by Zeno of Elea (fifth century BC), were actually semiotic debates. Although one can use logic to reason about the world, Zeno argued, the world cannot be contemplated with words and human ideas easily because it exists as a single, undifferentiated substance. With a series of brilliant arguments, which have come to be known appropriately enough as ''Zeno's paradoxes,'' he sought to show how logical (Aristotelian) modes of inquiry can betray and mislead us. One of his famous paradoxes asserts that a runner cannot reach a finish-line because, as logical thinking would have it, the runner must first traverse half the distance to the line; then half of that distance; then half of that new distance; and so on ad infinitum. Because of the infinite number of bisections that exist in such linear paths, Zeno concluded that one could never travel any linear distance in a finite period of time (at least logically). But our sense of sight cannot be denied, since the runner does, in fact, traverse that line! With arguments such as this one, Zeno wanted to demonstrate the logical impossibility of motion. Shortly after, Democritus, joined the debate on ''sign theory'' by arguing that objects could, in fact, only be understood as sensory things, i.e., as things to which we can only react with our senses. Democritus formulated the first comprehensive statement of

deterministic materialism by which all aspects of existence can be reduced to the operation of physical laws. In contrast, the Sophists — a group of traveling teachers who became famous throughout Greece towards the end of the fifth century BC — denied the existence of objective knowledge. They were, in a certain sense, the forerunners of modern-day postmodernists.

3. The second age: Awareness of the aign

Before reading Deely's work, I was convinced, as a historian of semiotics myself, that the theory of the sign started with Hippocrates. But Deely's arguments in the second section of his book have changed my mind and, I suspect, will change the mind of other semioticians. As Deely asserts, the first true theory of the sign is the one formulated by St. Augustine, since St. Augustine was the first great thinker in human history to raise awareness of the sign as a relational construct ($X = Y$), that is, as "something that stands for something other than itself." It is this "consciousness raising" that brought about the second great philosophical age — the so-called Latin age when an emerging and developing Christian theology became — thanks in great part to St. Augustine — the mainstream "force" in shaping western philosophical traditions. Before St. Augustine, Epicureanism, Stoicism, Skepticism, and Neoplatonism were the main ideological "forces" in western philosophy. The Epicureans believed the aim of human life to be the achievement of the maximum amount of pleasure. In contrast, the Stoics taught that one can achieve freedom and tranquillity only by becoming insensitive to material comforts and dedicating oneself to a life of reason and virtue. The Skeptics contended that humanity would never be able to attain knowledge or wisdom and that the only path to happiness lies in a complete suspension of judgment about the nature of reality. And the Neoplatonists, who were important rivals of the early Christian thinkers, argued that only by ridding themselves of their dependence on bodily comforts, becoming one with God, could people gain happiness.

By the third century AD, Christian scholars broke away from such paradigms, attempting to combine the religious teachings of the Gospels with the philosophical concepts of both the Greek and Roman schools of philosophy. St. Augustine was the first to reconcile the Greek emphasis on reason with Christian beliefs. Like Plato, he viewed the soul as a higher form of existence than the body and stressed the need to contemplate ideal forms. But it is his theory of the $X = Y$ relation that, as Deely cogently argues, laid the foundation for a new enlightened age of intellec-

tual understanding, not a ''dark age'' of philosophy, as it is so often and erroneously characterized.

The Latin translation of *semeion* as *signum* is probably what gave St. Augustine the idea that there is a distinction to be made between the natural signs (*signa naturalia*), as studied by the Greek physicians, and conventional signs (*signa data*), as invented by humans to grasp the world. Awareness of this distinction is, in Deely's assessment, the defining moment in the history of both semiotics and philosophy. A natural sign is one that is present in Nature (a color, a sound made by an animal, etc.); a conventional sign, on the other hand, is one invented by human ingenuity to make sense of things. St. Augustine also suggested that there was an interpretive component to the sign. This was consistent with the *hermeneutic* tradition established by Clement of Alexandria, the Greek theologian and early Father of the Church, who saw the meaning that a writer intended as being influenced by linguistic factors and relevant historical sources.

For St. Augustine, natural signs included anything that, by itself, has no ''intention'' of signifying anything — such as smoke, which signifies ''fire,'' and facial expressions, which manifest unseen emotions. Words, on the other hand, are conventional signs that are constructed on purpose to communicate something other than the sounds (or letters) that constitute them. And it is through these that humans come to understand the world of culture. The world of the spirit belongs to God and can only be sensed through the ''spiritual'' signs that God makes available, such as the miracles. St. Augustine also argued that nonverbal signs (nodding, gesturing, etc.) are really ''visible words,'' thus interconnecting the verbal and nonverbal dimensions of semiosis in a unitary way, even though the verbal one is the most productive one. What St. Augustine suggested — for the first time ever — was that the meanings captured within one system of signs (the verbal) are found in other systems (nonverbal ones) in parallel ways.

Most significantly, St. Augustine alluded specifically to the interconnection between signs and referents. He asks, with great acumen: ''But how is it that a word which is not yet formed in the vision of the thought? How will it be like the knowledge of which it is born, if it has not the form of that knowledge, and is only now called a word because it can have it?'' (cited in Perron and Danesi 2003: 32). He concludes that a sign is ''something in our mind,'' and that ultimately the two dimensions of representation — the form *X* and what it stands for *Y* — are linked because they are felt have an intrinsic *raison d'être*, so that ''in what manner each thing is known, in that manner also it is thought'' (cited in Perron and Danesi 2003: 33).

Plato viewed representation and especially language as separate from experiential processes — a viewpoint that the French philosopher René Descartes entrenched later into Western philosophy by claiming that non-verbal forms of thought proceeded without logic, and so could not be studied scientifically. But, as St. Augustine argued long before Descartes, even the most abstract forms of reasoning are tied to the content they encode.

St. Augustine's views lay largely unnoticed until the eleventh century, when interest in the nature of human representation was rekindled by Arab scholars who translated the works of Plato, Aristotle, and other Greek thinkers. The result was the movement known as Scholasticism. Using Greek classical ideas as their intellectual framework, the Scholastics wanted to show that the truth of religious beliefs existed independently of the signs used to represent them. Within this movement there were some — the nominalists — who argued that "truth" was a matter of subjective opinion and that signs captured, at best, only illusory and highly variable human versions of truth. The French theologian Peter Abelard proposed an interesting compromise to the debate, suggesting that the "truth" that a sign purportedly captured existed in a particular object as an observable property of the object itself, and outside it as an ideal concept within the mind. The "truth" of the matter, therefore, was somewhere in between the Scholastic and nominalist accounts.

No doubt the greatest intellectual figure of the latter part of the second philosophical age was St. Thomas Aquinas, who combined Aristotelian logic with Augustinian theology into a comprehensive system of understanding that came to be the acclaimed philosophical system of Roman Catholicism. In his *Summa theologica*, Aquinas constructed a theoretical structure that integrated classical logic with religious experience. For Aquinas, the truths of science and philosophy were discovered by reasoning from the facts of experience, whereas the tenets of religion were beyond rational comprehension and, therefore, had to be accepted on faith.

Awareness of the power of the sign in the second age of philosophy culminated with the views of John Duns Scotus and William of Ockham. Both were adamant non-rationalists. Duns Scotus argued that Divine will was prior to Divine intellect and created, rather than followed, the laws of nature and morality. William of Ockham acerbically denounced Scholastic universalism, stressing that abstract entities were merely the result of words referring to other words, rather than to actual things.

However, it was not such radical views of signification that endured. It was, on the contrary, the legacy of Classical rationalism that continued well into the fifteenth and sixteenth centuries when the revolutionary discovery of heliocentricity by Copernicus, the geographical explorations of

the unknown world, and the rise of commercial urban societies gave this persuasive form of philosophical thinking a more mechanistic and materialistic quality. The medieval view of the universe was supplanted by a picture of the world as a vast machine whose separate parts worked according to physical laws without purpose or will. In the new intellectual climate known as the Renaissance, reason and experience became the sole standards of truth, although God was still given a critical role as the grand designer and operator of the machine.

At first it was Plato's rationalistic philosophy that came to the forefront, primarily because of the efforts the Florentine intellectual, Marsilio Ficino, who translated Plato's writings into Latin. But the Renaissance also spawned and encouraged a new, freer mood of debate. Out of this fertile intellectual terrain came the first major break with Platonic-Aristotelian rationalism. It was the English philosopher and statesman, Francis Bacon, who persuasively criticized Aristotelian logic on the grounds that it was futile for the discovery of physical laws. He called for a scientific method based on inductive observation and experimentation. Paradoxically, both Bacon's and Galileo's emphasis on induction as a method of discovery led, by the late Renaissance, to the entrenchment of Aristotle's idea that a meaningful understanding of reality could be gained only by exact observation and logical thinking. By the seventeenth and eighteenth centuries that very idea was extended to the philosophy of mind. Philosophers such as Thomas Hobbes, René Descartes, Benedict Spinoza, Gottfried Wilhelm Leibniz, and David Hume assumed that the mind could, and should, be studied as objectively and as mechanistically as the objects of Nature. In contrast to Bacon and Galileo, they put philosophical and scientific inquiry back on a deductive course. Descartes, for instance, refused to accept any belief, even the belief in his own existence, unless he could "prove" it to be necessarily true. And it was Descartes who gave the Platonic mind-body problem its modern formulation, known as "dualism." Descartes was, however, unable to resolve the fact that two different entities, the mind and the body, can so affect each other. The English philosopher Thomas Hobbes provided his own solution to the mind-body problem by reducing the mind to the internal activities of the body. For Hobbes, sensation, reason, value, and justice could be explained simply in terms of matter and motion. The Dutch philosopher Benedict Spinoza also accepted Cartesian deductivism as the only meaningful form of inquiry. But, in contrast, he proclaimed the pantheistic view that the mind and the body were aspects of God, explaining them as parallel forms of the same substance. The British philosopher and historian David Hume went somewhat against this deductive grain. But, in other ways, he had an even greater impact on transforming the study of

mind into a mechanistic methodology by stressing the need to use mathematical techniques to investigate all forms of existence.

A notable exception to the emergence of "scientism" in philosophy (as it has come to be known) can be found in the *Ars logica* and *Tractatus de signis* of John of St. Thomas, or John Poinsot, who saw the study of signs as the only means of gaining a true understanding of the mind. His is the first true attempt after St. Augustine to make the study of *signum* as the pivot in philosophical inquiry. Poinsot argued that the essence of understanding lay in a triadic relation whereby one thing, X, represents something other than itself, Y, "to a cognitive power."

It was Deely himself, actually, who introduced Poinsot to the contemporary world of semiotics, making Poinsot's ideas better known to a large modern audience of semioticians (see Deely's 1985 edition of Poinsot's 1632 *Tractatus de Signis*). Poinsot divided what he called "cognitive power" into four categories. First, there is the *productive* form of cognition, which is "the power itself which elicits an act of knowledge" (Perron and Danesi 2003: 42). Second, there is the *objective* form, which literally inheres in any object "which stimulates or toward which a cognition tends, as when I see a stone or a man" (Perron and Danesi 2003: 42). Third, there is *formal* cognition, which "is the awareness itself whereby a power is rendered cognizant, as the sight itself of the stone or of the man" (Perron and Danesi 2003: 43). Fourth, there is *instrumental* cognition, which "is the means by which the object is represented to the power, as a picture of Caesar represents Caesar" (Perron and Danesi 2003: 43).

4.   The third age: The modern theory of the sign

As mentioned at the start of this essay, it was the British philosopher John Locke who wanted to introduce the formal study of signs into philosophy in his *Essay concerning human understanding*. Locke thus ushered in the modern era of sign theory, by claiming that representation ($X = Y$) and understanding cannot be studied separately. But the formal study of the sign had to await several centuries. It was, in fact, in the nineteenth century that such study was undertaken by the Swiss philologist Ferdinand de Saussure and the American philosopher Charles Sanders Peirce. Working independently of each other, the two scholars took it upon themselves to provide a scientific framework that made it possible to envision an autonomous field of inquiry centered on the sign. The subsequent development of semiotics in the twentieth century as a distinct scientific domain, with its own methodology, theoretical apparatus, and corpus of findings, is due to the efforts of Saussure and Peirce.

But their approach to the sign could not have crystallized without the debates on Cartesian dualism in the third age of philosophy — known as the modern age. Locke and the Irish philosopher George Berkeley attacked dualism, arguing that knowledge was not independent of experience. For Locke, all information about the physical world came through the senses and all thoughts could be traced to the sensory information on which they were based. Berkeley cast serious doubts on our ability to know the world outside the mind itself. He maintained that no evidence for such a world existed because the only observable things are sensations that are within the mind. But neither Berkeley nor Locke developed a "science of the sign" as such. Nevertheless, they laid down the foundation for the modern theory by arguing that the $X = Y$ relation was crucial to understanding the mind-body dilemma.

The debates in philosophy following Locke's and Berkeley's rejection of dualism revolved, in fact, around the nature of the $X = Y$ relation. Immanuel Kant, for instance, suggested that the mind imposed form and order on all sensory experience, and that this could be discovered by simple reflection. Georg Wilhelm Friedrich Hegel argued that reality was subject to mental (signifying) processes, although there existed a rational logic that governed them. Karl Marx developed Hegel's philosophy into the theory of dialectical materialism by which he claimed that matter, not the mind, was the ultimate reality. Friedrich Nietzsche led the Romantic revolt against reason and logically-planned social organization by stressing natural instinct, self-assertion, and passion. Charles Sanders Peirce can also be included initially in the debates, since it was he who formulated a theory of knowledge based on the sign. John Dewey developed Peircean theory further into a comprehensive system of thought that emphasized the biological and social basis of knowledge, as well as the instrumental character of ideas. Edmund Husserl stressed the phenomenological basis of all cognition. For Husserl, only that which was present to sensory consciousness was real. Phenomenology has, since Husserl, come to be a very powerful movement dedicated to describing the structures of experience as they present themselves to consciousness, without recourse to any theoretical or explanatory framework. Alfred North Whitehead revived the Platonic theory of forms to show the failure of mechanistic approaches to reality. Bertrand Russell applied the methods of logic, mathematics, and physics to the investigation of human understanding, ultimately abandoning his rationalistic stance due, in large part to Kurt Gödel's undecidability theorem which demonstrated, once and for all, that human logical systems were essentially "faulty" because some propositions on which any logical system is in part based are unprovable, given that it is possible, using the symbols of the system, to construct an

axiom that is neither provable nor disprovable within the same system (Gödel 1931). Finally, Martin Heidegger combined the phenomenological approach of Husserl with an emphasis on emotional experience into a modern form of Nietzschean nihilism.

The modern age of philosophy culminates with the establishment of scientific psychology by Wilhelm Wundt in 1879 in Leipzig, which coincided with the advent of Darwinian evolutionary theory (Darwin 1859) and especially with Darwin's contention (1871, 1872) that animal behavior constituted a valuable analogue for human mental functioning. In 1895, Conway Lloyd Morgan published the first true textbook summarizing the goals and methods of scientific psychology. It is somewhat humorous to reflect, in hindsight, on the practice of the early psychologists of wearing white lab coats, thus bestowing upon their craft the symbolic connotations associated with laboratory experimentation in the physical sciences. As Flanagan has aptly remarked, the perception was forged at the time that metaphysics and epistemology were to be viewed as no more than "harmless amusements of fundamentally unrealistic minds," while the new scientific psychology was to be seen as getting "on with studying the real thing" (1984: xi). The precise observation and measurement of mental behavior gave the fledgling enterprise of psychology its scientific personality. The practice of controlled experimentation, the use of randomization in subject selection to comply with the requirements of Gaussian statistical theory, and the utilization of artificial tasks for subjects to perform under laboratory-like conditions are the modern-day descendants of this enterprise. Psychology continues to have great importance in the Western word because of the propensity in that world to accept mathematically-reported observations as somehow more significant, or "real," than other kinds. It should, therefore, come as little surprise to find that since the 1950s the idea that conscious intelligence works according to procedures that can be quantified and simulated by computers has become part of the discourse and practice of psychology.

But, having said all this, it is also true that semiotics as a "science" of the sign could not have crystallized without the advent of psychology, as Saussure makes clear in his *Cours de linguistique générale* (1916), where he even makes sign theory a branch of psychology. This would explain why the aim of modern semiotics has since been to understand how signs encode or portray objects, ideas, and events, even though they may not be physically present for the senses to cognize or recognize. The displacement property of signs endows human beings to think about the world beyond the stimulus-response realm to which most other species are constrained, and thus to reflect upon it at any time and in any situation whatsoever.

5.   The fourth age: The way of signs

The fourth age is our current "postmodern age." As Deely cogently argues, it is characterized by a view of the sign as a as the dominant *structure* in human cognition that mirrors the innate structures in the sensory, emotional, and intellectual composition of the human body and the human psyche. In his *Cours*, a textbook put together after his death by two of his university students, Saussure used the term *semiology* to designate the field he proposed for studying these mental structures. Because of this he became, *ipso facto*, the founder of the modern-day science of signs. But while his term is still used somewhat today, the older term *semiotics* is now the preferred one. It is interesting, in fact, to note that Saussure was not apparently aware of the work of St. Augustine and John Locke before him or, at least, that he did not consider it as important for a systematic study of the sign.

Signs are not forged in a totally random fashion; nor do they refer to things in a haphazard way. They beget their forms and meanings in *structured* ways, Saussure claimed. What allows a speaker of English to determine the different meanings of, say, *sip* versus *zip*? It is, of course, the initial sounds of the two forms. This differentiation feature brings out the essence of Saussurean method, which aims to identify signs in terms of a binary opposition technique, whereby some minimal feature in a sign is thought to be sufficient to keep it differentiated from all other signs of the same kind. Binary structure is found in all human meaning systems. In music, for instance, a major and minor chord of the same key are perceivable as distinct on account of a half tone difference in the middle note of the chord; the left and right shoes of a pair of shoes are identifiable in terms of the orientation of the shoe; and so on.

Structuralism continues to be a force in semiotics, due mainly to the work and efforts of the late Thomas A. Sebeok, who adapted the pioneering works of biologist Jakob von Uexküll and the Estonian cultural semiotician Jurij Lotman to form a framework for studying semiosis across species, thus transforming structuralism into a more comprehensive mode of inquiry, based on Peirce's triadic view of semiosis (see, e.g., Sebeok 2001). It is beyond the present essay to go into any detailed discussion of Peirce's groundbreaking work. Suffice it to say that it is no coincidence, as Deely indicates, that Peirce was a philosopher and has become the most important figure in semiotics today. Peirce provided a fundamental typology of signs that is being applied across the world to the study of semiosis. According to Peirce, there is a "firstness," sensorial dimension to semiosis that allows humans to simulate the world as they experience it, leading to the forging of iconic signs. This interacts with a

"secondness" dimension — a tendency to relate referents to each other in spatiotemporal terms — and, thus, leading to the production and use of indexical signs. These two dimensions interact with a "thirdness" dimension, which is constituted by readily forged systems of signification, leading to the learning and use of symbolic signs. The triadic "interaction" is unique among species, making it possible for humans to refer not only to the world of "reality," but also to conjure up anything that comes to their fancy. As Eco argues (1976: 26), this ability is a powerful one indeed. When we use words such as *unicorn*, *mermaid*, and *elf*, for example, we are doing exactly this. As Prometheus stated in Aeschylus' great ancient drama *Prometheus bound*, the capacity for using signs has ensured that "rulers would conquer and control not by strength, nor by violence, but by cunning."

6.   Concluding remarks

As mentioned at the start of this essay, Deely's *Four ages* is comparable to the great textbooks of human intellectual history. In the same way that Euclid's *Elements* bestowed systematicity and unity upon the study and practice of geometry in antiquity through its coherent synthesis of geometrical concepts and techniques, so too does Deely's *Four ages* provide the basis upon which to build a single discipline from an amalgam of philosophical and semiotic concepts. Deely's textbook opens up a true possibility for realizing Locke's desideratum of a "semiotic" approach to all knowledge — a desideratum that is fomenting throughout the world of semiotics (as can be seen in the monumental collection of studies edited by Posner, Robering, and Sebeok 1997–1998).

In a sense, semiotic analysis is comparable to solving a jigsaw puzzle. The goal of the puzzle-solver is to figure out how the pieces of the puzzle fit together to produce the hidden picture that they conceal as disconnected pieces. But solving the jigsaw puzzle tells the solver nothing about why he or she is fascinated by the puzzle in the first place, nor what relevance it may have to life. Analogously, the semiotician seeks to figure out how the bits and pieces (signs, concepts, etc.) cohere into larger patterns to produce the "broader picture." It is this sense of the "broader picture" that Deely's *Four ages* imparts to its reader. I have no doubt that philosophers will come away from this book with the singular verity — expressed so well by Charles Peirce (*CP* 1.538), and with which Deely himself (cf. 2001: 742) concludes his monumental treatise — that as a species we are inclined by our nature to "think only in signs."

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Suggestions of a Neoplatonic semiotics:
Act and potency in Plotinus' metaphysics

CURTIS HANCOCK

Abstract

In Four ages of understanding, *John Deely identifies four stages of progress toward a science of semiotics. The first of these ages is ''preliminaries to the notion of sign.'' This is the age of ancient classical and Hellenistic philosophy (600 BC–400 AD). A prominent figure in this age is Plotinus (205–270), the founder of the Neoplatonic school. A laconic description of Plotinus' philosophy is that it is a mystical monism. For a monist, to be real is to be one. A mystic, Plotinus asserts, is someone who knows ultimate reality in a way that is beyond being and intelligence. Central to unfolding Plotinus' mystical monism is the way he adopts the act (energeia)/ potency (dynamis) distinction from Aristotle. This distinction explains that Plotinus is not an ontologist, because reality (unity) transcends being (unity-in-plurality). Ennead II, 5 (25) is Plotinus' definitive work on act and potency. Once one explains how these principles operate in Plotinus' metaphysics, one can suggest what a philosophy of signs or ''semiotics'' looks like in Neoplatonism.*

Keywords: unity; act; potency; logos; emanation; reality.

John Deely's *Four ages of understanding* (2001) is a magisterial achievement that focuses on the nature and development of the sign in the history of Western philosophy. The formal philosophical examination of the sign is *semiotics*, to which discipline John Deely has contributed significantly.[1] Early in his book, he describes the four ages of progress toward a science of semiotics: "preliminaries to the notion of sign; the development of the notion itself; forgetfulness of the notion; recovery and advance of the notion" (p. XXX). The age of "preliminaries" refers to ancient philosophy, including Classical Greek philosophy (approximately

600 to 300 BC) and Hellenistic thought (approximately 300 BC to 400 AD); the second, the first development of the integral notion of sign, to the Latin age; the third, during which the sign is forgotten, refers to modern philosophy; the last, to the contemporary, or "postmodern," philosophical era, in which Deely hopes a recovery of the sign as an explicit project for philosophy will be realized.[2] A mature philosophy of the sign, as prescribed by Charles Sanders Peirce, will overcome the limitations of modern philosophy and will restore philosophy's right to legitimacy and leadership in culture.

In this article, I return to the pre-semiotic era, specifically to the work of Plotinus (205–270), the founder of the school of Neoplatonism. I will examine the nature of potentiality, a subject on which Deely comments in his treatment of Plotinus.[3] Since it is impossible to do this principle justice in Plotinus without discussing its correlate, actuality, I will complement Deely's study by commenting on Plotinus' assimilation of Aristotle's principles "act and potency" (*energeia* and *dynamis*), which is the twofold formal subject of *Ennead* II, 5, the twenty-fifth treatise that Plotinus wrote.[4] By examining this treatise, I can show that *energeia* and *dynamis* are necessary for a comprehensive grasp of Plotinus' metaphysics. By providing this summary and commentary, I can subsequently indicate how act and potency imply a Neoplatonic semiotics.

Before commenting on II, 5 (25), a few remarks about the unique nature of Plotinus' philosophy are in order. That Plotinus' metaphysics is distinctive and in some respects discontinuous with the ontologies of his predecessors is something Deely recognizes and appreciates.[5] As Deely explains, Plotinus' thought differs from earlier ontologies, because Plotinus is no ontologist at all. Instead, his philosophy is an henology (from the Greek *to hen*, meaning one). Henology differs significantly from ontology (from the Greek *to on*, meaning being) in its account of reality. Whereas an ontology asserts that *to be real is to be*, an henology holds that *to be real is to be one*.

The distinction saturates Plotinus' writings. The following quotation from VI, 9 (9) illustrates the primacy Plotinus gives unity:

It is by The One that all existents are existents. This is equally true of those that are primarily existents and those that in some way are simply classed among the things that are real, for what could exist were it not one? Not a one, a thing is not. No army, no choir, no flock exists except it be one. No house, even, or ship exists except as the unity, house, or the unity, ship; their unity gone, the house is no longer a house, the ship is no longer a ship. Similarly quantitative continua would not exist had they not an inner unity; divided, they forfeit existence along with unity. It is the same with plant and animal bodies; each of them is a unity; with

disintegration, they lose their previous nature and are no longer what they were; they become new, different beings that in turn exist only as long as each of them is a unit. (VI, 9 [9], 1, 1–10)[6]

This quotation justifies Plotinian monism. Plotinus' writings are an attempt to show that once the philosopher takes the principle that reality is unity to its logical conclusion, he or she must conclude that only one reality exists.[7] Moreover, since unity is the true object of philosophical science, ontology cannot be metaphysics in the true sense for Plotinus. Being represents a partial separation from reality, unity. Ontology, the science of being, examines form as its object. A being is a determinate nature (*ousia*), an entity with a form (*eidos*), an intelligible nature, distinguishable from other entities.[8] On the other hand, henology examines reality as it altogether transcends differentiation of any kind. This means for Plotinus, reality is not being, but a transcendent unity that is beyond the determination, specificity, differentiation, and plurality of being.[9]

Being, comprehensively understood, is the realm of Platonic forms, which Plotinus combines with Aristotle's self-thinking thought. Being, then, refers to a pure intellect, divine *Nous*, a living eternal intelligence that contemplates the sum total of all intelligibilities (Forms), which are the contents of its own mind.[10] And yet, if unity is not being, there is a One or a greater reality transcending divine Intelligence. Being, accordingly, occupies a secondary or derivative place in Plotinus' metaphysics.[11]

To express the coordination in Plotinus' worldview of being with transcendent unity, ontology with henology, Deely relies on the work of Leo Sweeney. In an excellent article, ''Basic principles in Plotinus's philosophy,'' Sweeney distills Plotinus' metaphysics to three principles: (1) *monism*: to be real is to be one; (2) *perfection*: to be real is to be good; (3) *causality*: whatever is prior in the universe is superior to whatever is subsequent.[12] These principles enable Plotinus to explain comprehensively the universe as consisting of a first hypostasis (ultimate reality), the One/Good (Plotinus' supreme God), out of which all other realities emanate. Since the Good always communicates its goodness (*bonum difusivum sui*, as the Schoolmen would later say under the influence of Neoplatonism), successive, descending gradations of reality necessarily emanate from the One/Good. Existents subsequent to the One reflect a decrease of reality (unity) and a gradual increase of unreality (multiplicity). So emerges the first One-In-Many, the Divine Intelligence (*Nous*), the second hypostasis, the universe of being (intelligence and intelligibles). In turn, the Intelligence continues emanation, generating out of its own perfection another one-in-many, the World Soul (the third hypostasis, and the cosmic first principle of Stoic philosophy), whose perfection makes intelligible and

animate everything in the physical world, making it a *cosmos* instead of a *chaos*. Just as Intelligence is inferior to the One, so Soul is less than Intelligence.[13]

The universe of Intelligence primarily is the universe of being. All subsequent beings are *logoi* of being. For Plotinus a *logos* is a higher reality on a lower level of emanation. Hence, while the Intelligence is a *logos* of the One, the World Soul is a *logos* of the Intelligence. The universe of Soul is the *logos* of Being, meaning it is Being on a lower level of reality, a lesser level of emanation. Since being primarily is the universe of Divine Intelligence and Intelligibles (Forms), all beings posterior to Divine Intelligence are its *logoi*.[14]

Being refers to intelligibility, which implies a corresponding intelligence to make it its object. There is being wherever there is intelligence or intelligibility. Out of Intelligence and Soul emanate all beings until being can be no more, that is to say, until the emanation of perfections dies out against the ultimate sterility of prime matter, which constitutes "absolute indefiniteness."[15]

To relate these observations to Deely's consideration of potentiality, Plotinus' universe consists of an ultimate principle of perfect active power (*dynamis ton panton*, II, 8 [30], 10, 1), the One/Good. This principle produces a universe of beings, entities whose nature is unity-in-difference. These ones-in-many gradually descend from the Divine *Nous* to the World Soul to nature and the lowest forms of physical matter, which adjoin the inertness or sterility of imperfection, as emanation plays out and unreality, prime matter, alone remains.[16] Prime matter is a stark other (*heteron*), contrary to the goodness and oneness of reality, and the principle of imperfection.[17] But since prime matter is pure passive potency, then passive potency defines the opposite of reality, and announces metaphysically where unreality begins.[18] So Plotinus "bookends" emanation with two principles of potency: absolute infinite *active power* (the One/Good: *panton ton onton dynatotaton*, V, 4 [7], 1, 25) and absolute, imperfect *passive potency* (prime matter: *to dynamei on*, II, 5 [25], 1, 1).

1.   A commentary on *Ennead* II, 5 (25)[19]

My remarks on Plotinus' text will reinforce the above observations, make evident why act and potency are central principles in Plotinus' metaphysics, and provide pointers for a Neoplatonic semiotics. Hereby, I will complement John Deely's study on Plotinus.

One of the most important features of *Ennead* II, 5 (25) is that it does not treat simply of *hē energeia* (act) and *hē dynamis* (potency) but, in the

interest of a more subtle and complete analysis, adds to these the notion *to energeia on* (being in act) and *to dynamei on* (being in potency). These distinctions Plotinus sets down in the first two of the five chapters of the treatise. It is also significant that Plotinus separates these expressions into two sets: *hē dynamis* as the correlate of *hē energeia*; *to dynamei on* of *to energeia on*. By insisting that this order be respected, Plotinus indicates that each term has a distinct and technical meaning. Indeed, his use of these terms is obviously careful throughout the treatise. Before I identify to what philosophic purpose Plotinus puts these terms, I will record the meaning of each.

1.1. *Being in potency (to dynamei on)*

It is best to begin with this distinction because it describes sensible matter and thereby is the basis of illustrations Plotinus employs. Plotinus defines being in potency as something which can become something else after what it already is (1, 10–15). For example, bronze is a being in potency because it can become a statue; water, because it can become something else altogether, such as air or even bronze (1, 12–21). In the first instance, bronze retains its essence but acquires additional form through an extrinsic agent (the sculptor); in the second, water actually loses its nature, acquiring from outside another essence. From these helpful examples, we may infer that something is in potency when it can receive either accidental or substantial form from an extrinsic cause. Hence, being in potency is passive *dynamis*: that which can be a substrate (1, 29–31) for another or rather that which can be formed by another (*par' allou*: 2, 33–34).

   That Plotinus follows Aristotle in this description of being in potency is indicated on several counts. First, the Greek expression *to dynamei on* is the precise phrase that occurs in Aristotle's frequent remarks on passive potency.[20] Second, Plotinus' repeated comments on bronze in II, 5 (25) echo Aristotle's common use of *chalkos* (bronze) and *andrias* (statue) to illustrate being in potency.[21] Third, Plotinus' comment early in the text that being in potency cannot belong to the intelligible world on grounds that no change occurs There (1, 6–8), coupled with his examples of substantial and accidental change in bronze and water, signals that being in potency functions as the principle of change for his philosophy just as it does for Aristotle's. Being in potency is the basis for change because it can acquire form successively. Because of this third parallel, Plotinus is willing to largely accept Aristotle's doctrine of prime matter as pure passive potency (chs. 4–5).

Finally, Plotinus also accepts Aristotle's distinction between prime matter (*protē hylē*) and second matter (*eschatē hylē*), as is indicated by his illustrations regarding bronze (see especially 2, 1–8). Prime matter is being in potency in an absolute sense, while second matter is such only relatively. The latter is already a composite being (matter and form), but it can acquire other forms, accidentally or substantially.

1.2.   *Being in act (to energeia on)*

Knowledge of *to dynamei on* prepares one for its correlate, *to energeia on*, a phrase which also appears in Aristotle. Being in act refers to something that is completed by form (2, 3–8). Accordingly, *to energeia on*, unlike *to dynamei on*, may belong in the intelligible world, for intelligible beings are completed by form. However, the matter that is There completed by form is "intelligible matter" (see II, 4 [12], 1–5) and potency (*hç dynamis*) rather than being in potency (*to dynamei on*). Unlike sensible matter, the matter in the Intelligible World (the world that constitutes the objects of *Nous*, the second hypostasis) is indeterminate but real and, as such, truly unites with form. That is to say, intelligible matter and form are only logically distinct (II, 5 [25], 3, 8–12). In the intelligible world there is no sensible matter, no being in potency, and therefore no change. In the sensible world, however, every being in act is subject to change and therefore is also a being in potency. Each sensible thing is a composite of matter and form but is in potency to some extrinsic being. Therefore, with the exception of prime matter, every being in potency is also a being in act.

Plotinus asks (2, 3–8) an important question regarding the relationship of being in potency to being in act: Where there is change, does being in potency really become being in act or is the resulting being in act altogether different from the prior being in potency? There is no simple answer to this question. The resulting being in certain ways is the same but in other respects is different from the original being in potency. This is true whether one considers the being in potency as second or as prime matter. If second matter is considered in itself, that is, as being an act, then it is different from the product it becomes, because every being in act is a distinct composite of matter and form. But if second matter is considered not in and of itself but relatively to whatever form it will acquire, then it is partly the same as the resulting being in act. In other words, if second matter is considered as a being in potency, it may be said in a sense to be the same as the product. It is the same in that it remains as the substrate for the newly received form. This is true, however,

only of accidental change; in substantial change the form is altogether lost and therefore cannot be part of the product.

Like second matter, prime matter is also partly distinct from and partly identical with the resulting being in act, depending on one's point of view. Since matter is never itself in act, matter is necessarily different from the resulting composite. But matter is certainly a part of the composite, since it is the ultimate substrate of the latter.

1.3.   *Act (hē energeia)*

Plotinus states that *hç energeia* is form (*to eidos*; 2, 28–31). In doing this, he follows Aristotle, whose neologism, *energeia*, became an alternate expression for *eidos* in his corpus.[22] Plotinus follows Aristotle by identifying *energeia* with *eidos*. How does *hç energeia* relate to the prior two distinctions, being in potency and being in act? Being in potency receives and becomes substrate of act (*hē energeia*). Since being in potency is passive *dynamis*, act comes to being in potency only through the agency of another (*par allou*; 2, 33–34). The resulting union of being in potency (substrate) and of act (form) brings about a being in act. Hence, *to energeia on* denotes the whole, whereas *hē energeia* denotes the part. At times Plotinus uses *hē energeia* and *to energeia on* interchangeably (3, 1–40). This is permissible in that an existent is an intelligible unity because of its form.

1.4.   *Potency (hç dynamis)*

Finally, there remains *hē dynamis*, which is ordinarily translated as "potency." How exactly does *hē dynamis* differ from *to dynamei on*? Plotinus answers that the former is active potency or power but that the latter is passive potency. Whereas being in potency is determined by another (*par allou*), potency determines itself, or rather the agent who exercises the potency determines it. Plotinus explains this through his allusion to the sculptor (*kata to poiein*; 1, 21–26). The sculptor's perfections (his or her talent, imagination, and artistic judgment) cause operations perfecting not only external objects but also the sculptor's active powers themselves. Through the sculptor's active powers (*dynameis*), he perfects himself. One and the same agent is origin and recipient of act.

Plotinus further elaborates this point through the illustrations of the knower (2, 15–26) and the moral agent (2, 34–36). Knowledge is possible through knowing powers that belong to a subject who himself is perfected (that is, acquires *energeia*) through the exercise (activities) of those

powers. Moral conduct is the result of powers (habits) that themselves are further perfected by that conduct.

Potency, therefore, is the active power of a living agent. The agent, moreover, has act through his or her own active powers, because an agent perfects himself or herself through powers and their immanent operations.

These technical distinctions furnish the principles for an analysis of the intelligible world that appears in chapter three of II, 5.[23] As noted already, if *to dynamei on* is the principle of change, it cannot belong in the intelligible world. Hence, while it is correct to call intelligible beings potencies (more precisely, active powers), it is incorrect to call them beings in potency (3, 8–22).

Being in act applies to the intelligible world because intelligible beings are composites of matter (albeit intelligible matter) and form. True, the matter There is a potency rather than a being in potency; nonetheless, it is a logically distinct constituent of an intelligible being that, as composite, may be called a being in act. Because an intelligible being is a composite of potency and act rather than of being in potency and in act, it is a real unity of parts only logically distinct. This differentiates it sharply from sensible beings, for the latter are composed of sensible matter that repels form (as Plotinus notes at III, 6 [26], 14, 29–35) and thus never really unites with its act. It is for this reason that sensible beings are poor imitations, mere shadows, feeble *logoi* of intelligible beings.

Without *energeia* belonging to the intelligible order, there could be no *energeia* in the sensible, for the sensible exists as a participant or *logos* of the intelligible. As the *logoi* of *Nous* reflect a descending hierarchy of perfections, the entire universe of beings may be considered a gradation of *energeiai*.[24]

How precisely does potency (*hē dynamis*) belong in the intelligible world? Potency is the procession out of the One which, through its own perfection and tendency (*ephesis*) reverts back to its source so as to become *energeia*.[25] Potency in emanation is that indeterminate perfection which makes possible an order of existents (*energeiai*) which are distinct from the One. Thus, Plotinus applies to production (which he describes at length in V, 4 [7]) the realization that active power and act can describe the same existent. Just as a knower or moral agent may under her own power perfect herself, so the intelligence may under its own power attain its perfection. After proceeding (*prohodos*) out of the One, it reverts (*epistrophē*) to its source, so as to contemplate and love it. In this eternal moment of contemplation it becomes *energeia*.

The indeterminate power (*hē dynamis*) which accounts for intelligible being is, of course intelligible matter, which V, 4 (7) calls "the Indefinite

Dyad'' (*aoristos dyas*; V, 4, 2, 7), showing how Plotinus borrows from Aristotle's account of the ''unwritten doctrines'' (*agrapha dogmata*) of Plato in order to explicate his own Neoplatonic theory of the generation of the hypostases. This priority of *dynamis* in the generation of the Intelligence implies an important assertion. The kinship of intelligible matter to the indeterminacy of the One (which is itself sheer active power) makes it a perfection even greater than that of being or act itself. In other words, it is intelligible matter, not form, that is the supreme perfection in the intelligible world.[26] This, of course, sharply contrasts intelligible matter with its sensible counterpart, sensible matter, which Plotinus paradoxically describes in the closing passages of II, 5 (chs. 4–5) as ''truly false'' and ''really unreal.'' As pure being in potency, sensible matter is nothing in itself; yet it is in potency all beings since it may serve as the substrate successively of all forms. In order to be the substrate of all forms, matter must never be any single form and therefore is unable to unite truly with any form. As the eternal capacity for form, matter is never itself in act. As being in potency matter is powerless to acquire form without an extrinsic agent.

   All of this places sensible matter in stark contrast with intelligible matter. As active potency informed by *energeia*, intelligible matter partly describes the multiple and dynamic interrelationships of the perfect beings which constitute the intelligible world.

2.   Suggestions for a Neoplatonic semiotics

The Greek word for sign, *semeion*, has a very limited usage in Plotinus. As a rule it refers to mathematical objects, such as points on a line or the center of a circle.[27] Beyond this literal restriction of the Greek usage, there are nonetheless grounds in Plotinus' work to situate a doctrine of signs, even if one's judgments on the doctrine are speculative and analogical. Fortunately, Plotinus' philosophy of act and potency furnishes some clues as to how signification has a basis in Plotinus' Neoplatonic philosophy.

   A sign is something that indicates something else. If so, Plotinus' doctrine of *logos* illuminates the conditions and elements of signification. A *logos* is a higher reality on a lower level of emanation. Accordingly, metaphysics for Plotinus is a universe of signs. Each existent points toward a higher existent of which it is a *logos*. For example, the movement or animation of sensible beings is a *logos* of the World Soul. The temporal or successive life of the World Soul is a *logos* or participant in the eternal

life and beatitude of *Nous*.[28] In turn, the *Nous* is a *logos* of the One/ Good.[29]

Since Plotinus is a monist, every sign (each *logos*), in the last analysis, must signify the One. This must be the case if a sign indicates something real. For a monist, there is only one reality, which Plotinus names the One/Good. However, curious consequences follow this observation. A sign must occupy the realm of unreality, for unreality is differentiation. The nature of a sign is to differ from its object, so it can signify it. Hence, signification is parasitic on a falling away from reality. In a monism whatever is different from the One is unreal. This entails that in order for a sign to exercise its proper function, it must be unreal.

But, of course, no being (and *logoi* are always beings; prime matter is beneath all *logoi*, because a *logos* must always be a being in act) is altogether unreal. It is a mixed reality, a combination of unity and multiplicity. Every being is a one-in-many. This means that to the extent any being is real, it is *identical* with the One.

This leads to the difficulty that either the sign is an identity signifying itself or the sign is an unreality signifying what is real. The latter alternative seems to be what is operative in Plotinus. The unreality of multiplicity is an appearance, not a reality, that functions as a sign of something real, one of the hypostases, and ultimately, the One.

Thus far, I have spoken of signs with reference to metaphysical objects and relations in Plotinus. But, of course, any analysis of signs is incomplete unless it addresses the presence and operation of signs in human knowledge, that is, signs in sense experience and in intellectual awareness. To supply such an account, one must engage Plotinus' philosophy of the human person. To do this effectively, one must realize that Plotinus is not only a monist. He is also a mystic. His philosophy is a mystical monism.

The above remarks on *logos* as sign are ways of signifying reality in the hierarchy or stages of emanation. Emanation expresses the generation of the universe from a downward perspective, from the level of the One through all successive *logoi*. But emanation in Plotinus is complemented by a corresponding upward perspective: a *remanation*, if you will. This is the mystical ascent necessary for the soul to find perfection, divine union with the First Hypostasis.

This mystical ascent can be charted, as the soul, retreating into its interiority, consolidates its active power, begins to achieve cognitive and affective unification, and thus becomes more like the hypostases. The soul's increasing unification, perfection, and reality is validated by literal union with ascending hypostases. This union is a sign of the soul's pilgrimage toward perfection. Union with the Soul, followed by union with the Intel-

ligence, confirms its migration toward reality and happiness. The ascent to the levels of the third and second hypostases is a sign of metaphysical perfection, which is at once descriptive of reality manifest in emanation and of unification and perfection of the human spirit. In other words, these levels are signs of the human person becoming a perfect being. They are signs of actuating (*energeia*) the power (*dynamis*) of the human person to be the Form of Human Nature in union with pure Intelligence, the second hypostasis.

In the end, neither being nor sign can apply to the One. Being and signifcation always imply a one-in-many. Mystical ascent has its signposts — union with the being of the World Soul and with the absolute Being of the Divine Intelligence. But the destination of remanation — literal union with ultimate reality, the First Hypostasis (the One/Good) — is without analogue in being. It is beyond being and signification.

Such seems to be the paradoxical character of any doctrine of signs that emerges out of Plotinus' Neoplatonic worldview. It is a doctrine that nonetheless has some character and texture in light of his doctrine of act and potency, a doctrine that illumines his account of emanation, *logos*, and, in turn, his entire metaphysics.

These speculations for a Neoplatonic semiotics are my response to John Deely's provocative remarks in *Four ages of understanding* on potentiality in Plotinus.

Notes

1. The bibliographical citations of Deely's work at the end of *Four ages of understanding* extend for five pages (Deely 2001: 765–769).
2. Just before his discussion of Plotinus, Deely looks ahead to the postmodern age and remarks:

   > Science in the modern age will establish itself principally by concentrating on the physical dimension of the outer world; mystics of all ages will concentrate primarily on the inner world; but, as we shall see, not until the emergence of the Fourth Age of understanding in postmodern times will the action of signs be sufficiently thematized to account for the interdependencies of the two realms in the constitution of integral human experience, from mystical to scientific, sensible to intelligible, through the action of signs without which there would be neither self nor world to speak about. (Deely 2001: 117)

3. Deely (2001: 122–125) comments on potentiality especially in his remarks on matter.
4. Porphyry edited Plotinus' 54 treatises and arranged them into six books of nine. Hence, he called them "the *Enneads*," from the Greek work *enneas*, meaning nine. Fortunately, Porphyry reported the chronological order of Plotinus' writings. The convention in Plotinian scholarship is to refer to the chronological order in parentheses when

citing the treatise. Hence: II, 5 (25): the fifth treatise of the second *Ennead*, the twenty-fifth Plotinus wrote.

5. See the remarks in Deely (2001: 119–130).
6. Except for a couple of adjustments, I have followed Elmer O'Brien's (1978: 73) translation of this passage.
7. That Plotinus takes his philosophy to this logical conclusion is persuasively argued by Mamo (1976: 199–216).
8. This understanding of being follows Plato and Aristotle. It appears in almost all of Plotinus' writings. It is given explicit treatment in VI, 7 (38), especially chapters 13, 17, 18, 37, and 40.
9. Accordingly, Plotinus refers to the supreme reality, The One/Good, in terms that echo Plato when speaking of the Form of the Good: *epekeina einai tēs ousias* (V, 4 [7], 2, 42).
10. See V, 9 (5), "On intellect, the forms, and being." Especially note "If the Intelligence has wisdom not borrowed from without, if it knows something, it knows it of itself, and if it has something, it has it of itself. If it knows out of itself, it is itself what it knows" (ch. 5, 4–7, my translation).
11. VI, 9 (9), 4–5 makes this exceedingly clear.
12. See Sweeney (1961: 506–516) for a definitive statement of this gradation of realities.
13. VI, 9 (9) is a definitive statement of this gradation of realities.
14. *Logos* as the manifestation of a higher reality on a lower level of emanation is explained well by Gelpi (1960: 301–315).
15. As "absolute indefiniteness," it is utterly removed from being. See III, 4 (15), 1, 1–12.
16. IV 7 (2) 3, 24–25 makes it clear that without soul matter would not exist at all.
17. In his treatise on matter, II, 4 (12), 16, 24–27, Plotinus declares that prime matter is non-being.
18. This is evident in II, 5 (25), 4–5.
19. A version of some of these comments I originally developed in an earlier article, Hancock (1994: 39–58).
20. The following texts are instances of *to dynamei on* in Aristotle. *De Gen*. Gamma, 317 b 16; *Meta*. Beta, 6, 1002 b 33; Gamma, 4, 1004 b 28; Theta, 8, 1050 b 8; Lambda, 6, 1071 b 19, Nu, 2, 1089 a 28; in this last text Aristotle explicitly identifies *to dynamei on* as the principle of change. Aristotle does not use the expression as formally as Plotinus, however, because occasionally it expresses active potency in his writings: e.g., *Meta*. Theta, 3, 1047 a 25; Delta, 7, 1017 b 1–10.
21. For examples: *De Gen*. Alpha, 10, 328 b 8–14; *Pol*. Alpha, 8, 1256 a 5–10; *De Part. An*. Alpha, 1, 640 b 23–29; *Meta*. Delta, 2, 1013 b 6–10; *Phys*. Alpha, 7, 190 a 25–27; Beta, 3, 195 a 33–40; *De Gen. An*. Alpha, 18, 724 a 23–27.
22. In *Ennead* IV, 7 (2), the first treatise in which Plotinus employs *energeia*, he appears to comment on *De Gen*. Alpha, 10, 327 b 22–26. He remarks on this text so as to refute a Stoic doctrine about mixture (*krasis*). Aristotle's text reads:

> Some things are in potency while others are in act, the ingredients of a compound can be in one sense and yet not be in another sense. The compound may be in act other than the ingredients from which it has resulted; nevertheless, each of the ingredients may still be in potency what it was before they combined.

Supported by this quotation, as well as by other passages from Aristotle (e.g., *Meta*. Zeta 3, 1029 a 29–30; 7, 1017 b 21–22; Eta 3, 1043 b 1; Theta 3, 1047 a 1–2; 8, 1050

b 2–3), Aristotle seems to say that energeia refers to that which is a distinguishable or determinate or intelligible nature, namely, an *eidos* or *ousia*. Plotinus implies the same in his criticism of the Stoics.

    Plotinus employs the term energeia 768 times (compared with Aristotle's 537 times). Hence, there are plenty of opportunities in the *Enneads* for Plotinus to indicate his agreement with Aristotle. The following treatises especially show the connection of *energeia* with *ousia* and *eidos*: IV, 7 (2); V, 9 (5); VI, 9 (9), II, 5, (25); III, 6 (26); VI, 7 (38); VI, 2 (43), V, 3 (49).

23. Chapter three is brief and elliptical. What follows is my attempt to make explicit what is implicit there.

24. *Nous* is perfect contemplation, life, and act. Thus, all products of *Nous* are ever diminishing, ever dimmer contemplations, lives, and acts. See VI, 7 (38), 17, 39; III, 8 (3), 8, 14–24.

25. It is appropriate to employ this term *ephesis* (meaning tendency or proclivity) and apply it here to the stage of *prohodos* or intelligible matter in the second hypostasis:

> this proclivity may ... be compared with what Plotinus elsewhere describes as unconscious contemplation. In the eighth treatise of Ennead 3 he asserts that all things, even down to the vegetable world, are striving (the word *ephiesthai* which brings us back to *ephesis*) after contemplation. I such an urge is the symbol of existence even among inferior beings of the world of sense, it would be foolish to deny it to the substrate (*to hypokeimenon*) of the Second Hypostasis. The likelihood is that the Dyad or Matter betrays in its *ephesis* towards the One that symbol of existence shared by all things with the smallest claim to reality. (Rist 1956: 101)

26. Rist draws this conclusion in another passage:

> Intelligible Matter, the first effluence from the One, possesses by its very indeterminacy a kinship with the One which the Forms do not possess. As we read in Enn. 2.4.3, Matter "there" is everything at the same time. It has nothing into which it can change, for it already possesses everything. This indeterminacy which can, on its return to its Source, yield any one of the eternal Forms, has of itself something more akin to the One than have these later determinations. The Forms are perfectly what they are; they are perfect being. Intelligible Matter has a shadow of the superiority of *to epekeina* in its potential of becoming *all* Real beings. (Rist 1956: 105–106)

27. For a representative list of uses of *semeion* in Plotinus, see Sleeman and Pollet (1980: 935–936).

28. See *Ennead* III, 7 (45), "On time and eternity."

29. Perhaps the *logos* as sign in Plotinus is analogous to the concept as sign in the moderate realism of Aristotle or St. Thomas Aquinas. In content or nature the concept is identical with the thing signified. However, whereas the thing has a real existence, the concept has only an intentional mode of being. Still, this analogy is problematic. For the human person and his or her knowing powers are real in every respect, not just appearances. The reality of the knower is not just the content of the concept. The reality of the *logos*, however, is the higher reality in which it participates. To the extent the *logos* or the knower are distinct from this higher reality, they are unreal.

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Two steps toward semiotic capacity: Out of the muddy concept of language*

KAREN A. HAWORTH and TERRY J. PREWITT

Abstract

As John Deely has suggested in his Four ages of understanding, *philosophia in practice is semiotic process, an engagement in the world through the action of signs. But this observation leads us to a point of contention with Deely's treatment of semiotic process itself and its connection with the more widely understood notions about language in our time. Specifically, there are major difficulties with the treacherous formal and popular nomenclature about the phenomenon of language and its philosophical connection to the ''semiology'' of Saussure and sign theory of C. S. Peirce. Our issue is with the formal use of the term ''language'' centrally and often in its technical sense as an analytical system — a way of ''seeing or looking at the world'' that is prior to and removed from the communicative sense of ''language'' — while at the same time also informally employing the term in its common and practical sense as a system for information exchanges. In fact, Deely's comprehensive annotated index helps resolve some of the issue. But taken in the context of Deely's broader argument, the problem with the definition and use of the term ''language'' somewhat stifles the attempt to revise appreciation of our arrival at the ''time of the sign'' as a species-specific capacity.*

Keywords: language, evolution, cognition, Peirce.

As an opening for the twenty-first century, John Deely presented his master work *Four ages of understanding: The first postmodern survey of philosophy from ancient times to the turn of the twenty-first century*, what we may suggest to be a culmination of at least thirty years of his contributions to the development of ideas pertinent to the Doctrine of Signs, and also the initiation of a formal discussion that will, no doubt, continue

through many of the coming decades. Deely's prodigious attention to detail in developing his argument is admirable, considering the enormity of the project; as one might expect, he shows an adept integration of ancient, Latin, modern, and contemporary/postmodern issues within an intriguing historical argument of the impacts of linguistic relativism on the course and emphasis of Western ideas. Yet the deeper argument of Deely's treatment of the subject resoundingly affirms that *philosophia* in practice *is* a fundamentally semiotic process. We may recognize today that even as early as the pre-Socratics *the sign* was instrumental in formal human inquiry, though certainly not explicit as a construct within that inquiry. As such, Deely can ground Western philosophy in a series of systems which differ with respect to their use or treatments of "the sign" and ideas about either "objective" or "inter-subjective" knowledge.

Deely's refiguring of the history of philosophy returns periodically to a key point: the accidental or sometimes intentional shifting of meanings in the process of either translating works from one cultural system to another, or reinventing parallel constructs working in the service of human understanding.[1] Both of these processes created capricious turns in the thrusts and results of inquiry through time, rendering it necessary in our time to renegotiate some texts we may now regard as prominently foundational. Even more interesting, it appears that at points along the way, especially in the modern period, philosophers inspired by ancient texts, aspiring to work in continuity with them, have sometimes projected quite new appreciations of the world onto them. In perhaps no other area of philosophy is this more true than in the modern development of the Doctrine of Signs (Deely 2001: 625–637, especially 629), the impetus for which we may attribute to John Locke and the first full systematization of which we may attribute to C. S. Peirce (see especially Deely 2001: 57, note 16, for a concise review of these connections). Throughout Deely's work, he stresses the unique semiotic capacity of humans, following Peirce's system and his own conceptual elaborations over a career devoted to a Doctrine of Signs and refinement of the idea of anthroposemiosis.

Arguments from diverse disciplines connected with human semiotic capacity are embedded in the more general treatment of the origins and evolution of *language* and *culture* — with the term "language" not always being employed from the perspective of a Doctrine of Signs. Specifically, in spite of great overlap in terminology and even method, one gets very different impressions about language from the points of view of historical linguists, psycholinguists, structural linguists, cultural anthropologists, and any of a number of philosophers of language — each with legitimate

points fit to different pragmatic ends. Perhaps the broadest distinction among the approaches is between those disciplines that include semantics within the system modeled, and those disciplines that *only* pursue "how" meaningful behaviors are created. This is certainly a "divide" within linguistics, and the differentiation can even be extended to diverse approaches to "culture" or "behavior" in areas of social science that are not focused on language per se. In anthropology, for example, Kenneth Pike's linguistically-based theory of cultural behavior (Pike 1971) employs foundational linguistic constructs for the systematic representation of cultural meaning. However, the sterile but influential revision of Pike's *etic* and *emic* concepts by Marvin Harris (1967), legitimized by reference to a then unpublished 1967 draft of Pike's work, founded a major line of materialist/behaviorist anthropology that essentially stripped *cultural meaning* from the representation of cultural patterns, and within American anthropology trumped the enormous impacts Pike's work otherwise might have had.

So the issue of what "language" is as a semiotic capacity, or whether it is a gloss for that capacity in its most fundamental sense, remains a major concern. And the topic taken up in this paper, inspired directly by Deely's book, is the use of the term "language" throughout our philosophical discourses, even in Deely's work, to represent two distinct phenomena associated with quite distinct historical, conceptual trajectories. The first of these, and the most common in usage across cultures and disciplines and central to Deely's line of argument about linguistic relativity noted above, employs "language" simply as an instrument of communication. Deely (2001: 301, note 106) designates this as the "vulgar" sense of language, and stresses that the system designated by common usage is "exapted from" the more fundamental, and we may presume more "valid," system of logical capacity. This second idea, highly emphasized by Deely throughout his work (see especially Deely 2001: 5, 9–12, 18, 55, 323, 417, 488) and consistent with Thomas Sebeok's treatments of the term, is that "language" is primarily the "human modeling system" that is uniquely manifest through the concatenation of capacities we have obtained in our evolutionary heritage.

In *Four ages* (2001: 662–667), Deely reviews a series of rules set out by C. S. Peirce in his "ethics of terminology." Among these Peirce urges: "Before proposing a term, notion, or other symbol, to consider maturely whether it perfectly suits the conception and will lend itself to every occasion, whether it interferes with any existing term, and whether it may not create an inconvenience by interfering with the expression of some conception that may hereafter be introduced into philosophy" (Peirce quoted in Deely 2001: 666–677).

While we may consider the warning unrealistic, given the nature of language (whatever the term might mean). We should note at this juncture that precision of terminological usage is itself a difficult demand in any event, as Vincent Colapietro pointed out in his review discussion of Deely's *Four ages* at the 2006 meeting of the Semiotic Society of America (Colapietro 2006). We certainly agree that efforts to arrive at precision of terminology often confound discourse, preventing meaningful sharing of ideas when the action of signs otherwise has the capacity to work through subtleties and traces of insight. In the present discussion, we would join Colapietro in suggesting that at many points in Deely's history of philosophy he has stopped short of realizing the depth of insights inherent in his work. But at least a part of the problem is one of "consistency" in usage.

1.   The conceptual field

The confusion created by casual reference to "language" in Deely's argument, then, could be mitigated by strict adherence to terminologies already in existence, some substantially enhanced by Deely's own work. For example, in the leading discussion on sense and perception in *Four ages*, Deely carefully differentiates the *Innenwelt* and *Umwelt* as areas of species-specific cognitive activity manifest among the *anamalia*, and even more carefully derives the *Lebenswelt* as the human *Umwelt*, a world experienced as *Umwelt* "linguistically modified" (Deely 2001: 9–12). The discussion is complicated by the fact that Deely opens his idea of *Lebenswelt* as "*Umwelt* modified by understanding", though he notes that "language is of a piece with understanding" (Deely 2001: 9). The sense of "language" clearly intended in this equation is a human capacity for cognitive modeling of the surrounding world, and this is constantly reinforced throughout the work. Indeed, later in the *Four Ages*, Deely not only equates understanding and language, but also annotates the equation of "language" to the formal philosophical construct of "intellect", citing refinements from Aquinas that undergird and solidify that association, and additionally suggest a parallel realization of the significance of "being-as-first-known" as a construct like *Lebenswelt* (Deely 2001: 347–348). It is very clear in these passages that Deely excludes "language" as a "signal" or "communication" system in the definitions of understanding and intellect. One should also see Deely's early discussions of *Umwelt* and *Lebenswelt* in *Introducing semiotic: Its history and doctrine*, where he cites the *Umwelt* construct originally suggested by von Uexküll (1926), but states further:

I would suggest that the human *Umwelt* — the intellectualized perceptual environment — should rather be called *Lebenswelt*, the lifeworld of common human concerns within which all specialized pursuits arise. On this usage, just as intellection presupposes perception and rests on sensation as on a "reality core," so the *Lebenswelt* contains virtually within itself the *Umwelt* of animal life and rests ultimately on the incorporation of the immediately surrounding physical environment into an objective network of cognition-dependent (socio-cultural) relations. It is the *Umwelt* which is the adequate object of zoosemiotic study, while the expansion into a *Lebenswelt* is the concern of anthroposemiotics. (Deely 1982: 105–106)

Deely's notion of *Lebenswelt* might seem inconsistent with Husserl's (1970 [1936]) original usage and derivatives that emphasize the "prereflective" nature of the "lifeworld." However, Deely's broader point here is that intellect exists as an essentially reflective tendency different from the total sense-perception capacity of the human species. We understand Deely's intention as seeing the *Lebenswelt* as a construct essentially redundant with "language" understood as a modeling system, what we will tag "language-M" within our discussion.

This makes language taken as a communication system (or "language-C") an ambiguous interference throughout the arguments of Deely's book. The imprecision created by the generic term "language", sometimes employed as Deely's highly personalized reference to a technical and deeply philosophically embedded concept and sometimes not, compels him to constantly restate his point of "language as a modeling system", much as Eco (2002), no doubt with different intent, constantly and repetitively refers to one character in his recent novel *Baudolino* as "*Aleramo Scaccabarozzi* known as Bonehead."

In fact, Deely's comprehensive annotated index helps elucidate some of the issues raised by our complaint. A thorough review of the 137 most relevant references to "language" in the index reveals some 56 language-M references. The remaining 81 references, some possibly intentional, but most unintentional, we believe, present language-C usages that potentially muddy the argument being offered. Classifying the cases can be difficult, since at some points the common usage is employed in characterizing the technical sense of the term:

[concluding an argument about Fonseca's treatment of Augustine] When we speak of formal and instrumental signs, therefore, we are not speaking of two species under a common genus, for there is no genus common to the two. The word "sign" in the two expressions is an inexact way of speaking, a misleading use of language [sic], a *flatus vocis*. Exactly speaking, there are mental representations and verbal significations, and only the vehicles of the latter can properly and exactly be called *signs*. (Deely 2001: 417)

We have selected this example also for its metalogical significance, since not only are we uncertain which sense of "language" Deely intends (and for us, at least, the Latin is no aid), but Deely's argument about the "sign" offers the very same order of problem. We note, of course, that in the larger context of the arguments such difficulties may be a minor perturbation — that is to say, one can and will "work out" the potentials of Deely's larger program regarding the history of philosophy.

One source of confusion in all of this is the role of *semiology*, the linguistically derived approach to the sign initiated by Ferdinand de Saussure (1976 [1906–1911]), but much developed in the structuralist and post-structuralist movements of twentieth century Continental philosophy (see Deely 2001: 57, 620, 682–684). *Semiology*, though influential, remains quite focused on language-C in its discourses, methods, and results, so much so that a major part of the intellectual sense of "language" in the contemporary academy is dominated by semiological notions. Alongside this bias is the sense in which much of *semiology* either disregards or intentionally excludes the interpretation of meaning except as a ground for understanding "how" semantic differences are created. From our point of view, *semiology* is a theory of language ill-equipped to tackle semantic issues because it is not designed to model semantic aspects of language-M (in this regard, see also Culler 1986: 18–23).

On the other hand, Deely, following his teasings from the Latin philosophers, his gleanings from early modern thinkers like John Locke and Jean Poinsot, and the powerful foundations established by Charles S. Peirce, and later Thomas Sebeok as the "catalyst" of postmodern *semiotic*, has at his disposal a precise terminology for language-M, *anthroposemiosis*, which has its foundation in much of his own work. Now, anthroposemiosis may be an ugly word, and one not in common parlance outside of the Peircean tradition of semiotics, but that is a quality, as Peirce might have said, which provides for it a clear and exact utility. Would it not be easier to refer to language-M strictly as *anthroposemiosis*, the processual aspect of the *Lebenswelt* (or human *Umwelt*). We might, then, get on with the work of detailing exactly which elements of the "human *Umwelt*" retain much of their animal foundations in sense and perception (or zoosemiosis), and what aspects derive from a reshaping of the world by what Peirce called "the argument". For it is "the argument" that is also at the foundation of language-M, inasmuch as the Peircean argument is unique to our species (at least in human experience) and central to "semiotic" as a cognitive capacity (see Peirce's "On the natural classification of arguments" *W* 2: 23–48; "On a new list of categories" *W* 2: 49–59; and "Some consequences of four incapacities" *W* 2: 211–242).

To underscore these points, consider Deely in *Introducing semiotic*:

... we may expect the notion of ''natural language,'' as something yet to be adequately explored within semiotic (or any other) perspectives, to become increasingly a focus of research and analysis in coming decades as we seek to understand the mysterious communion and compenetration of nature and culture that transpires in anthroposemiosis. For language in this basic manifestation (Wilden 1981: 10) ''is neither a copy of reality, nor a misrepresentation of reality; it is part of human reality.'' What has up to now merely been labeled in order to contrast it with supposedly more interesting and important but in fact impoverished and strictly derivative phenomena of cognitive concern will assume its rightful place as the center and focus of the richest, most heterogeneous form of semiosis on our planet, namely, anthroposemiosis. (Deely 1982: 92)

And again in *Four ages of understanding*:

... contemporary philosophers at work on the development of the doctrine of signs according to the fullness of its possibilities have begun to speak, after Peirce, of the actions of signs as *semiosis*, and of the action of signs at each of the cosmological levels. At the broadest physical level of atoms, molecules, interstellar gases, galaxies, stars, planets, and geological development, the action of signs is called *physiosemiosis*. In the living world of plants, the action of signs is called *phytosemiosis*. Among animals generally, the action of signs has come to be called *zoösemiosis*. And the species-specifically human use of signs, rooted in language, as we have many times mentioned in crossing the centuries to this point, is an action of signs called *anthroposemiosis*. (Deely 2001: 629)

2.   What zoösemiotics is not[2]

Let us at once recognize that all animals negotiate the world through ''signs'' which link sensed experience to memory and intention. This is what we mean by ''semiosis'', and we employ the term to indicate *any* form of ''action of signs.'' From a Peircean perspective, the nervous system's processes of sense and perception are all aspects of sign process, and the total experience of these species-specific cognitive processes constitutes semiosis. Hence, we can speak of ''anthroposemiosis'' as human experience through signs. We may also speak of something like ''gorilla-semiosis'' or ''pongosemiosis'' to distinguish the processes defining experience in the gorilla and orangutan, respectively. Our work has even led us to suggest that there exist in biological structure something like ''cognitive platforms'' that differentiate species to create these independent semiosic effects in the world. This is all consistent with recent usage of

the term *zoösemiosis*, though we stress that there is a strong distinction between Deely's and Sebeok's usage of the term zoosemiotics.

In relatively plain terms, what zoosemiotics was originally proposed to entail was "... the discipline, within which the science of signs intersects with ethology, devoted to the scientific study of *signalling behavior* in and across animal species" (Sebeok 1986: 74, emphasis added). This original definition seems somewhat narrower in scope than Deely's *action of signs among animals generally*. By reason of Sebeok's original definition, taken in conjunction with Deely's arguments about language as a communication system, we have come to think of the "signalling behaviors" of any species as an "exapted system" derived (in the biological genetic sense) from the limitations of species-specific semiosis. This makes zoosemiotics in Sebeok's sense the study of animal *analogs* of language-C that, though different in function and structure, stand in the same relation to the overall semiosis of the species as language-C does to language-M in the human species. One premise of such a view is that human physiology and functioning, *no more or less than other species in our biological system*, presents a unique psychological and behavioral manifestation built from necessarily common elements of our "animal" nature:

The task for the immediate future will be to treat, comprehensively and exhaustively the achievements of zoosemiotics from Darwin through J. von Uexküll to the present day; to arrange and display the data in a format relevant to the study of language, that is, by matching logical concepts derived from sociobiology with those developed in linguistics; and, using each species, so to say, as a miniature paradigm which throws light upon language observed as a peculiar combination of distinctive features of which all or most all components, considered alone, have their separate evolutionary roots (Koehler 1956), to consolidate and build upon what has been established about the proto-cultural foundations of human adaptation. (Sebeok 1986: 74)

We understand that an outgrowth of zoosemiotics has sometimes been to feed popular notions that anthropomorphize animal behavior, whether in the "believed" but inaccurate interpretation of the performance behaviors of circus animals (see Bouissac 1981), or the supposed "human language use" evinced in some Hominoid sign-language projects.[3] Peircean semiotics, we have found, resolves many of the issues raised by facile but inappropriate comparisons of symbol use in different species, and *zoösemiotics* holds promise of sorting out in exact terms the many unexpected and extraordinary things other species are doing. But it should be clear by this point in our discussion that there is a great potential for confusions and misinterpretations across disciplinary lines.

From a point of view focused on the evolutionary origins and development of human language, a less-anthropocentric accounting of inter-species and intra-species differences in signalling systems should extend to fossil species. Such a view, which has been long insisted upon by Sebeok and others in the field of zoösemiotics, offers the profound and critical recognition of the potential for distinctively-structured but homologous parallels in the areas of signalling behaviors, working in the service of very different overall cognitive systems. In short, we should not expect a simple and progressive emergence of evolutionary grades within the Primates leading to *Lebenswelt* and its derived human signalling system, any more than we now expect a simple and progressive emergence of different species within any biological genus.

We should expect in the fossil record of the hominidae parallels that involve relatively simple cladistic relationships of individual traits, with the later appearance of richer trait complexes and phenotypic expressions, selected under similar environmental pressures, in phylogenetically related populations that do not have direct connection through gene flow. But we should expect the functioning of such independently derived systems to be potentially quite distinct. Thus the "parallel" development of derived trait complexes, though temptingly similar to human functional systems, may in fact present only superficial similarities. This is very likely the case in later hominid evolution, so much so that a clear approach to *zoösemiotics* is exceedingly important to the interpretation of both the fossil record and ethological studies of signalling behaviors among the *Hominoidea* generally. We are certainly interested in shared, derived trait complexes, of course, but if complex physiological similarities do not necessarily imply that systems are functionally comparable, our discussion of *zoösemiotics* on the level of intra-specific comparisons is greatly complicated.

3.   Zoosemiosis and anthroposemiosis

As an opening of this section of our essay, since we have explored the notion of *zoösemiotics*, let us take a moment to take stock of our three general terms: semiosis, semiotic, and language. "Semiosis" we can define simply as "experience through signs" or, as semioticians have come to commonly express it, following Peirce, "the action of signs." "Semiotic" is the ability to reflect upon "the role of signs in structuring experience and revealing nature and culture to our understanding" (see Deely 1982: 65). Peirce constantly employed "the sign" as the foundation of experience and logic (for a key text, see Peirce "Some consequences of four

incapacities'', *W* 2: 211–242), and we note that in terms of the Peircean sign classification, "semiotic" relies upon what Peirce referred to as "the argument." *The argument* is a capacity to move beyond conventional references to "things" (symbolic rhemes) and basic propositions that link two or more "things" (dicent symbols) to more complex logical models,[4] constructed worlds, and all of the elements of the *Lebenswelt* that prompt Deely to make it a special form of *Umwelt* — species-specific and yet capable of diverse and distinct variations.

Thus, our preferred definition of *language* is as a communication system exapted — that is based upon some existing system — from the particular semiosic capabilities of our species (again, see Deely 2001: 301). That is, we want to reserve the word "language" for what we have tagged language-C. And so we have created the following equations among our terms and the terms defined by others in this area of inquiry:

Table 1.   *Comparison of derived and exapted elements of anthroposemiosis and zoösemiosis*

	Derived, primary system (Innenwelt)	Exapted, secondary system of signalling behaviors
Anthroposemiosis:	The capacity for the "Argument" language-M	The symbolic system used in human signalling language-C = "language"
after Peirce	The capacity for the "Argument" (argument-symbolic-legisign)	Dominance of symbolic rhemes and dicent symbols in signalling behaviors.
after Deely	"Language" = "Understanding" = "Intellect" → Umwelt as Lebenswelt	"Language" as "Communication"
Zoösemiosis:	Qualisigns, Sinsigns, Legisigns, mostly of the Iconic and Indexical types, serving mainly Rhematic and Dicent functions.	Iconic and indexical calls, and in some species "natural" symbolic rhemes and dicent symbols
after Sebeok		The subject matter of Zoosemiotics
after Deely	Umwelt — object of Zoösemiotic study	

Though we will continue to use our language-M and language-C tags in this essay, we see these as referring, respectively to (M) *the capacity for the argument* and (C) *the symbolic system used in human signalling.* Thus, in our view, by resolving Deely's inconsistencies with Sebeok on zoosemiotics, one might be inclined to speak of the "language" of birds or of gorillas, not suggesting that the communication system is exactly

like "human language" but that instead it is exapted from a form of semiosis other than anthroposemiosis. Thus, "language" is extended in such instances metaphorically, as Sebeok noted (1986: 77). But we, like Sebeok, stress that it is important not to confuse the metaphorical or "analogical" extension of the term with "phylogenetic" or "systemic" homology. This will be tremendously helpful in the zoosemiotic problem of understanding how, for example, Gorilla "language" derives from the semiosic capacities of the gorilla and — while it possesses hints of cladistic cognitive parallels — remains distinct from human language.

The communication capabilities of any species, human or otherwise, is only a small subset of the overall cognitive system in each case, and to use the term "language" to represent the highly complex process of human "thought" is to hugely over-simplify and bias our appreciation of human understanding, and to miss the significance of animal semiosis as foundational to our capacities. Deely's inconsistent use of the term language in many cases simply undermines the clear exposition of his argument.

Given Deely's long term involvement in the philosophy of science as it pertains to evolution, we find his overall arguments about *Lebenswelt* and general cognitive manifestations in our species to be compelling. On this ground, then, we want now to employ the term *Lebenswelt* he has helped develop and refine in our own representation of stages in the development of semiotic capacity in our species. Taking the idea of *Lebenswelt* as the human *Umwelt*, a biologically driven sensed and perceived world *modified* by the action of signs in anthroposemiosis, we may begin to distinguish between the capacity for such a modified world experience and the specific forms a world experience may take. The "lived world" of the human being reflects different communities of experience we call "cultures." Hence the capacity for creating a *Lebenswelt* is the "capacity for Culture." Within anthropology, specific patterns of *Lebenswelt* are seen as "particular cultures" (and this is roughly paralleled in the notions of "field" and "habitus" in the work of Pierre Bourdieu; for example see Bourdieu 1977). This would suggest that "cultures" derive from the cognitive engagement of the surrounding world as a specific "adaptive" or "adjustive" process. A similar phenomenological point of view is reflected in the synthetic historical and comparative work by David Abram (1997), *The spell of the sensuous.* So the basic idea of the "lived world" of the human being constituting a parsed construction within a field of possibilities fits well within Deely's conception of *Lebenswelt*.

But within common academic usage, culture *also* refers to the products of such lived experience — to technology and identified patterns of behavior, and even to the significations that justify these impacts on the

world. As a product of *Lebenswelt*, material artifacts and technologies hold a status very similar to signals and the behavioral contexts within which they occur — they are signs in a non-random system.

The question is: What kinds of signs are they? When ''signs'' of the derived life system present consensus-driven patterns of behavior, we will usually comfortably identify the population as human. One critical point here is that the *material world*, including humanly produced artifacts, may actually constrain behavioral conventions — to create *Lebenswelt* — even in the absence of a signalling system built around calls or other vocalizations. Thus, in the chicken-and-egg approach to ''language and culture'' in anthropology, culture (or manifestations of language-M) does not require speech (or language-C) to exist. On the other hand, we recognize that technologies present very different clues about the behaviors that produced them — some show evidence of arbitrary, consensus-driven patterns of production, and some show only evidence of the direct practical concern, in the area of stone tool production for example, for obtaining an edge or a shape, here and now. The mere presence of stone tools, then, is not direct evidence of a reflective, logically-predictive modeling system. Tools may at times be nothing more engaging than the material impacts of any species — the nests of birds or apes, the warning chitters of squirrels, or the howling of wolves. Thus, stone tools may resolve the question of whether a prehistoric population shared our ''capacity to Culture'' *only* in the context of a refined pattern analysis. If tools become similar to speech from a semiotic perspective, even if the signaling, technological, and thought systems are coevolved, it is difficult to demonstrate the idea that ''intellect'' should form purely on the impetus of the ability to ''name'' or ''call'' or ''warn'' or ''fabricate.'' Following these arguments, and recognizing the general absence of ''signaling behaviors'' in archaeological evidence, we emphasize that the presence of a human *Lebenswelt* should be distinctively manifest in the organization of the material record, and especially in the complexity of processes of tool production and use.

For, at the beginning, when biological consequences following chance events of mutation or gene flow brought together in a population the combination of factors necessary for more efficient, survival-linked, behavioral interactions in the world, these changes *primarily* enabled ''semiotic'' reflections in the form of ''the argument'' and only secondarily enabled sharing through signaling systems or technological conformity. There must have been a time when ''semiotic reflection'' was possible, while still largely absent from the manifest hominid behavioral repertoire and secondary to pragmatically direct interactive behaviors. Such a time would be the period of the ''emergence'' of anthroposemiosis, the

capacity to *Lebenswelt*, the capacity to create cultural difference, and the imminent arrival of the capacity we call *semiotic*, as reflective upon "shared" experience. Tool making and indexical use of symbols (population-specific calls), as they appear in many contexts, are more comparable to the behaviors of other hominoid species from a *zoösemiotic* point of view.

What would follow this emergence would be an expansion of a new, highly adaptive, population and an almost immediate elaboration of the content of its behavioral productions into distinctive, recognizable patterns. We would expect to see a system evolved to allow greater adapted efficiency that would produce local variants, and to the extent it exapted the variants into signaled expressions, codify the newly-achieved patterns of *Lebenswelt*. We believe that the underlying cognitive element in this transformation involves the shift from a primarily "holistic" means of processing information to a more "analytical" mode of processing, a mode consistent with both the step-by-step production of tools and the sequential nature of vocal calls serving symbolic associations (Dunn et al. 1992; and for similar arguments identifying expanded analytical processing to *Pan troglodytes* see Fouts and Waters 2001; Fouts and Jenswold 2002). These are all capacities we see widely, if mainly incipiently, in the animal kingdom (including the use and juxtaposition of symbols), but they are brought to a new synthesis by physiological changes, as well as feedback from patterns and units of the signal system itself. In our view, this later evolution of capacities is tied to a foundation of much earlier adaptive processes, some of which are unique to the hominidae and others more widely shared among the hominoidea. Let us consider the most foundational of these changes with respect to the hominidae, bipedal locomotion and expansion of the hominid brain.

4. Bipedalism and the brain

Efficient bipedal locomotion goes back at least 2.5 million years — the Pliocene-Pleistocene boundary — and extends back in less efficient forms to at least 5 million years.[5] The early bipeds in Africa illustrate one of the general trends of higher Primate evolution. They became differentiated into small and large bodied variants. The large-bodied forms died out at the mid- to late-Pleistocene, while the small-bodied forms appeared to be in the group of lineages that gave rise to the genus Homo. While the cranial development of these Australopithecine hominids was not beyond that of the modern apes — about 500cc brains in adults — the post-cranial skeleton is comparable to humans in possessing a substantial

upright posture complex. This establishes that upright posture and pelvic modifications preceded enlargement of the hominid brain.

Upright posture in the Hominids restructured the pelvis into box-shaped form that has the effect of closing down the birth canal. Human osteology shows that one of the strong traits used in identifying sex among efficient bipeds is the greater sciatic notch of the Ilium, which keeps the birth canal somewhat more open in females, counteracting the much more prominent trend toward pelvic closure. This is a compromise with upright posture that enables a slightly more developed infant — that is, an infant with a slightly larger brain mass at birth than otherwise would be possible. Human and chimpanzee absolute fetal growth is roughly comparable at term, although the chimp already has erupting incisors and human cranial capacity already approaches small hominoid limits. The human, however, still has substantial brain growth and muscular development to achieve after birth, while the chimpanzee is born with much greater motor ability, reflecting major differences in the early timing of ontogeny. The slowed maturation process in the human accommodates later neural development (through the processes of synaptogenesis and myelination) that radically expands the brain after birth, but at a cost of early infant independence. This slowed ontogeny, a "tolerative adaptation" allowing greater neurological complexity, is often referred to as neoteny (Clark 1971 provides discussion of tolerative adaptations for several functional complexes in Primate evolution).

When we compare the famous "Taung child" (an A. africanus of perhaps three years of age) and a chimpanzee of presumed similar age, though we see in both a prognathic face and a less prominent cranial vault than in a human infant, there are some important differences. The proportions, general brain size, and several other features of the Taung specimen mark it clearly as a hominid — that is, as a member of a prominently bipedal species. We also know that the chimpanzee newborn will be much less comparable to a human infant within a few months, quickly attaining substantial motor skills. Though the brain of the human fetus is larger than either an australopithecine or a chimpanzee at birth, it still has yet to achieve a large part of its overall surface area growth and synaptic development. Some recent work in hominid genetics suggests that the actual difference in the human and chimpanzee genome is very small, and that the cognitive qualities in the two species emerge from vast differences in the quantity of neurons (see Sapolsky 2006). Such a generalization reinforces the idea that the differences among these related species involve timing of processes and genetic "switches" controlling an otherwise generalized neuronal growth process. Critically important, the trend to larger brains in the context of upright posture, from this point of view,

does not require the emergence of complex new kinds of neurons or specialized tissues. This certainly supports the "continuity arguments" for hominoid-hominid development of communication capacities, grounded additionally by behavioral evidence that is highly consistent with zoösemiotic approaches to animal capacities (see Fouts and Waters 2001; Fouts and Jenswald 2002).

Viewing the general size and size-range development of the Hominid brain, we see that there has been approximately 1000cc overall increase in adult brain volume since the time of the australopithecines. The first documented jump in size away from the Hominoid pattern came with *Homo habilis* some 1.8 million years ago, and it is appropriate for us to ask why this increase occurred. We suggest that the pelvic narrowing associated with upright posture had the effect of creating several simultaneous adjustments in the nervous systems of the populations leading to the genus Homo. First, there would have been at least moderate fetal-maternal incompatibility for all of the early bipeds, resulting in more premature births. Premature infants would have had less-developed motor abilities, and thus would have presented a major problem for the adults in the population. We know that modern gorillas and chimps remain dependent upon the mother for at least two years, but these young have well-developed motor abilities. If premature infants were motor-deficient for a long period of time, they would require greater attention and care from the adults.

There are two solutions for this problem of premature birth. One is a general increase in body size, thus producing an absolutely larger birth canal that counteracts the problem — this was the adjustment of the populations that became *A. robustus*, as well as probably for the genus Homo shortly after its emergence.[6] The second solution is also a general primate trend — under stress all primates have tended toward more complex nervous systems. In this case, a larger mass of cerebral cortex in adults would accommodate the cooperation and learning processes supportive of caring for premature infants. This would be exceptionally important, since the large-bodied Hominoid forms already had the number of offspring reduced to single infant gestations of long duration. The requisite post-natal care also slowed population replacement, so survival of infants became a major element of the demographic system. Such a situation is suggested by the very slow population growth of the entire Paleolithic.

Of course, this adaptive response of acquiring a larger brain only exacerbates the problem of pelvic disproportion. The balance between optimal cranial size at birth and the architecture of the pelvis, we believe, pushed the lineage into a deviation-amplifying adjustment of the

maturation cycle. The "problem-solving" trend for greater cortical mass might mean using more of the incipient neurons of the general hominoid brain in a sculpting process wherein neuronal attrition proceeds rapidly in tissues lacking synaptic elaboration (see Nelson and Luciana 2001: 3–44). But the number of problems involved in linking capacities to tissues is much more complex, involving "multifocal" neuronal circuits more than "function-specific" neuronal populations (see Lieberman 2002: 38–40 and 46–47).[7] Relevant to this discussion it is apparent that the hominid brain creates more neurons than other higher Primates during early fetal development, within a generalized nervous-system ontogeny involving relatively unspecialized mass reproduction of neuronal tissues (see Sapolsky 2006). Also, as Roger Fouts has observed, tissue assymetries in chimpanzee brains (Pan troglodytes) suggest homologous structures to Broca's and Wernicke's areas, as well as for the angular gyrus, reinforcing the idea that such structures are at least as incipient in the hominoid evolutionary grade, and potentially supportive of different but related species-specific capacities of cognitive processing (Fouts and Waters 2001). While subcortical tissues may also be important to language functions in humans (see Lieberman 2002: 40), this does not belie the service Broca- and Wernicke-like cortical structures may serve to complex sign functions in higher Primates.

The general effect of these adjustments was a continuing neoteny reflecting several tolerative adaptations that expanded the lifespan, increased body size, slowed ontogeny, readjusted the points of birth and sexual maturity in the populations, and greatly expanded the period of post-natal neuronal development, and hence, the intensive care by adults during infant/child phases of development. Thus, rather than upright posture being a response to gradual increases in cognitive potential, we see the brain increases among early hominids as a response to the constraints of the irreversible upright posture commitment. This cycle of events, we believe, resulted in the enhanced "modeling" capacities of the later genus Homo, capacities that are foundational to anthroposemiosis and the abilities that would later refocus the human mind on its secondary linguistic medium, a reflexive evolutionary development in which the cognized reality of the animal (the *Umwelt*) is adjusted by the behavioral and signal system it enabled (language) into a shared variant of species-specific experience (*Lebenswelt*) whose material consequences in the world are repeated, reinforcing "signs" of that experience. In short, *we became "cultural" beings as a secondary consequence of our premature infants.*

Our broader zoösemiotic argument with respect to infant care and ontogeny, we believe, should also account for demonstrated semiosic capaci-

ties in the great apes, abilities that remain somewhat behaviorally incipient in the wild, but that appear to parallel human symbol manipulation (language-C) in captive populations, and that also suggest capacities paralleling our language (M) abilities. We suggest this based upon the extended infant care necessary for these species, as well as the wide range of ethological and captive population observations that support the natural abilities for imitative learning, problem solving, and direct symbolic communication (among the general works, especially see Goodall 1986; Fouts 1997; Savage-Rumbaugh 1986; Savage-Rumbaugh et al. 1998). The biological foundation of emergent human abilities must take into account the close species parallels, behavioral and genetic, between humans and the African apes, if not also to the wider grade of the hominoidea generally.

5. Stages of hominid cognitive evolution

It has always been clear from gross morphology that brain evolution in the hominidae was at least a two-stage physiological process from the emergence of Homo to *H. erectus*, and then from *H. erectus* to *H. sapiens*. What has been perhaps less clear for many years is that within *H. sapiens* there may have been two, or perhaps even three stages of cognitive or performative development leading to the "modal" human of today. The ambiguous and often reinterpreted status of European Neanderthals reflects inklings of this staged process in different interpretations of the fossil record (see Aiello and Dunbar 1993; Stringer and Gamble 1993; Cunliffe 1994; Johanson and Edgar 1996; Tattersall and Schwartz 2001).[8] Current paleontology is much more open to the idea that there may have been several competing species of the genus Homo, each with different capacities of semiosis and different levels of "cultural" engagement in the world. It is very likely that most of the early fossil forms, especially those outside Africa, are only tangential to the culmination of processes leading to our species. *Homo erectus*, *Homo ergaster*, *Homo heidelbergensis*, and *Homo neanderthalinsis* (or *H. sapiens neanderthalinsis*) are actually sufficiently different in technology to warrant cognitive differentiation from *Homo sapiens sapiens*. And yet some of these and other identified populations in Africa, Asia, and Europe remain part of what was probably a genetically connected population, through cladistic parallels of development at the least, if not through direct sharing of local and regional developments through gene flow.

   Viewing technology from a semiotic perspective, we are prepared to offer some direct parallels between developments in stone technology and

general sign capacities foundational to "language" in its communicative sense. Studies of technology suggest that in Europe and Africa the late "archaic" Homo sapiens and Neanderthal populations, possessing very late Achulean, Mousterian, and even Chatelperonean technology, used *technological equivalents* of symbolic rhemes (or "words") and dicent symbols, or the immediate juxtaposition of symbolic rhemes to form propositions (Prewitt and Haworth 2004). We base this in part upon the excellent work by Steven Kuhn (1995) on reduction processes in Mousterian lithic technology, and in part on a more general appreciation of the distinction between Achulean, Mousterian, and Aurignacian technologies. The idea behind this claim is that Mousterian tools, to focus on the most representative of the middle Paleolithic technologies, link visual/material forms to behavioral functions in at least partially "conventional" ways. That is, the user of the tool (like the later archaeologist) could look at the form and make the connection to a function, as opposed to seeking the "form" (or edge characteristic) on a multi-purpose tool. The association is also suggested in the production process that aligns certain edge and shape constellations to particular functional uses, beginning with a process selection of a flake blank conducive to the desired shape and edge. The overall process evinced by the artifacts is one involving multi-stage analytical cognitive processes similar to those at work in the unfolding of a simple sentence.

The remarkable changes in technology we see with Mousterian tools, dating from perhaps 120,000 to 40,000 years ago, are also notable in that they represent the transition between the Lower and Upper Paleolithic. The most interesting thing about these tools is the sense in which the reduction process is aimed at producing particular "shapes" and "kinds" of flakes that are then turned into functional tools of different types. This shape-to-function correlation is a major shift away from the "Achulean army-knife" approach of the Lower Paleolithic. First, it is more technically efficient because it produces more cutting edge from a piece of material, thus conserving resource. The tools also show an overall production process of much greater consistency and complexity. Most important from our point of view, is the evidence that a knapper could "read" the results in the knapping process and change strategy for achieving particular results. This staged production process, which we know characterizes stone technology from the Upper Paleolithic on in ways that precisely parallel language, calls for greater intentionality and "linear" cognitive focus of the knapping process while also taking advantage of accidental production of desired results (for a cognitively grounded exposition of this generalization, see especially Young and Bonnichsen 1984).

Of course, there are precursors for the Mousterian tool functions in the Achulean hand axe, but the Mousterian knapper did not have only one primary "form" upon which prepared edges and evidences of use would be associated as work progressed. Neanderthals made a "tool kit", meaning also that to accomplish a job they would seek or create a specific tool shape and edge. In effect, the implicit "propositions" entailed in the attributes of the Achulean axe were divested into separable units, and so the tool's "propositional" value in an instance of usage was specific, and apparently somewhat fixed. Mousterian tools are more explicitly like "words" than were their Lower Paleolithic counterparts. In context, such functional classes offer us very direct insights into how work was accomplished.

Thus, Mousterian tools show us two things we have not encountered in earlier technologies: (1) hierarchic linear processes, and (2) logical types (forms, symbolic rhemes) elevated to an association of functions to create incipient propositions (dicent symbols). A "user" of a particular "tool" (as we say, the "right" tool) is acting out the proposition created by the tool's attributes in relation to what it can accomplish. Production of a differentiated tool kit has strong implications for the analytical cognitive processing abilities of the animal.

But technology also suggests, and we have argued elsewhere (Prewitt and Haworth 2004; Haworth 2006; Haworth and Prewitt 2006), that the elaborations of technology, art, and other material patterns of *Homo sapiens* during the Upper Paleolithic, sometimes living essentially alongside Neanderthal populations, shows a very different quality of mind from both earlier species and from the populations who followed in the later stages of the Upper Paleolithic (after about 20,000 BC), Mesolithic, and Neolithic. Working with the earlier populations, Mithen (2006: 233) has come to very similar conclusions as ours based upon cultural and neurophysiological evidence.

When we graph elements of technology directly onto the system of Peircean categories, we discover in the process elements of the sign system we are studying and the ways we study it. From individual attributes, incidental or selected, we encounter logical "types" defined by constellations of features, differential signs of use and production that themselves fall into patterns or classes, and finally signs of use or function. A tool is not a "proposition" until it is picked up with intention, in the same sense that a word does not "mean" any particular thing until it is placed in a context, but in archaeological or living contexts, tools may be read as propositions about action sequences or intention in patterned motor behavior (Young and Bonnichsen 1984: 21–87). Moreover, to understand the "took kit" as a system of differentiated functions and processes is to

enter into the propositional nature of the technology. As the complexity of tools increases, including manufacture of compound tools from diverse materials, so also the elaborations suggest more than simple imitative modes in the learning of craft (see Mithen 1996: 208–216). What happens very soon after the inception of the Mousterian tradition, is that stone tools become "styled" within families of styles, offering signs of "convention" and the opening to all the symbolic complexity of our world. There is also evidence that the Neanderthals do not participate in this further technological elaboration, or even in the full genetic development leading to *Homo sapiens* (see Tattersall and Schwartz 2001: 207–209, 219; also see Mithen 2006). The stylistic explosion of the Upper Paleolithic, beginning with the Aurignacian and Magdalenian developments, is a speciation or replacement event with major cognitive implications. Specifically, arbitrary elaborations in stone tools beyond functionality indicate another important cognitive transition which, though it is undoubtedly of at least cladistic association with the physiology that produced the Mousterian, presents an even more richly complex behavior accompanied by clear physiological differences.

A key question about all of this technological transformation remains. At what point, and under what biological influences, does "semiotic capacity" emerge? Is there anything in the archaeological record that suggests more precise relationships of timing and capabilities for the genus Homo on the eve of physiological modernity. "Semiotic" consciousness, among other marvels, offers the ability to take experience through signs, reorganize it through signs into make-believe alternatives or potentials, and knowing that they are make-believe, act on those understandings as though they were real. It is the basis of myth, theory, and tradition. At what point do we step away from our Hominoid cousins and begin to negotiate life habitually through symbolic arguments, models, stories, myths, and empirical processes, all of which have become what anthropologists have called our "exosomatic" means of adaptation? At what point does the *Lebenswelt* emerge as the distinctive quality of our species?

6.   Semiotic unfolding

We have discussed elsewhere the extraordinary similarity of Upper Paleolithic cave art and the artistic productions of autistic savants, and the cognitive implications of this similarity for the evolution of language (see Haworth 2006, 2007; Haworth and Prewitt 2006). Out of this work, we contend, regardless of the specific variations in the connections that may genetically occur in the human brain, that one aspect of autism is a more

holistic mode of brain functioning, and that this mode of functioning has something in common not only with other Primate species, but with our immediate ancestors. We are certainly not suggesting that Paleolithic people were autistic — instead, we are arguing that there are signs of holistic brain function that suggest an absence at least of habitual or dedicated verbal language in the experience of these people. But a brain allowing, or perhaps allowing emphasis of analytical functions over holistic processing is precisely the kind of organ that could ultimately give rise to the human *Lebenswelt* as Deely defines it, in the context of a communication system derived from the modeling capacity. Indeed, given the other indications of complex structure in technology and motor behavior, as well as physiological changes in the *Homo sapiens* brain supporting Aurignacian and Magdalenian cultures, we believe the authors of the cave art were cognitively capable of verbal language, and even used it to a limited extent. Very plainly, we think there was a stage where the human mind, though capable of constructing logical arguments in thought, did not extend this rational behavior to *habitual* use of speech.

In linguistic terms, we call this emergent level of capacities Language I (or human *Umwelt* without *Lebenswelt*).[9] This resulted in a brain still free to emphasize other important environmental interests. This is why, we argue, we encounter the extraordinary visual and technological manifestations of the Upper Paleolithic archaeological record — both the early stages of specialized stone technology and cave art. The Aurignacian is, for us, the ''dawn'' of semiotic consciousness, without those special abilities being exapted into a full-blown verbal expression of symbolic modeling. However, just as the Neanderthals and Mousterian culture represent a short phase of physiological transition — a step in a biological punctuated equilibrium process — the Cro-Magnon emergence and Aurignacian culture evidently represent an even shorter adjustment of cognitive style to the new brain physiology. From the Magdalenian period (18,000– 10,000 BC) on through the Mesolithic to the beginnings of the Neolithic, we see progressive elaboration of technology moving toward plant cultivation, and simultaneously the establishment of narrative art executed in the form of abstracted, almost stick-figure representations (cf. Haworth 2006, figures 1–5 and 14–16; also see Rudgley 1999). In the later art, which may be easily represented by works from the early Neolithic period in the Spanish Levant (see Beltrán 1982), we encounter human figures hunting, dancing, and engaged in other activities. We see animals being hunted and killed. We encounter representations that depict ''what is known'' rather than what is a direct visual experience. There can be little doubt from these evidences that what we are viewing is ''human'' in the sense we experience humanity, that spoken language (Language II) is

dominating the brain functions, and that "shared culture" is now structuring the lives of diverse communities. With the later Upper Paleolithic, the *Lebenswelt* has arrived, and the human animal is realizing its species-specific potential.

We arrive, then, at a proposed sequence for the evolution of "language" based in the Doctrine of Signs and empirical studies of cognition, brain physiology, the fossil record, and paleo-technology:

1. (5M–2M) Separation of a small-bodied upright biped whose pelvic size provided the "kick" for a major nervous system expansion for its descendants in the genus *Homo*.
2. (2M–1M) An accommodation of bipedal, large-brained adaptations through increased body size, supported by a combination of cooler Pleistocene weather, social organizational changes, and a protein-rich diet.
3. (1M–175,000) Dispersal of the successful and genetically variable lower Pleistocene hominid population accompanied by differentiations of many small populations, with gene flow supporting some locally unique nervous-system adaptations enhancing natural Hominoid tendencies to symbol use, but producing highly variable sign capacities from population to population.
4. (175,000–35,000) A transformation in some populations, originally in Africa but ultimately expanding into Europe and Asia, to more linear and hierarchic technological processes reliant upon the use of tools, and likely manual symbols plus some conventional vocal symbols, deployed in limited combinations as "propositional" behavior. This stage involved brain expansion supporting various symbolic modeling functions in the emerging cognitive system. Neanderthals represent only a part of this general "Archaic *H. sapiens*" development, but are a population that clearly displays through technology some of the foundational cognitive developments necessary to, but not sufficient for "language" as the term applies to *H. sapiens*.
5. (40,000–20,000) Emergence of a restructured brain capable of verbal exaptation of propositional behavior into a signal system and reflecting shared "semiotic consciousness". The population may have relied upon basic speech forms (Language I), but still appears to not be specialized for habitual language use.
6. (20,000–present) The gradual habituation and elaboration of the brain to accommodate verbal expression of semiotic consciousness, involving the full-blown emergence of spoken language, language diversification, development of elaborate traditions, aesthetic abstraction and elaboration, and other cultural elements consistent with

ourselves (Language II). With this stage we see the beginnings of cultural differentiation we have identified with the *Lebenswelt*.

7. We offer yet a final stage, which may go back as far as Language II itself (and according to Marija Gimbutas certainly does), wherein the coevolution of physical symbols, sometimes derived from icons, are a major manifestation of cultural developments. We tend to think of "writing" as coming much later in time, but there is growing evidence that writing in various forms goes back to perhaps 10,000 BC, and that the symbols associated with writing are likely much older (see Rudgley 1999: 72–85). We offer this last note because it is consistent, we believe, with the general premise that there is a coevolution of verbal signals, other behavioral signals, and technologically produced patterns that take on symbolic significance for groups.

7. Conclusions regarding Deely's ambiguity, zoösemiotic, and language

Recognizing that our argument is a rather conservative one within the general field of Hominoid communication studies (after all, we are not giving "human language" in any sense to Neanderthals, much less to *Pan*, *Gorilla*, or *Pongo*), we should note that it has become a somewhat radical one within semiotic circles. The tendency of semiotic scholars to reserve "language" for *Homo sapiens*, and perhaps a few of our immediately antecedent species is very strong. What we have attempted, drawing substantially from Deely's ambiguity in dealing with language and his innovation with respect to *zoösemiotic*, is to tease out a middle ground that posits a close semiosic relationship between the cognitive underpinnings of all of the Hominoidea, and a precise notion of "language" within that group as the name for a family of species-specific exapted signal systems, all richly symbolic, accommodating the intra-specific (and sometimes inter-specific) sharing of experiences through whatever sign capacities each species possesses. It goes without saying that we will not be discussing Peirce, Poinsot or Deely with a chimpanzee any time soon (that is difficult enough to do among humans). Yet the full richness of our understanding of the communication behaviors of other species, especially within the mammalian orders, should not be delimited by a Cartesian prohibition against the idea of shared capacities among closely related species. What is clearest, when we view the physiology of the brain, is that there is no particular reason to posit some extraordinary or miraculous difference that accounts for anthroposemiosis, and on that basis there is no reason to exclude something close to anthroposemiosis as the cognitive ground for Hominoid behavior generally.

Notes

* A preliminary version of this paper was presented by Karen Haworth at the annual meeting of the Semiotic Society of America, Purdue University, October 2006. This much-expanded version also includes material developed for the SOAN Lecture, College of St. Mary's, Maryland, in March of 2006.

1. Deely (2001: 115, 134, 155, 182, 203) discusses influences of pagan Neo-Platonism and Latin language on Greek perspective, and ties this to the whole notion that the "language in which philosophy is conducted" may have influenced the definitions and expressions of the ideas. He also discusses impacts of modern language philosophies (2001: 491–492), and mathematical approaches to the language problem (2001: 523).

2. Throughout this discussion, we shall consistently distinguish between the two senses of "zoosemiotics" — first, the original sense of the term, characterized in the work of Thomas Sebeok (1986), referring to the study of animal signal systems and represented by the unmarked word; and second the sense provided in the elaborations by John Deely's more recent work and relating to animal sign capacities (especially 2001), represented by the gloss *zoösemiotics*.

3. For the early semiotic critique of ape-language experiments see Sebeok and Rosenthal (1981); for counter arguments that are most consistent with our own approach (and Deely's *zoösemiotics*), relating to natural-acquisition sign projects with *Pan troglodytes*, see Fouts (1997); Fouts and Waters (2001); Fouts and Jensvold (2002). Other projects and critiques, of variable intention and success, related to experimentally trained and home-trained Hominoids are generally recounted in numerous works, including Terrace (1979); Patterson and Lindon (1981); Savage-Rumbaugh (1986); Parker, Mitchell, and Miles (1999); Terrace and Metcalfe (2005).

4. For a succinct abstract of Peirce's sign classification, see "Logic as semiotic: The theory of signs" in Danesi and Santeramo (1992: 11–28), extracted from primary sources in the large corpus of Peirce papers.

5. Myriad classifications and discussions of hominid development are available. For this treatment we have used as general background, because of their accessibility to non-specialists, the recent work by Ian Tattersall and Jeffrey Schwartz, *Extinct humans* (2001), and the excellent synthesis of some key fossils by Donald Johanson and Blake Edgar, *From Lucy to language* (1996). We also provide occasional more specific technical citations relating to particular points made along the way.

6. One of the type specimens of Homo ergaster, dated at 1.6 million years ago, suggests an adult height well over five feet. Beyond Homo habilis, most of the fossil hominids are comparatively larger, an adaptation that may have occurred also to accommodate climatic changes (see Johanson and Edgar 1996), especially global cooling of the Pleistocene.

7. Philip Lieberman's synthesis of issues involved with neurophysiology and function relative to human language is a necessary ground for any zoosemiotic discussion of potentials for various kinds of sign use among the Hominoids.

8. We also encourage our colleagues and students to read, or re-read William Golding's provocative novella, *The inheritors* (1955) an early literary reflection upon the relationship between Neanderthals and Homo sapiens that, in spite of some of its dated descriptors, nicely explores the notion of a species on the brink of "language."

9. Let us note that Marcel Danesi's view of the evolution of language, based upon Giambattista Vico, offers a similar staged representation of the formation of semiosis, involving two cognitive levels and four chronological stages (see Danesi 1992: 106). While the particulars of Vico's theory of semiosis are different in purpose, they functionally relate well to the general process of language evolution we are suggesting here.

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Relations: The true substrate for evolution

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Abstract

The strange "forgetfulness of the notion of the sign" that John Deely puts as an emblem for the third of the Four ages of understanding *(2001: xxx) may also be seen as an emblem for the so-called modern science that grew to unprecedented victories in that same historical period. This was the period where the Newtonian idealization of nature was, somewhat paradoxically, taken as a prime model for good materialistic science. One important consequence of this idealization was that the spectrum of acceptable causalities operative in nature was reduced to just one, the efficient causality of Aristotle. As a consequence the concept of relation disappeared from nature as autonomously existent. Departing from the bioanthropological critique of modern biology launched by Gregory Bateson, the paper reinstates "relative being" — and thus the notion of the sign — as a "unique, suprasubjective mode of being" (Deely 2001: xxxi). The scientific vision of a nature governed by natural laws is thus replaced by a vision of nature as an incessant semiotic emergence brought out by the ever increasing capacity of life for inventing new and more efficient kinds of "interpretance" or, in Peircean terms, a tendency to take habits.*

Keywords: relative being; Gregory Bateson; evolution; semiotic emergence; bioanthropology; natural law.

1. Newtonian idealism

Scientists that innocently take the Newtonian revolution to be a fundamental building block for modern rational science may not be aware of the strange metaphysical claim at its base. Thomas Hobbes' bold conjecture, that the social atoms, human individuals, posses *essential properties* from which the appearance of social order among human beings can be

explained, was transferred by Newton to the natural world which he saw as constituted, at the micro level, of particles with *essential properties*: hardness, impenetrability, indivisibility and inertia. But Newton also claimed that these essential properties could not by themselves explain natural phenomena in the absence of a causative agent, or force, the force of gravity. Gravity differs from the essential properties of particles in that gravity is not a property of any single particle but an enigmatic *universal property*, unlike anything else known to human experience. Thus, according to Newton's postulate, right now every atom in your little finger is pulling in every atom on Venus and *vice versa* (although, unknown to Newton, gravity cannot exert its distant effects faster than the speed of light). Simply by postulating the existence of this one force Newton was able to bring the movements of celestial bodies into harmony with movement of bodies at the Earth, both kinds of movements being calculable by the same set of simple equations. While Newton himself did not think he had explained the phenomena, that he so accurately had described, and spent the last thirty years of his life searching in vain for a true explanation of gravity, most scientist since Newton have conceived of the Newtonian laws as the ideal way to scientifically model nature. The invisible hand of Adam Smith and the Darwinists conception of natural selection as a source of otherwise mysterious purposeful activity in animate nature are both deeply indebted to the Newtonian idea of gravity as an unexplained (divine?) yet — as the proponents believe — trustworthy force of lawful universal intervention in the senseless machinery of economy or evolution respectively.

The huge explanatory potential of the Newtonian achievement combined with the immateriality of gravitation itself served to strengthen the Platonic intuitions of scientists that came to see mathematical formalizations as expressing the deepest reality of our world.

The belief that mathematically formalized nature may in principle explain the unruly material processes and entities of natural systems, as we humans experience them, has been one of the major tenets of modern science. Only recently has this metaphysical supposition started to crack due to a growing understanding of the role of emergent processes in evolutionary systems. Findings in the study of complex systems have shown that the formation of ordered structures in our universe may be a more promising area of research than the much-heeded attempts to formalize natural systems into predictable patterns. Maybe complex natural systems simply are not predictable after all? Maybe, in other words, the seeming order of this world is not preordained by natural law but is, instead, simply the result of communicative interaction inside, or between, complex systems, semiosis.

A century has now nearly passed since Einstein's relativity theory undermined the belief in Newtonian conceptions such as absolute space and time. But neither relativity theory nor quantum mechanics abolished the fundamental belief in mathematical formalizations as *real* reality. Quantum mechanics may be interpreted to preclude ultimate predictions, but the implied indeterminacy is normally understood as an epistemological indeterminacy, i.e., the problem that observed entities are unavoidably influenced by the observation, whereas the quantum mechanical equations themselves describe a perfectly deterministic world. The Platonic-idealistic aspect of Newtonianism thus remained untouched for nearly another century.

Only in the final decade of the twentieth century did new approaches to the analysis of dynamical systems gradually permit a retreat from the Newtonian ideal. The capacity of computers to simulate the dynamics of complex systems has produced what might be called a "reality-influx" into the theoretical worlds of science. Most interesting systems in this world, living systems in particular, find themselves in a kind of state that thermodynamicists call *far-from-equilibrium* states and systems belonging to this class cannot be described by the classical equations. Thanks to developments in a range of advanced fields inside physics, biology, cognition science, and others a relative consensus have been reached in viewing such complex systems as having dynamic properties that opens for self-organization to occur (Haken 1984; Yates 1987; Kauffman 1993, 2000; Kelso 1995; Port and Van Gelder 1995). Self-organization is seen here as a process by which energetically open systems of many components "tend to reach a particular state, a set of cycling states, or a small volume of their state space (attractor basins), with no external interference. This attractor behavior is often recognized at a different level of observation as the spontaneous formation of well organized structures, patterns, or behaviors, from random initial conditions (emergent behavior, order, etc)" (Rocha 2001: 96). In complex adaptive systems kinds of positive feedback occur where the products are themselves necessary for the process, producing a "circular cause" or a "self-cause" (Juarrero 1999: 5). Unknown to most scientists already, Kant, of course, dealt with the "self-organizing" properties of life forms that for him implied the impossibility of ever including biology among the (Newtonian) sciences. Self-organizing systems, as scientifically conceived today, form dynamic wholes that are not just, as science so often assume, epiphenomena, but are capable, as systems, to exert causal power over their own components and exhibiting formal and final kinds of causalities.

The breakdown of the Newtonian idealization of nature thus reinstates a more broad-minded conception of causality and potentially lifts the

taboo against final causations in science that have for centuries prevented a semiotic understanding of nature. Even the simplest life forms take cues from their environment and generate interpretants in the form of actions that are future-oriented, inasmuch as living beings always seek signs that may help them survive and reproduce. Semiosis, the action of signs, says Lucia Santaella, is a synonym of final or intelligent causation and also a synonym of life: "Peirce's definition of the sign as the ordered form of a logical process including the effective action of the existent and subjected to chance function is a subtle, logical, general, and abstract description of all transformational processes such as life, mind thought, intelligence, time and evolution" (Santaella-Braga 1999: 499).

This, then, clearly shows us Charles Peirce as the first explicitly post-modern philosopher in the sense John Deely gives to this somewhat over-used term, namely, the understanding that "the highest grade of reality is only reached by signs" (*CP* 2.327; Deely 2001: 211), or in Deely's own words: "If there is one notion that is central to the emergent postmodern consciousness, that notion is the notion of sign." (2001: xxx). The gradual overruling of Newtonian idealism in science lets us finally understand the full range of Peirce's semiotic realism, and we must be grateful to Deely for his visionary rewriting in this great volume of the history of philosophy in the light of a rarely enlightened postmodern understanding.

2.   A deep symmetry

The subordination of the scientific worldview under Newtonian idealism left us with an unsurpassable bridge between nature and mind. On the one hand we have a scientific approach to the study of life that takes for granted that natural laws exhaustively explain all of reality. On the other hand we have a humanistic approach to which human intentionality, conscience or "first person experiences" remain central and which maintains that the core of these phenomena evades description in terms of natural laws. Thinkers of the latter opinion often take the poverty of the scientific world view *vis a vis* these aspects of the world to imply that a religious or spiritual position is necessary. Conversely, and symmetrically, adherents of the scientific world view routinely suspects religious or spiritual motives behind any criticism of the scientific world view.

None of these mainstream views seems much inclined to consider that a third possibility exists, a position that sees human mind as a particular instantiation of a nature that is in a deep sense itself *minded*. A view, in other words, which holds that neither human mind nor nature at large is reducible to deterministic natural laws. This, as we saw, was the position

taken by Charles S. Peirce, and in more recent times by Gregory Bateson — let us in this context term it *the bioanthropological position* — nature is not the mindless kind of thing the natural sciences have stubbornly tried to reduce it to and there is therefore no reason why human mind should not be seen as a naturalistic phenomenon in no particular need of religious or spiritual explanation.

One of the most remarkable aspects of the scientific outlook is exactly that it considers itself to be *materialistic* in spite of its obvious debt to Newtonian idealism. As Bateson saw this so-called materialism is strangely symmetrical to so-called superstition: ''Miracles are dreams or imagenings whereby materialists hope to escape from their materialism. They are narratives that precisely — too precisely — confront the premise of lineal causality'' (Bateson and Bateson 1987: 51).

Materialism and supernaturalism are in Bateson's view logically opposite ways of responding to the same central misconceptions deeply buried in our Cartesian heritage. First and foremost is the idea that there are two distinct explanatory principles in our world, ''mind'' and ''matter,'' forcing us to chose beetween the causality of mind (supernaturalism) or the causality of matter (materialism) in our explanations:

[We can] think of the mind/matter dualism as a device for removing one half of the problem for explanation from that other half which could more easily be explained. Once separated, mental phenomena could be ignored. This act of subtraction, of course, left the half that could be explained as excessively materialistic, while the other half became totally supernatural. Raw edges have been left on both sides and materalistic science has concealed this wound by generating its own set of superstitions. The materialist superstition is the belief (not usually stated) that *quantity* (a purely material notion) *can determine pattern.* On the other side, the antimaterialist claims *the power of mind over matter.* That quantity can determine pattern is the precise complement for the power of mind over matter, and both are nonsense. (Bateson and Bateson 1987: 59)

To illustrate this claim Bateson asks the reader to consider the relation between classes and things. Take, for instance, chlorine, which is a name for a *class* of molecules but is not itself *a* molecule or a thing. Now, if you mix chlorine and sodium a chemical reaction will take place leading to the formation of common salt. Nobody denies the truthfulness of this statement. The problem is that the statement is not directly about the material world but only about *classes* of molecules. So, the question is: Are there such things as *classes* in the material world?

Bateson's answer to this question is surprising, and may not be understandable at all inside the Newtonian framework where causative agents are always positive events or conditions: impacts, forces, and so on. As

Bateson notes, this is not so in the creatural world (on the *pleroma-creatura* distinction, see next paragraph), where effects are caused by *differences* in some parameter sensed by the organism. A telling example is that of the frog, which will not see an insect sitting right in front of it as long as the bug does not move. The moment it moves, however, the frog immediately sees it and probably catches it too (Lettvin et al. 1959). ''Every effective difference'' says Bateson ''denotes a demarcation, a line of classification'' (Bateson 1972: 457). Classifications then are indeed natural phenomena, but only in *creatua* not in *pleroma*.[1] This answer does in a way lay out much of the epistemological fundament for what should later become biosemiotics (a term Bateson never used himself of course):

In the world of living things, the Creatura of Jung and the Gnostics, there are really classes. Insofar as living things contain communication, and insofar as they are, as we say, ''organized,'' they must contain something of the nature of *message*, events that travel within the living thing or between one living thing and others. And in the world of communication, there must necessarily be categories and classes and similar devices. But these devices do not correspond to the physical causes by which the materialist accounts for events. There are no messages or classes in the prebiological universe.

Materialism is a set of descriptive propositions referring to a universe in which there are no descriptive propositions. (Bateson and Bateson 1987: 61–62)

Thus the life sphere is characterized by proccesses of communication, or semiosis as we would say today, and this is where patterns belong. But the causative universe of materialistic science does not possess the apropriate tools for describing such processes.

The misunderstanding that quantity determines pattern owes much of its credibility to the apparent naturalism of the Cartesian coordinates, which tended to conceal the constructed nature of any graphic or functional representation of natural processes. The laws of gravity, for instance, do persuasively describe certain aspects of our world, but this does not mean that the laws are natural in the sense that they are part of nature. The laws are patterns made up by scientists, they are mental phenomena. Patterns don't exist unless *somebody* draws them.

And here is the core of Bateson's (and Peirce's) idea, a far-reaching idea indeed: Living systems are communicative systems by themselves, and they must therefore deal with classes of some sort, or, in other words, they draw patterns and — I would add — in this sense they essentially are *someones*. Consequently someones — ourselves included — are natural beings, not supernatural observers describing the world ''from nowhere'' (to use Thomas Nagel's [1986] incisive expression).

3.   Creatura and Pleroma

This brings us directly to what I think may be called the main focus of Bateson's whole work whether in biology or in anthropology, understanding the process of knowing, or epistemology: "the interaction of the capacity to respond to differences, on the one hand, with the material world in which those differences somehow originate, on the other" (Ruesch and Bateson 1987: 20). Or, expressed in the terminology Bateson chose for his discussion in *Angels fear*: the interfaces between *Pleroma* and *Creatura* (Bateson and Bateson 1987: 20).[2]

Pleroma is the world of nonliving matter. This is the world descibed by physics and chemistry in which there are no descriptions. A stone does not respond to information and makes no injunctions. The stone is affected by "forces" and "impacts," but not by difference:

I can describe the stone, but it can describe nothing. I can use the stone as a signal — perhaps a landmark. But *it* is not the landmark. I can give the stone a name; I can distinguish it from other stones. But it is not its name and it cannot distinguish. It uses and contains no information. "It" is not even an *it*, except insofar as I distinguish it from the reminder of inanimate matter. (Bateson and Bateson 1987: 17)

Creatura on the other hand is "the world of explanation in which the very phenomena to be described are among themselves governed and determined by difference, distinction, and information" (Bateson and Bateson 1987: 18). *Angels fear* was published in 1987, seven years after Gregory Bateson's death, and his daughter, Mary Catherine Bateson, who had worked closely together with him in writing the book before his fatal disease would bring his life to an end, took care to point out in brackets that Creatura and Pleroma are not, like Descartes' "mind" and "matter," separate substances:

On the one hand all of Creatura exists within and through Pleroma; The use of the term Creatura affirms the presence of certain organizational and communicational characteristics which are themselves not material. On the other hand knowledge of Pleroma exists only in Creatura. We can meet the two only in combination, never separately. The laws of physics and chemistry are by no means irrelevant to the Creatura — they continue to apply — but they are not sufficient for explanation. (Bateson and Bateson 1987: 18)

The Creatura-Pleroma distinction is indeed quite subtle, and from Bateson's unpublished manuscripts it appears that he had worked on it for quite some time (Harries-Jones 1995: 95–97). In *Angels fear*, Bateson

explicitly accepts the Kantian understanding of *Das Ding an Sich* as an inaccessible, and accordingly he also thought that we can only know the non-living material universe of *pleroma* through the communicative contexts we ourselves establish, the appearances of *pleroma* so to say, not *pleroma* itself. Harries-Jones explains: "As *creatura*, we may assume that *pleroma* has its own regularities — inertia and change, cause and effect, connection and disconnection — but the regularities of *pleroma* remain, in the last resort, inaccessible directly" (Harries-Jones 1995: 97).

The creatural theory is probably the nearest thing Bateson ever came to formulating the ontological assumptions underlying his scientific work. Reading it again so many years later, and this time with an eye to the Peircean perspectives of his thinking I found it hard not to equate *creatura* more or less directly with Peircean *thirdness*. *Creatura*, like *thirdness*, is an anlytical tool for ordering the world's phenomena into categories, and more concretely *creatura* and *thirdness* both encompasses the mediating, lawful, and evolutionary aspects of our world. To place *pleroma* in the Peircean categorial system is less obvious. Taken in its Jungian sense from *Septem Sermones ad Mortuos* as the totally unstructured realm, the "nothingness" or the "fullness" of the eternal or infinite, *pleroma* might perhaps be equalled to Peircean *firstness*, i.e., potentiality, indeterminacy or chance. *Firstness* necessarily is vague because it is pure quality and does not imply a referent and thus *firstness* — like *pleroma* — need to manifest itself in order to be grasped, but the moment it manifests itself it is already embraced by *secondness*, i.e., reaction, resistance, existence or quantity. *Pleroma* like *firstness* can only be cogitized through its appearences in our cognitive system, so *pleroma* might perhaps be said to correspond to *firstness* in its being in itself, but to *secondness* to the extent pleromatic phenomena are distinguished and described theoretically or practically.

Unlike Jung, however, Bateson did not see *creatura* and *pleroma* as ontological categories but rather as explanatory principles. This was a fortunate choice I suppose, but it must also be admitted that it leaves the Batesonian system a little naked. One would like to escape the implicit dualism of *pleroma* and *creature* not only by epistemizing the two terms. For this distinction does indeed seem to confer upon us a deep sense of understanding — and not just a tool for obtaining such understanding. Let me suggest that a solution to Bateson's dilemma at this point might be to give up the Kantian idea of the inaccessibility of the world's *pleromatic* existence.

Peirce did not accept the idea of the thing-in-itself as an unapproachable limit concept for our understanding. He rather, as John Deely explains in *Four ages*, saw

the realm of what exists "in itself" and what exists "phenomenally" or "in appearances" as "laced together," in fact, in experience and in cognition as such, by the action of signs in such a way that we can come to distinguish and know the one as part of the other by the critical control of objectivity that is the heart of science and philosophy alike beyond their differences of orientation. (Deely 2001: 613–614)

Peirce escapes the Kantian dead end of modern philosophy exactly because he does not follow modern philosophy in thinking that thought operates with concepts or ideas, claiming instead that thought operates on *signs*. This difference is radical: "Concepts refer, signs signify" (Deely 2001: 561). Signs are neither sensible things nor concepts, they are pure *relations*, i.e., irreducibly triadic relations connecting a sign vehicle to its object through the production of an interpretant; and this triadic relation is itself independent of the concrete physical status of the sign vehicles, the objects to which they might refer or the source from which they derive, be it nature or mind.

Thus, according to Peirce, Bateson's *pleroma* would not be inaccessible, but would as the subject matter for physics and chemistry gradually become better and better known to mankind as that primary substratum of the universe out of which life and human mind had gradually emerged. How this could happen is exactly what science and philosophy should now work together to solve. Some beginnings in this direction can be found (Pattee 1977; Salthe 1993; Weber 1998; Hoffmeyer 1999, 2001; Kauffman 2000; Deacon in prep.). And in this sense the existence of *creatura* would not presuppose some mystical "third position" from which to distinguish it from mindless *pleroma*. Rather the distinction of *creatura* from *pleroma* should be seen as an in-built possibility inherent to our universe only to become fully realized through the unfolding of the sharpened evolutionary potential of *creatura*.

4. Relative being

The interface between *pleroma* and *creatura* cannot be dealt with in classical biology for the simple reason that *creatura* or *thirdness* refers to aspects of the natural world that fall beyond the accepted ontology of natural science, and all attempts at explaining these concepts are therefore likely to be met with suspicions of mysticism. Even though most biologists do probably recognize that communicative processes are part of natural systems, they instinctively figure these processes in terms of the involved biochemical and genetic processes supposed to result in the

communicative behaviors. To talk of messages or distinctions just blurs our minds. This is the reductionist credo ruling nearly every department of biology throughout the whole world. And the simple question asked from these quarters when confronted with Bateson's writings (or bio-semiotics) normally is: What's all the mess about?

What it is all about, I think, is a quite simple thing, namely the reality of *relative being*. Relative being is a strangely obvious thing, which is nevertheless generally dismissed by science as not really "real." For example Jupiter has a number of moons circling around it; but the relations between the moons and the planet is not seen as anything real in itself, it does not add anything to a strict analysis of the properties of the individual celestial bodies themselves. The simple genitive case seems neatly to exhaust the whole relation: the moons are indeed Jupiter's. And it is of course true that in principle a relation could be drawn between any two physical objects in the world, and in all but a very few cases such relations would turn out to be absolutely uninteresting, whether seen from the point of view of science or from the point of view of ordinary people's everyday life. However, not all relations are of this kind; and to give an example of "relative being" that cannot easily be dismissed as ficticious let me (again following Deely) suggest "parenthood." For all we know, King Frederik the Ninth of Denmark was the father of Queen Margrethe the Second, though His Majesty passed away a long time ago, and we have no doubt that Margrethe will pass away too at some time in the future. Yet, due to royal destiny their relation will in all likelihood persist for a very long time as a relation of parenthood, father to daughter. This kind of "relative being" seems to have a reality of its own that cannot be reduced to the individual persons that substantiate the relation, and such relations have been called *ontological relations* (Deely 1990, 1994, 2001).

But are there ontological relations in nature? Bateson's work can be interpreted to answer this question in the affirmative. *Creatura* is exactly the domain of *pleroma* where relations are truly ontological, in the sense that these relations are not just descriptive devices but are in fact functional in an autonomous way. Relations in *pleroma* may also sometimes be thought of as functional, as for instance in astrology. Thus the multiple relations existing between the planets of our own solar system has indeed been intensely studied by scientists of the past, and they remain a matter of great concern to a lot of people believing in varieties of astrological theory. Since no likely mechanism whereby, say, a conjunction between Mars and Venus (as seen from Earth) could possibly influence the destiny of individuals or nations on Earth has been suggested, such a belief is generally rejected by scientists as superstition. We have absolutely no reason to believe that those relations have any distant causal effects on the

world qua relations. In this case — as in *pleroma* in general — it makes good sense to talk about related things rather than relations, and maybe the general unwillingness of science to accept relations as ontologically real owes much of its strength to the ancient — and now strangely revived — struggles science had to fight against dogmatic beliefs connected to mystical or religious persuasions.

When we turn to *creatura*, however, relations tend to become considerably more autonomous things. The shoulder, for instance, is a ball-and-socket joint that enables a person to raise, twist, bend, and move the arms forward, to the sides and behind. The head of the upper arm bone (humerus) is the ball and a circular depression (glenoid) in the shoulder bone (scapula) is the socket. A soft-tissue rim (labrum) surrounds and deepens the socket. The head of the upper arm bone is coated with a smooth, durable covering (articular cartilage) and the joint has a thin, inner lining (synovium) for smooth movement. The surrounding muscles and tendons provide stability and support. Here are a whole assembly of relations that are all remarkably adjusted to each other. The primary functional relation of course is that between the shape of the ball of the arm bone and the contour of the shoulder socket, and we can assume that this relation has indeed been functionally modulated by natural selection all along the way from the evolutionary origin as appendages or fins in fish. Clearly these relations are of quite another kind than the pleromatic relations pertaining to the planetary system. The relation in fact is so central to the function of the animal that one can hardly imagine the one bone change without a corresponding change occurring in the other bone. Or, if this should happen by an unfortunate mutation, the resulting individual would be crippled and leave little or no offspring. If on the other hand, a mutation should occur that affected both bones in a coordinated way, conserving their internal relation, the resulting individual might perhaps manage quite well in the competition. In this case, the relation as such does indeed seem more real than the individual bones making up the relation. And this state of affairs may well be the rule rather than the exception in the realm of *creatura*.

Quite generally, living systems have evolved a capacity for making anticipations: they must decide when to grow and when to withhold growth, when to move, when to hide, when to sing, and so on, and this way of adjusting the behavior depends on a capacity to predict the future at least to some limited extent. For instance, is it likely the sun will shine or not, is it likely that little flies will pass by if I make my web here, will the predator be fooled away from the nest if I pretend to have a broken wing, etc. Of course, in most cases it will be the instinctual system of the animal rather than the brain that makes this kind of prediction, but the logic is

the same: the animal profits from its ability (whether acquired through phylogeny or through ontogeny) to identify trustworthy regularities in the surroundings. And most — if not all — trustworthy regularities are indeed relations. For instance, the relation between length of daylight (more exactly degree days) and approaching summer that tells the beech when to burst into leafs; or the play of sun and shadows that tells the spider where to construct its web; or the relation between clumsy movements and an easy catch that tells the predator which individual prey animal to select, and thus tells the bird how to fool the predator away from its nest.

Now, in the first two of these examples (the beech and the spider) a certain organismic activity is released as a response to pure (non-semiotic) natural relations, so-called *categorical relations*, whereas in the third example the bird produces a fake categorical relation (clumsy behavior as expectedly related to easiness of catch) and then takes advantage of the semiotic or ontological relation established by the predator when it lets itself be fooled by a false sign. In this case, in other words, the bird fools the predator because it somehow (genetically or ontogenetically) "knows" how the predator is going to (mis)interpret the seeming categorical relation. Observe that, in this case, the predator may not always be fooled, we are not here dealing with normal (efficient) causality, but with semiotic causality: the predator may misinterpret the sign (the faked clumsy behavior), but it also may not.

Anticipation is of course a semiotic activity in which a sign is interpreted as a relation between something occurring now and something expected to occur later, like the dark cloud alarming us to an upcoming thunderstorm. From its very first beginnings in Augustine's writings in the fourth century the sign is conceived as something awakening us to infer something else: In Augustine a *signum* or "a sign is anything perceived which makes something besides itself come into awareness" (quoted from Deely 2001: 221). Deely suggests that Augustine happened on this definition as a "lucky fault" (2001: 216) due to his reluctance to learn the Greek language. The Greek term for sign, *semeion*, was taken by the Greeks to imply "natural signs," whereas "cultural signs" were termed symbols or names, and this categorization of signs of natural and human origin into distinct groups might well, had he mastered the Greek language, have hindered Augustine from abstracting the formal relational character of the sign from its embeddedness in different concrete realms of reality. Still Augustine's definition is too narrow in its focus on perception, since elements of awareness may well be signs also without being perceived. Augustine nevertheless pointed to the core of the matter when he defined a thing as "what has so far not been made use of to signify something" (Deely 2001: 221), implying that things may well be signs

but they need not be so, and also implying that the essence of the sign is its formal relational character of evoking an awareness of something which it is not itself, thereby implying the full triad of sign, object and interpretant (here the altered awareness). The evoking of such a triad is of course by no means exclusive for the workings of human awareness but is rather, as was later realized, a purely logical relation to be established in any system capable of autonomous anticipatory activity, i.e., by all systems belonging to *creatura*.

Just as predictability must precede prediction, a system of useful dyadic relations must first have been realized on planet Earth while it cooled down. Only then more sophisticated systems could survive based on a complicated capacity for anticipation that is, for bringing themselves in relation to the pre-established set of relations under the formation of true triadic or semiotic relations. And while the underlying system of dyadic relations may well be understood in terms of the things related, the emergence of true triadic semiosis in the shape of living beings and their activities established kinds of causality peculiar to this new form of *relative being*, causalities that are way too sophisticated to be decently grasped through the simple dynamics of dyadic relations between things. At this state of organic evolution *semiotic emergence* may increasingly have become an autonomous factor in the continued history of life (operating in a dynamic interplay with natural selection), and the general trend towards a realization of ever new forms of semiotic freedom was started.

Natural selection is itself ultimately dependent upon predictability if durable changes shall be produced. If niche conditions in generation-(n + 1) were not to some extent like niche conditions in the generation-n, "selected" properties in one generation would induce no systematic advantage in the next. In natural selection, a relation between the composition of phenotypes in the population or lineage and the actual ecological and semiotic niche conditions framing the life of this population is acted upon by individuals in such a way that a collective quasi-rational "populational" interpretant is the outcome in the form of an altered pool of genomes brought forward to the next generation. Here the niche occupies the logical position of the sign vehicle, the changing composition of phenotypic properties in the population is the object to which those niche conditions refer the lineage, and the interpretant is the changed genome composition of the lineage in the next generation. Through hundreds of millions of years such a mechanism is thought to bring about coordinated adjustments, like the one pertaining to the upper human arm bone and the shoulder socket.

Describing natural selection as a semiotic process implies that the apparent finality (or teleology) of the process becomes non-contradictive.

Semiosis or sign action is always embedded in sensible material processes and for that reason has a dynamic side that allows the communicative process to run, as well as a complementary or mediating side. The first of these sides is governed by the compulsive force of efficient causation; the second expresses the controlling agency of semiotic causation. And *semiotic causation*, bringing about things under guidance of interpretation in a local context, may be seen as a modern way of conceptualizing the kind of causation Aristotle called final causation, i.e., that cause "for the sake of which" something exists or occurs (Short 2002). Anticipation through skilled interpretation of indicators for temporal relations in a context of a particular survival project (or life strategy) will necessarily guide organismic behavior towards a local end.

Inside "materialistic" biology, however, the apparent finality of selection remains strangely unaccounted for. Darwinists normally escape the finality-problem by pointing out that selection only exhibits an "as if" teleology, or *teleonomy*. In explaining the purposeful nature of adaptive traits, one does of course make reference to the consequences of those traits for fitness; but, as has often been remarked, the consequences that explain the existence of adaptive traits are the consequences those traits *have had*; they are not the consequences that they *will have* or *can have*. And since the consequences precede the effects, there is no violation of the general scheme of efficient causation implied. And yet, Darwinists all the time talk about properties or types of traits as having been selected for, but the fact that it is not particular "traits" but rather "types of traits" that are selected for does nothing to detract from the obviously teleological nature of the process. At least it must be asked why some *types* of traits are "preferred" by nature (or natural selection) and not other "types." Are not preferences inconsistent with a non-teleological nature? As Short has recently concluded in a sharp analysis of the finality of Darwinian selection:

What I am suggesting is that we take seriously the currently popular talk of "selecting for" a property or type of trait (Sober 1984). Taking it seriously means accepting that talk at its face value: it describes evolutionary processes as shaped by types of outcome and it explains outcomes by citing the types those outcomes exemplify. But a type of outcome that explains its own exemplification is what translators of Aristotle have named a "final cause," as Darwin appears to have recognized. (Short 2002: 337)

Seen as a semiotic process, the finality of natural selection contains no mystery. Lineages are reproductively integrated systems of individual organisms and as such they certainly interact with the world in pursuing

their own supra-individual interests — in fact, to do so would seem to be the whole idea of being equipped with anticipatory capacity.

We conclude that not only is it absurd to deny the reality of *relative being*, because *relative being* rather than things (individual creatures or populations) is what evolution persistently optimizes, but by denying this reality one is prevented from developing a proper scientific understanding of biosemiosis and purposefulness. Instead, science has felt challenged to show that these phenomena are pseudo phenomena (epiphenomena), and that there is therefore no contradiction between our own existence as human first person beings and the purely material universe that created us. People whose intuitions contradict this understanding have had to go elsewhere to cope with their need for understanding how they could possibly belong in this universe. Increasingly natural science has come to look like an esoteric order of believers keeping the reality of non-believers at arms distance behind the walls of power based on a shared narrow ontology (reinforcing itself through the ever repeated memory of the preceding centuries of victorious revolt against the dogma of the Christian church), a consensus about what belongs and what does not belong to reality. How natural scientists manage to know so surely that they are part of a nature that in itself knows nothing is to me a complete mystery.

5.   A minded nature

In Stuart Kauffman's recent book *Investigations* an important part of the analysis turns on the question of the non-ergodicity of the universe, meaning that the universe never had the time it would have needed should its present state of affairs in any way be representative of its in-built possibilities (Kauffman 2000). The persistent movement of the universe into the "adjacent possible" precludes its ever reaching a state that depends on statistical likelihood. Instead, the universe is historical, for "history enters when the space of the possible that might have been explored is larger, or vastly larger, than what has actually occurred" (2000: 152).

And Stuart Kauffman brings his analysis to the following far reaching claim: "our biosphere and any biosphere expands the dimensionality of its adjacent possible, on average, as rapidly as it can" (Kauffman 2000: 151). Kauffman is fully aware that this "burgeoning order of the universe" cannot be reduced to matter alone, to entropy (or the negation of entropy, for that matter), to information, or to anything that simple. The propagation of organization and the subsequent growing diversification of the world is taken care of in Kauffman's terminology by *autonomous agents*, and these agents are, as we shall see, semiotic creatures. An

autonomous agent may be defined quite rigorously as an "autocatalytic system able to reproduce and able to perform one or more thermody-namic work cycles"; and in earlier work Kauffman had shown how such agents will be expected to self-organize given the kind of world our Earth system belongs to (Kauffman 1993). In *Investigations*, Kauffman explic-itly observes that this definition leads to more intractable questions of "measuring" or "recognition." For if work be defined as "the constrained release of energy," where will the constraints come from? At least it will take work to produce them, and this is not all: "autonomous agents also do often detect and measure and record displacements of external systems from equilibrium that can be used to extract work, then do extract work, propagating work and constraint construction, from their environment" (Kauffman 2000: 110).

And since a measurement is also always an act of interpretation, this immediately brings us to the core of biosemiotics and also poses the ques-tion of the origin of life in a new way which shall not, however, be further explored here (Von Neumann 1966; Pattee 1977; Hoffmeyer and Em-meche 1991; Hoffmeyer 1998, 2001; Ulanowicz 2002).

Kauffman's and Bateson's works stand in no contradictory relation to each other here, rather they reach into different aspects of that universal principle that Bateson called mind, and it will be one of the great tasks of biosemiotic analysis to bring these findings under a single consistent theo-retical umbrella.

As a first and very preliminary approach to such analysis, let me sug-gest here that the systematic growth of *semiotic freedom* in our biosphere is a concrete expression of Kauffman's "expanding dimensionality" of "the adjacent possible" as this principle pertains to the Earthly biosphere. Semiotic freedom may in fact be singled out as the only parameter that beyond any doubt has exhibited an increasing tendency throughout the evolutionary process.

Semiotic freedom was introduced in *Signs of meaning in the universe* (Hoffmeyer 1996) as a measure for the depth of meaning or the degree of sophistication of communicatory or interpretative activity. Let us for illustration consider first a case of relatively low semiotic freedom: court-ship display among water mites of the species *Neumannia papillator*. Here, the male exhibits a behavior called "courtship trembling," in which he will walk slowly around the female in the water vegetation while vi-brating his legs. This behavior almost certainly has arisen as an icon for the vibrations produced by prey animals swimming in the surface water. The female will often respond to male leg-trembling as if to prey, orien-tating itself to the source of the vibration and clutching the male in her forelegs. Male leg-trembling frequencies are well within the range of vi-

brations produced by the prey (copepods), and starvation experiments have shown that hungry females are more likely to orientate to and clutch at courting males. "It thus appears that male mites are capitalizing on female sensory adaptations for the detection of prey," writes Johnstone (1997). Courtship trembling is an obvious case of what we elsewhere have termed *semethic interaction* (from *semeion* and *ethos* = Greek for, respectively, sign and habit; Hoffmeyer 1997), i.e., a behavioral interaction between two or more agents in which habits and signs reciprocally scaffold each other. Thus one agent evolves the habit of interpreting the habits of another agent as a sign for releasing a distinct activity or habit that may then, in turn, become signs for a third agent, etc. In *N. papillator*, the prey animal's involuntary vibrations have become incorporated into male courtship behavior as an icon "destined" to release a distinct behavioral pattern in the female, allowing reproduction to take place. Whereas the courtship ritual is thus nicely scaffolded through a semiotic relation, the distinction between the leg-trembling as an icon for prey-behavior and for prey itself is still uncomfortably weak, as witnessed by the fact that hungry females respond more enthusiastically to the icons than do less hungry females.

Biological evolution can only proceed from what is already there, and the creation of "leg-trembling" as a scaffolding device for mating in water mites is typical. The evolutionary process may of course continue to modify the semiotic scaffolding devices it inherits in multiple ways, as may, for instance, be observed in the evolutionary line of balloon fly species belonging to the family *Empididae.* In these species, Sebeok tells us: "the males gather in swarms, carrying captured insects as 'wedding presents.' The male offers his gift to a female, which sits peaceable sucking it out while the male inseminates her. As soon as copulation is completed, the female drops her present, but if the empidid bride is still hungry, she may consume her amorous groom next" (Sebeok 1979: 18).

It has been shown that the packaging of these gifts vary greatly from species to species, and in one of the species the male even risks to approach the female "empty-handed." In an early evolutionary stage the female is offered just the juicy insect as such as gift, while in later stages the insect is wrapped in increasingly more silken thread, until the gift has reached the state of a real balloon. In the succeeding stages, writes Sebeok, the prey steadily diminishes in size, hence in food value, while the balloon increases commensurably in complexity (1979: 19). Sebeok notes that in the last of these stages, where the balloon is in fact empty, the link between the sign vehicle and the object for which it stands has become "arbitrary," and that in this case the sign "meets every viable definition of a symbol" (1979: 19). It is interesting that balloon flies are

sometimes used to illustrate so-called *phylogenetic inertia*, i.e., the tendency for structures or behavioral features to be conserved within a certain evolutionary line even when there have been significant evolutionary divergences between species. Thus, in the balloon fly line even the most recently evolved forms that are nectivorous (eating nectar) still offer balloons as "wedding gifts." In other words the balloon, empty here of course, remains a tool for courtship, even though insects have no longer any concrete meaning to the flies as food objects. Seen from a semiotic point of view this could hardly be called inertia, however, since the passage from an iconic mating sign to a symbolic mating sign constitutes a radical jump in semiotic freedom. All traces of the original dyadic relation have now been erased, and a purely triadic relation has taken over.

In both cases discussed here, as in invertebrates quite generally, I assume,[3] semiotic freedom is still very limited and should not be seen as a property of single individuals but rather as a property of the species or the evolutionary lineage. The symbolic character of the balloon in nectivorous species of *Empididae* is only true when considered as a species-specific behavioral trait having developed in the lineage as a kind of historical convention. At the level of the single individual fly, on the other hand, there is almost no semiotic freedom at all, since its behavior is fully controlled by the rather deterministic instinctual reflex systems. It should be noticed, however that behavioral determinacy is not complete. Thus, the occasional mutant that, for some reason, has developed a less rigorous release mechanism for mating behavior may, under rare exceptional conditions, survive and thereby contribute to the establishment of a bifurcation of the lineage, a nascent speciation event.

At later stages of evolution semiotic freedom becomes increasingly individualized. One major step in this process is the much-celebrated transition from a reptilian world to a mammalian and avian world. Mammalian and avian species in general seem to master significantly more sophisticated ecosemiotic settings than do reptilian species. The Swedish ethologist Sverre Sjölander has pointed out that while, for instance, a dog need not have a full picture of the hare all the time for hunting it efficiently, a snake will stop hunting its prey whenever it disappears from view (Sjölander 1995). The snake may well go on searching for the prey at the spot where it disappeared, but it will not calculate the eventual path the prey may have taken. The dog, on the other hand, will proceed away guided by an anticipation of where the hare would be expected to turn up next. "Thus it seems as if the representation or construct of the hare is 'running' in the internal world in a way corresponding to the actual hare in the actual world" writes Sjölander, so that "the sense organs are just used to correct the representational happenings and not to

create them'' (1995: 3). In the snake, on the contrary, hunting appears to be guided by a succession of quite independent sense modalities. Thus, striking of prey is governed by sight (or temperature sense organs), location of the struck prey is detected by smell, and the swallowing procedure is governed by touch. This lack of true intermodality in the snake makes it ''hard to imagine that the snake can harbor some form of a concept of a mouse in its brain'' (1995: 5). The snake apparently cannot integrate its sense modalities to form a central construct.

A moving animal in a moving world is confronted with a perpetual need for making split second choices of behavior. Such choices evidently will serve survival the best if they are based on some kind of anticipatory calculation that integrates inner body parameters such as emotional states, fatigue, hunger, memory into a range of external parameters as registered by the sense organs. As long as the animal has a survival strategy based on simple activity schemes in a predictable space of challenges these behavioral decisions may well be accounted for in terms of instinctive patterns of sensomotoric reflex circles. Such a direct connection between a stimulus and a corresponding behavioral act is perhaps what takes place in the snake so that in its Umwelt there are indeed no mice, but only things to be searched for, things to be stroked, and things for swallowing. In animals dealing with more complex patterns of challenges, a direct coupling of stimulus and behavior is no longer sufficiently flexible. Instead, the brained body as a holistic intentional unity must now make decisions based on split-second evaluations of unforeseeable events. Judging from the efficiency of modern computer programming in producing virtual realities, there is probably no *a priori* reason why brains could not have solved this problem by a sophisticated elaboration of the reflex circuit principle. But while computers are designed to obey strategies decided by the programmer, organisms had to develop designs obeying their own interests; and this is where the computer analogy may mislead us. Organisms must integrate their life project into their calculatory potential. The body as flesh and blood, therefore, from the very beginning, has to be part of the anticipatory and inventive brain models. We shall suggest this is the reason why nature invented the trick of producing an experienced holistic virtual reality, an internal icon more or less isomorphic in its properties with those parts of the real world that the animal could not safely ignore.[4] The exciting (threatening, attractive, etc.) aspects of the outer world in this way became internalized as inner threats, attractions, etc., thereby assuring the necessary immediate emotional bias in all choices of action. The hard problem was not just to calculate the path of action but to make sure this path of action was the most relevant given the esoteric life project of the individual animal, and this is the point

where the emotional apparatus must be brought to play. The iconic inner experience works as a holistic marker focusing the enormous diversity of calculations upon a single path of action (further discussed in Hoffmeyer 2006, from which the preceding paragraph was taken).

The core of semiotic freedom lies in the gain of *interpretance* it conveys. Interpretance may be defined as *the capacity of a system for responding to signs through the formation of "meaningful" interpretants*. High interpretance allows a system to "read" many sorts of "cues" in the surroundings and act upon them in ways that, in the given context, must be assumed to serve the proliferation of the system. In general, the prosperity of systems with high interpretance derives from the advantages a system may obtain by scaffolding of its behaviors or its developmental and physiological processes by means of semiotic controls. Semiotic controls widen the space of scaffolding by introducing indirect mechanisms, omens so to say, in addition to ordinary causal effects, fleeing from smoke, for instance, rather than from the pain inflicted upon the organism by the fire itself (the risk of substituting semiotic causality for efficient causality, on the other hand, is that signs, e.g., smoke, may be faked, whereas burns are the real thing, danger). The emergence of higher-order interpretance means that the system or agent acquires the ability to respond suitably to complex cues that might not be noticed or even be noticeable by lower-level systems. Thus, as we saw, mammals, but not reptiles, are generally capable of interpreting the speed and direction of movement of the prey animal as a complex sign telling them where to search for it in case it disappears from view. Contrary to reptiles, mammals seem capable of making a central construct of the prey animal in their minds or Umwelts, and this is an activity of classification or digitalization. As Bateson told us, the alternation between digital and analog processing is the key to emergence of higher level organization: "to get from the *name* to the *name of the name* we must go through the *process* of naming the name" (Bateson 1979: 206). Or, in a biosemiotic terminology, the emergence of higher-order interpretance in mammals departs from situated iconic and indexical semiosis (analogical codings) as we find it in reptilian hunting.

6.   Postmodern evolution thinking

The dramatic controversies surrounding evolutionary theory, in the past as in the present, are rooted in the belief that the natural history of our species is, after all, telling us an important story of whom we are. The so-called postmodern skepticism towards the "naïve" belief in scientific theories as privileged tools to an understanding of what nature really is

like, may have served to delegitimize the Darwinian story of humankind, but we all know that somehow we are indeed related to or even derived from the other creatures of this world. Modern kinds of natural theology such as creationism, or its recent new version as so-called *intelligent design* theory, may confuse the minds of many people but the inconsistencies of these "theories" *vis-à-vis* hard-won practical knowledge of the world — from medical to agricultural practices — cannot avoid leaving their track. The only reason why a theory like that of "intelligent design" can survive must be that the Darwinian story about who we are is itself lacking in credibility. People do generally not believe that their experiential worlds can be reduced to an aimless result of processes of natural selection among unconscious brutes (as claimed by neo-Darwinian orthodoxy), or that their pet animals are indeed unconscious creatures and that the experiential world even in humans is an epiphenomenon, a strange illusion produced by the brain (as claimed by Darwinian philosophers like Daniel Dennett [1991]).

Rather than dismissing this opposition to evolutionary theory as naive "folk-psychology," science should confront the undigested ontological (Newtonian) biases in its own deep structure that prevents it from producing less provocative and less absurd theories of how people arrived at this Earth. For, as we have seen, simply by admitting that our world cannot exhaustively be explained in terms of natural laws because it possesses an even deeper inherent interpretative agency, i.e., an associative potential for producing regularities by relating things to other things, and thus relating relations to other relations, it becomes possible to see how anticipatory processes and thus living entities could emerge in it. If, as Peirce suggested, instead of determinacy we allow indeterminacy to be a primary state of the universe, then natural laws becomes exceptions from the rule and as such in need of explanation. If so, natural laws may be seen as special derivations (habits) from an inherent interpretative agency of the universe rather than vice versa. Semiotic emergence, the ever increasing capacity of life for inventing new and more efficient kinds of interpretance may be seen thus as a sophisticated expression of this basic tendency to take habits as Peirce called it or, in Kauffman's wordings: the tendency of our biosphere to expand "the dimensionality of its adjacent possible, on the average, as rapidly as it can" (2000: 151).

We have finally arrived at the fourth of Deely's *Four ages*, the age where it dawns upon us that "the highest grade of reality is only reached by signs" (*CP* 2. 327). Newtonian science, and Darwinian theory in particular, were extremely important stepping stones on the route towards this fourth age, but stepping stones are dangerous things, because so many of us tend to think that the stones themselves are the important

thing, rather than the opportunity the stones offer to get us even further in the search for meaningful relations.

Notes

1. One should perhaps not exclude, that differences might have causal effects *qua* differences in complex chaotic systems, like vortices or typhoons, where shortlived lifelike properties might perhaps be said to arise.
2. Bateson explicitly remarks that he uses these two terms in the sense given to them in Carl Gustav Jung's (1967 [1916]) *Septem Sermones ad Mortuos*, rather than the sense given to them in Jung's later works where archetypes were included in Pleroma.
3. Octopuses may be an exception.
4. John Deely has pointed me to this very apt formulation of the Uexküllian position on neutral aspects of the Umwelt.

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The church of pragmatism

NATHAN HOUSER

Abstract

In his Four ages*, John Deely points to Peirce's 1905 Monist article, "What is pragmatism," as a key text in the history of human intellectual development. It was there that Peirce famously kissed his child (the word "pragmatism") good-bye and renamed his great contribution to philosophy "pragmaticism," a word "ugly enough to be safe from kidnappers." According to Deely, what Peirce did amounted to "disowning the most famous American development in all of philosophy's history"; and this, Deely says, has been an embarrassment to those Americans who "cherish the idea of a home-grown philosophy." Deely claims that to attempt to dismiss Peirce's rejection of "pragmatism" as a mere verbal quibble misses the point that what Peirce did was to step from the third great age of philosophy, where pragmatism dwells, into the fourth great age, the proper home for pragmaticism. There is, indeed, something right about this way of looking at things. But in an attempt to draw clear boundaries Deely misrepresents a reality that is fuzzier than the picture he paints. Peirce never meant to separate himself entirely from pragmatism, any more than Martin Luther intended to separate himself entirely from Catholic Christianity. Peirce only wanted to stake out a more genuine doctrine, a more precise one, free from some of the errors the popular pragmatists had fallen into. Peirce's separation from the other pragmatists was more like a schism within a church than a paradigm shift: Peirce remained a pragmatist, of sorts, to the end. But the errors he sought to expose and avoid were rooted in the precepts of the Third Age and Peirce's way forward, as Deely recognizes, was indeed the Way of Signs.*

Keywords: Deely; Peirce; pragmaticism; pragmatism.

In his remarkably substantial book (choose your ontology), *Four ages of understanding*, John Deely sets the date for the beginning of the postmodern era at May 14, 1867, the day Charles Peirce read his now justly famous "On a new list of categories" to the members of the American Academy of Arts and Sciences.[1] Deely admits, though, that May 14, 1867 is not an absolute beginning but only "a fixed point" in the "otherwise shifting sands" of time. Deely reminds us that "the wintry winds of modernity would continue to blow long past this early date, but as the official beginning of spring does not by itself bring an end to winter's blasts, still, it signals that the end is near" (Deely 2001: 637). This would seem to point to Peirce's "New list" as his pivotal contribution to the history of human intellectual development — and I suppose Deely would agree that it was. But Deely also points to Peirce's April 1905 *Monist* article, "What pragmatism is," as another key text in the history of human thought.

Deely recounts the story of that text. By 1905 pragmatism was very much in vogue and Peirce had watched with satisfaction as his word "pragmatism" had "gained general recognition" through the agency of William James and F. C. S. Schiller. But lately things were not going well and Peirce was conflicted, wishing on the one hand to enjoy his paternity of such a popular philosophical movement while, on the other hand, feeling more and more estranged from it. "[A]t present," Peirce lamented, "the word begins to be met with occasionally in the literary journals, where it gets abused in the merciless way that words have to expect when they fall into literary clutches" ("What pragmatism is," *CP* 5.414; *EP2*: 334, 1905). This was the pretext Peirce needed to drag in his ethics of terminology "over head and shoulders" and announce the birth of the word "pragmaticism" to "serve the precise purpose" of expressing his original definition. He would, he said, "kiss his child [pragmatism] goodbye and relinquish it to its higher destiny" — "pragmaticism," he said, "is ugly enough to be safe from kidnappers" (*CP* 5.414; *EP2*: 335, 1905). But the suggestion that it was the kidnapping of "pragmatism" by the literati that forced Peirce's hand may have been a friendly gesture towards James and Schiller, as is suggested by Peirce's revelation in later years that it was really *they* who had forced his hand. In 1909, in a paper Peirce wrote (but never finished) to honor Lady Welby, he admitted that he had taken up the new word, "pragmaticism," because "James and Schiller made [pragmatism] imply 'the will to believe,' the mutability of truth, the soundness of Zeno's refutation of motion, and pluralism generally" ("A sketch of logical critics" *EP* 2: 457, 1909). He wanted to distance his view from theirs. That much is clear. But how far from them did he really want to go? That's the question.

According to Deely, he wanted to be in *a different age* from James and Schiller, and their ilk, although perhaps Peirce didn't desire a distance quite that vast — but he clearly did want to create some distance between his pragmatism and theirs. Deely characterizes the message of Peirce's 1905 paper as "a ringing statement ... that what pragmatism is, is not pragmaticism" (Deely 2001: 616). Deely presses his point:

The greatest American philosopher disowning the most famous American development in all of philosophy's history is a considerable embarrassment to those who cherish the idea of a home-grown philosophy, and prefer being able to cite their own to the constant deferral of philosophical greatness to the European past of the "colonies." So it is understandable that those desirous of promoting philosophy with a distinctively American accent have largely been discomfited or annoyed by Peirce's disavowal of "pragmatism," and have tried to pass it off as merely a verbal quibble, merely a far from isolated manifestation of the cantankerous prima-donnaness of a notably eccentric individual. (Deely 2001: 616)

While I might quibble a little with Deely's implication that Peirce's pragmaticism has a less "distinctively American accent" than James's and Dewey's pragmatism, I agree that Peirce's "disavowal" was no mere verbal quibble: a very serious distinction was being made. But was Peirce's *distancing* from James and Schiller really a *disavowal?* Did Peirce really disown pragmatism? I'm not convinced that he did — but let me add that even if I'm right about this it doesn't pose a serious problem for Deely's story of the four ages because my concern is directed more to Deely's rhetoric than to the substance of his account. However, my view of the matter is consistent with the claim that there is a distinctive classical American philosophy that is probably best characterized as pragmatism, but in a vague sense that includes Peirce's pragmaticism along with the pragmatisms of James, Dewey, and the other classical American pragmatists (Houser forthcoming).

Let's review Peirce's concerns from around this time. On March 7, 1904 he wrote to William James: "The humanistic element of pragmatism is very true and important and impressive; but I do not think that the doctrine can be *proved* in that way. The present generation likes to skip proofs ... You and Schiller carry pragmatism too far for me. I don't want to exaggerate it but keep it within the bounds to which the evidences of it are limited" (*EP* 2: xxvii). The year before, in his Harvard Lectures, Peirce had turned his attention vigorously to the quest to prove pragmatism and from that time on for the rest of his life he judged his conception of pragmatism (his pragmaticism) by its fitness to be subjected to the rigors of philosophical proof. Notice what he wrote in the very paper under consideration, his 1905 "What pragmatism is":

Much as the writer has gained from the perusal of what other pragmatists have written, he still thinks there is a decisive advantage in his original conception of the doctrine. From this original form every truth that follows from any of the other forms can be deduced, while some errors can be avoided into which other pragmatists have fallen. The original view appears, too, to be a more compact and unitary conception than the others. But its capital merit, in the writer's eyes, is that it more readily connects itself with a critical proof of its truth. (*EP2*: 335)

We should bear in mind that "What pragmatism is" was part of a series of articles that was intended to provide a proof of pragmatism and it was difficulties Peirce ran into trying to fulfill that purpose that caused him to abandon the series.

It is important, then, to take seriously what Peirce says here, that he favors his original conception especially because it is more susceptible of proof. But note, too, that he points to errors of other pragmatists that the pragmaticist can avoid. What are some of these errors? As I've already noted, Peirce said that he had separated his pragmaticism from James's and Shiller's pragmatism because they made the word "pragmatism" imply "the will to believe, the mutability of truth, the soundness of Zeno's refutation of motion, and pluralism generally." I will refer you to Deely for a full answer to this question because he gives a good account of the errors of pragmatism that pragmaticism corrects or avoids. Simply put, they are the errors due to the inherent nominalism of pragmatism of James and his followers. Deely notes that

[i]n all the variants of pragmatism, practical, experimental effects are made the determination of truth. Three things distinguish pragmaticism from such a simple, positivistic doctrine, which is compatible with nominalism: first, its retention of a purified philosophy, second, its full acceptance of the main body of our instinctive beliefs; and thirdly, its strenuous insistence upon the truth of scholastic realism (or a close approximation to [it]). (Deely 2001: 617)

Here it is worth noting that in the same year Peirce published "What pragmatism is" he followed it with a second paper in the series, "Issues of pragmaticism," where he restated his pragmatic maxim in semiotic terms. He identified the meaning that pragmaticism seeks to enunciate as that of symbols rather than simple conceptions. The thrust of this second article was to articulate his forms of critical common-sensism and scholastic realism, which he regarded as consequences (or "issues") of pragmaticism. He extended his realism to include the acceptance of "real vagues" and "real possibilities," and he pointed out that "it is the reality of some possibilities that pragmaticism is most concerned to insist upon."

According to Max Fisch, *pragmaticism* had now become *pragmatism* "purged of the nominalistic dross of its original exposition" (Fisch 1986: 195). And we know that soon afterwards, in 1907, Peirce began working on his famous letter to *The Nation* (MS 318) in which he systematically reconceived his pragmaticism in terms of his theory of signs. Here Peirce makes a substantial contribution to John Deely's main argument. I have to point out, however, that in MS 318 Peirce was perfectly willing to revert to the name "pragmatism" for his doctrine, which he represented as a variant of the more general view. He even went so far as to say that between James's definition of pragmatism and his there "is certainly a slight theoretical divergence" but that this divergence "for the most part, becomes evanescent in practice; and though we may differ on important questions of philosophy, — especially as regards the infinite and the absolute, — I am inclined to think that the discrepancies reside in other than the pragmatistic ingredients of our thought" (*EP* 2: 401).

I do not want to minimize the differences that Deely has so aptly identified. There is, indeed, something right about his way of looking at things; but in an attempt to draw clear boundaries Deely misrepresents a reality that is fuzzier than the picture he paints. Peirce never meant to separate himself entirely from pragmatism, any more than Martin Luther intended to separate himself entirely from Christianity; Peirce only wanted to stake out a more precise doctrine, one free of the errors (perhaps we can say "heresies") the popular pragmatists had fallen into, to be sure, but also one more susceptible of philosophical proof. Peirce's separation from the other pragmatists was more like a schism within a church than a paradigm shift. Peirce remained a pragmatist, of sorts, until the end. But it is true that the errors he sought to expose and avoid were rooted in the precepts of the third age, the way of ideas, and that Peirce's way forward, as Deely recognizes, was indeed the way of signs.

Now if I am right in thinking that Peirce was refining and specifying his pragmatic doctrine, his sect, but not abandoning the larger church, then, while Deely is certainly right in holding that there must be telling differences, there should also be some substantial common ground. I think there is but I admit that it is not easy to find it except in the overlapping family-resemblance way that Wittgenstein made famous. This was more or less established as long ago as 1908 when Arthor O. Lovejoy "discriminated thirteen meanings of pragmatism and showed that some of them were in contradiction with one another" (Wiener 1973: 551). In his excellent article on pragmatism in the *Dictionary of the history of ideas*, Philip Wiener discussed the problem, raised by Lovejoy, "whether there was any coherent core of ideas that could define [pragmatism]."

"At one extremity," Wiener notes, "one can find self-styled pragmatists with a Jamesian tendency to regard their personal experience as a sufficient source and test of truth; the extreme group in the undefined fringe can only charitably be included in Peirce's ideal community of minds whose opinions in the long run are destined to converge on the one unalterable Platonic truth" (Wiener 1973: 551). But we don't have to be told any more that there are some significant differences. The question is whether even these variants, or sects, notwithstanding their extreme differences, still belong to the same general kind.

With this in mind, Wiener reviews the attempt by H. S. Thayer to find this common ground. Thayer suggests that pragmatism, in general, stands for

(1) a procedural rule for explicating meanings of certain philosophical and scientific concepts; (2) "a theory of knowledge, experience, and reality maintaining that (a) thought and knowledge are biologically and socially evolved modes by means of adaptation" and control; (b) reality is transitional and thought is a guide to satisfying interests or realizing purposes; (c) "all knowledge is a behavioral process evaluative of future experience" and thinking is experimentally aimed at organizing, planning, or controlling future experience; and (3) "a broad philosophic attitude toward our conceptualization of experience." (Thayer 1968: 431, quoted in Wiener 1973: 552)

But Wiener believes that Thayer does not "dwell sufficiently on the varied character and conflicting theories of method, knowledge, and reality maintained by pragmatists of different schools in diverse fields of thought and of diverse cultural and historical backgrounds" (Wiener 1973: 552). Weiner says that

The historical and cultural facets of various pragmatisms do not all fit under any general definition for two reasons. First, the philosophical writings of a leading pragmatist like C. S. Peirce are concerned with and defend theories of truth and reality that are not merely procedural, behavioristic, transitional, or conceptual. Peirce's metaphysical writings contain a speculative, idealistic version of pragmatism which he called "pragmaticism" in order to disassociate his philosophy from the pragmatisms of William James and James's disciple F. C. S. Schiller. Secondly, whole areas of knowledge, other than those mentioned in the general definition above, have been discussed by diverse pragmatists in their interpretations of the nature of history, of law and politics, of language, and of mathematical logic. (Wiener 1973: 552)

But it seems to me that Wiener has slipped back to focusing on the differences without attending to the common vision of pragmatists, however

vague and unclear it may be. Thayer's attempt certainly highlights some important commonalities and even if he didn't find a satisfactory definition he found some common ground. Reinterpreting Thayer's findings we might say that pragmatists, generally speaking, seek a procedural rule for explicating meanings; regard thought and knowledge as biologically and socially based evolutionary outcomes or adaptations and regard knowledge to fundamentally involve behavioral processes "evaluative of future experience," which I take to mean something akin to software programs; and finally, have a common attitude toward the conceptualization of experience. Sure this is fuzzy. But I'm only looking for common ground, something that is common to pragmatists that distinguishes them from, say, analytic philosophers. I'm looking for a vision. The pragmatist sect sees evolution and growth as keys to understanding human nature and thought, and regards thought as a function of organisms tending to help them survive in the dynamics of future experience; is skeptical of traditional values, absolutes, and even theories; is very attentive to the impact of experience and the role of action in the development of intelligence, recognizing the importance of chance; is attracted to the methods of science; and generally abandons the quest for permanence and certainty.[2]

I hesitate to suggest this, but why not look in a dictionary to see how well our lexicographers have succeeded in defining pragmatism. According to the *Merriam-Webster online dictionary*, pragmatism is "an American movement in philosophy founded by C. S. Peirce and William James and marked by the doctrines that the meaning of conceptions is to be sought in their practical bearings, that the function of thought is to guide action, and that truth is preeminently to be tested by the practical consequences of belief."

I think that's pretty good — as far as it goes. There are three key elements here: (1) meaning is associated with practical bearings; (2) the function of thought is taken to be to guide action; and (3) the test of truth is said to be in the practical consequences of belief. These are indeed keys to understanding pragmatism in general. If we go to the OED for an important historical illustration of the use of the term "pragmatism," we find the famous 1898 quotation from William James's public introduction of the word: "The principal of practicalism or pragmatism, as [C. S. Peirce] called it, when I first heard him enunciate it at Cambridge [Mass.] in the early '70s, is the clue ... by following which ... we may keep our feet upon the proper trail." I like James's allusion to staying on the proper trail. This shows that from the beginning pragmatism was understood to have something to do with the guiding purpose, or function, of thought. This is certainly a key to the pragmatic vision.

pragmaticism (prag-mat'i-sizm), *n.* [*prag-matic* + *-ism*.] A special and limited form of pragmatism, in which the pragmatism is restricted to the determining of the meaning of concepts (particularly of philosophic concepts) by consideration of the experimental differences in the conduct of life which would conceivably result from the affirmation or denial of the meaning in question.

He [the writer] framed the theory that a conception, that is, the rational purport of a word or other expression, lies exclusively in its conceivable bearing upon the conduct of life. . . . To serve the precise purpose of expressing the original definition, he begs to announce the birth of the word "*pragmaticism*."
    C. S. Peirce, in The Monist, April, 1905, p. 166.

pragmatism, *n.* 3. In *philos.*, a method of thought, a general movement or tendency of thought, and a specific school, in which stress is placed upon practical consequences and practical values as standards for explicating philosophic conceptions and as tests for determining their value and, especially, their truth. The word is used in a variety of senses, of greater or less breadth and definiteness. The following meanings of the term are arranged in the order of descending generality: (*a*) An attitude of mind, namely that of "looking away from first things, principles, 'categories,' supposed necessities, and looking toward last things, fruits, consequences, facts." *W. James*, Pragmatism, a New Name for Some Old Ways of Thinking, p. 55. (*b*) A theory concerning the proper method of determining the meaning of conceptions. "Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object." *C. S. Peirce*, in Baldwin's Dict. of Philos. and Psychol., II. This theory was first propounded by Mr. Peirce in an article upon "How to Make our Ideas Clear" in the "Popular Science Monthly" in 1878. The term 'pragmatism' does not, however, appear there. In an article in the "Monist" for 1905, Mr. Peirce says that he "has used it continually in philosophic conversation, since, perhaps, the mid-seventies." The term was publicly introduced in print by Professor William James in 1898 in an address upon "Philosophical Conceptions and Practical Realities," in which the authorship of the term and of the method is credited to Mr. Peirce. The latter has recently used the term 'pragmaticism' to express this meaning. (*c*) The theory that the processes and the materials of knowledge are determined by practical or purposive considerations—that there is no such thing as knowledge determined by exclusively theoretical, speculative, or abstract intellectual considerations. This definition expresses the net or mean sense of the term in its various uses. "Now quite the most striking feature of the new

theory was its recognition of an inseparable connection between rational cognition and rational purpose; and that consideration it was which determined the preference for the name 'pragmatism.'" *C. S. Peirce*, in The Monist, 1905. F. C. S. Schiller has defined pragmatism as "the thorough recognition that the purposive character of mental life generally must influence and pervade also our most remotely cognitive activities." Humanism, Philosophic Essays, p. 8.

Pragmatism — by which I mean the doctrine that reality possesses practical character and that this character is most efficaciously expressed in the function of intelligence.
    J. Dewey, in Essays Philosophical and Psychological, p. 159.

(*d*) A theory of the nature of truth, namely, that the correspondence between fact and idea which constitutes truth consists in the power of the idea in question to work satisfactorily, or to produce the results intended by it.

Such then would be the scope of *pragmatism* —first, a method, and second, a genetic theory of what is meant by truth.   *W. James*, Pragmatism, p. 65.

(*e*) A metaphysical theory regarding the nature of reality, namely that it is still in process of making, and that human ideas and efforts play a fundamental role in its making: the equivalent of *humanism* as a metaphysical term.

The essential contrast is that for rationalism reality is ready-made and complete from all eternity, while for *pragmatism* it is still in the making, and awaits part of its complexion from the future.
    W. James, Pragmatism, p. 257.

Pragmatism . . . is a conscious application to epistemology (or logic) of a teleological psychology, which implies, ultimately, a voluntaristic metaphysic.
    F. C. S. Schiller, Studies in Humanism, p. 12.

Figure 1. *Definitions of "pragmaticism" and "pragmatism" from the* Supplement to the century dictionary

Finally, from the *Supplement to the century dictionary*, I will simply note the interesting definition of "pragmatism" here reproduced. Although this definition was written by John Dewey, I would be surprised if Peirce, a principal contributor to the *Century dictionary*, had not seen it in advance of publication. Note that Dewey remarks that Peirce had recently taken up the name "pragmaticism" to carry his original meaning. Also notice that just above "pragmatism" the word "pragmaticism" is defined, and the definition begins by noting that pragmaticism is a special and limited form of pragmatism. This definition was written by Peirce himself.

    None of this proves that pragmatism and pragmaticism have more in common than not, but I think these considerations are indicative that Deely has been too extreme in claiming so pointedly that pragmaticism is not pragmatism. That is something like saying that Calvanism is not

Christianity because it attacks a form of Christianity or because it rejects some of the doctrines of other Christians. Notice what Peirce wrote to Calderoni in 1905:

In the April number of the *Monist* [''What pragmatism is,'' 1905] I proposed that the word ''pragmatism'' should hereafter be used somewhat loosely to signify affiliation with Schiller, James, Dewey, Royce, and the rest of us, while the particular doctrine which I invented the word to denote, which is your first kind of pragmatism, should be called ''pragmaticism.'' The extra syllable will indicate the narrower meaning. (*CP* 8.205–8.206, c. 1905)

''Schiller, James, Dewey, Royce, and the rest of us,'' Peirce wrote. He has put himself in the camp with Deely's pragmatists though reserving the right to a narrower interpretation. It is as though he sees himself as belonging to the same philosophical family, or maybe the same philosophic church. He is a member of the church of pragmatism though not of the same sect as James and Schiller. There may have been a schism, with some important doctrines denied by one side or the other, but Peirce never completely rejected the pragmatist faith.

But none of this is to deny that Peirce's pragmaticism, which so clearly separated itself from the nominalism of some of the pragmatists, and which fully incorporated Peirce's theory of signs, belongs in the fourth great age of understanding while most other pragmatists found their footing mainly in the Modern Age. This, I believe, is all Deely requires for his critique of the development of understanding. But pragmatism as a general doctrine, guided by a vision which, if not altogether common is largely common, at least to the classic pragmatists, crosses over that great divide between the third and fourth ages, and belongs, as a *general doctrine*, as the *church of pragmatism*, in neither exclusively. So the reality is fuzzier than the picture Deely painted even though Peirce's pragmaticism does stand out sharply within the larger pragmatism and may well be the theoretical marker, the index if you will, that points to the beginning of the age of signs.

Notes

1. This paper in an earlier form was presented to the symposium on John Deely's *Four ages of understanding* at the annual meeting of the Semiotic Society of America, Purdue University, West Lafayette, Indiana, September 29, 2006.
2. We might also look for common ground in the context of ideas that spawned and came to characterize classical American philosophy. According to Max H. Fisch, who introduced to expression ''Classic American philosophy'' to identify that rich defining period

of American intellectual development that gave rise to pragmatism, the themes and tendencies that expressed the leading and and most characteristic philosophic tendencies of the time were the rejection of Cartesianism, the naturalizing of mind, the mentalizing of nature, a shift of focus from substance to process, the deflation of the eternal, a turn from the past to the future, the connection of thought with purpose, a rejection of the spectator theory of knowledge, the identification of thought with semiosis, a shift from seminary to laboratory philosophy, attention to the cooperative nature of inquiry, a privileging of method, an interest in applying scientific method to the study of society, and an idealization of the great community. (See Fisch's 1996 [1951] "General introduction" to *Classic American philosophers*.) When one notices that the six philosophers that Fisch identifies as the principal classic American philosophers are Peirce, James, Royce, Santayana, Dewey, and Whitehead, it becomes clear that the ethos of classical American philosophy is essentially that of classical pragmatism. See Houser (forthcoming), for a discussion of classical American philosophy as the common ground of classical pragmatism. For an earlier attempt to isolate pragmatism's common ground, see the section "What is pragmatism" from Houser (2003).

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Is modernity really so bad? John Deely and Husserl's phenomenology

DEREK S. JEFFREYS

Abstract

This essay critically assesses John Deely's treatment of Edmund Hus-
serl's phenomenology in the Four ages of understanding. *First, it outlines*
Deely's compelling account of how the modern "Way of Ideas" confuses
representation and signification. Second, it notes Deely's charge that Hus-
serl is an idealist who thinks the mind constitutes what it knows. Third, it
maintains that the early Husserl cannot be an idealist because he attacks
psychologism, nominalism, and modern representational epistemologies.
Fourth, discussing intentionality, the essay considers Husserl's account of
how the mind discovers that mental contents are ideal, atemporal entities.
Finally, it suggests that by labeling Husserl an idealist, Deely disregards
valuable aspects of modernity.

Keywords: John Deely; phenomenology; Edmund Husserl; idealism;
Thomism; intentionality.

> Something new and positive has also emerged
> in the past four centuries. It is as though the
> ontological understanding of man and being
> at the end of the Middle Ages still left aspects
> to be developed. This surely is the fate of the
> finite condition of human understanding. In
> any given complex, as one aspect is brought
> forward, another may be pushed into the
> background.
> — Schmitz (2007: 295)

1.   Introduction

John Deely's *Four ages of understanding* is a remarkable book unlike any in the English language. Detailing the rich history of signs from pre-modern societies to twenty-first century semiotics, Deely maintains that we have entered a postmodern era. His analysis should interest many contemporary thinkers, but holds particular significance for Thomists. Deely carefully analyzes Thomas' philosophy and John of Poinsot's work, and links Thomism to Charles Sanders Peirce. For him, sign-theory completes and enhances medieval thought, a novel thesis among Thomistic thinkers.[1]

Because Deely engages Thomism so carefully, I was surprised at how he casually brands phenomenology a philosophical failure. For many philosophers, Edmund Husserl's 1901 work, *Logical investigations*, marked a watershed moment in modern philosophy. They believed it responded brilliantly to attempts to reduce philosophy to psychology or other sciences. In the early twentieth-century, Adolf Reinach, Edith Stein, Roman Ingarden, Dietrich Von Hildebrand and others welcomed Husserl's new approach to philosophy.[2] With them, the "possibility of recovering authentic knowledge of the amazing richness of manifold fields of being, including the human self, and especially the inexhaustible ideal realms of essence, resulted in a powerful surge of philosophical interest and activity" (Willard 2002: 73). For some, Husserl's work also enhanced Thomism. For example, Husserl's research assistant Edith Stein initially wrote on phenomenology, and then turned to Thomistic thought later in her career. Similarly, the late Pope John Paul II insisted that phenomenology illuminates Thomistic thought by emphasizing subjectivity. For these thinkers, Husserl offers important philosophical resources for Thomistic thought (Stein 2000; Wojtyla 1960).

Unfortunately, Deely ignores this fruitful philosophical work, dismissing phenomenology as "idealism." In this essay, I dissent from his assessment of Husserl's phenomenology, and urge Deely to look more carefully at Husserl's early work. First, I outline Deely's compelling account of how the modern "Way of Ideas" confuses representation and signification. Second, I note his charge that Husserl is an idealist who thinks the mind constitutes or makes what it knows. Third, I maintain that the early Husserl cannot be an idealist because he attacks psychologism, nominalism, and modern representational epistemologies. Fourth, discussing intentionality, I outline Husserl's distinction between mental acts, objects, and contents, emphasizing how the mind discovers that mental contents are ideal, atemporal entities. Finally, I argue that by labeling Husserl an "idealist," Deely disregards valuable aspects of modernity.

2. The flawed Way of Ideas

Deely divides the history of Western philosophy into Ancient, Latin, Modern, and Postmodern periods. He reserves his strongest criticism for the Modern period, at one point even noting how little time it endured. Deely summarizes his case against modern philosophy by saying that "for want of a doctrine of signs" it "takes an epistemological turn that leads the mind into and upon itself" (Deely 2001: 446). Modern philosophers, he maintains, cannot defend the "realm of mind-independent being such as the ancients and the medievals, together with the founders of modern science, had fancied themselves to discern" (Deely 2001: 446). Modern thought operates schizophrenically, proclaiming scientific objectivity, while undermining it philosophically.

This morass originates in a deep epistemological confusion about representation and signification. With representation, we have the "standing of one thing for another, whether "the other" might not really be *other* but rather *the same* thing" (Deely 2001: 695, italics in the original). In contrast, with signification, "an object or a concept can only present something other than itself" (Deely 2001: 520). It is *not* primarily an object of cognition, but a foundation for "relations constitutive of signs" (Deely 2001: 543). In fact, signification "always and necessarily consists in the relation as such, which is over and above that characteristic of a material being or psychological state of an organism upon which the relation itself is founded" (Deely 2001: 543). This relation radically distinguishes it from a representation.

Every sign-relation has three terms, a sign-vehicle, a signified, and an interpretant (Deely 2001: 374). What we often think of as a sign (such as a stop sign) is in fact a sign-vehicle giving rise to a sign-relation. The significant is what the sign-vehicle signifies, but what is signified must be received by an interpretant. Latin philosophy (as Deely exhaustively shows) only gradually and imperfectly recognized the sign's triadic structure. For example, Latins often confuse the sign and the sign-vehicle. Similarly, they sometimes think the interpretant can only be a mind. In contrast, Peirce rejects the mind/interpretant equation, creating the opportunity for modern zoosemiotics (the study of signs in the animal world) to develop (Deely 2001: 634–635).[3] The sign-relation's triadic structure, Deely maintains, only becomes fully clear with Peirce's writings.

Epistemologically, the sign-relation is vital because it transcends modes of being. Aquinas and other Latin thinkers distinguish between *ens reale* (mind-independent being) and *ens rationis* (mind-dependent being). However, we cannot reduce the sign-relation to either of these modes of being

because it can be each of the "opposed orders" of being (Deely 2001: 476). Poinsot was the first thinker to fully develop this feature of the sign-relation. St. Augustine knew that a natural sign like fire need not depend on a mind, while a conventional one like a flag is mind-dependent. However, Poinsot argues that a sign can sometimes be mind-dependent and at others times mind-independent. For example, a fossil is a sign-vehicle that can create both mind-dependent and mind-independent relations. Prior to its discovery, it creates a relation that no mind grasps (except for a Divine Mind) (Deely 2001: 638–639). However, once paleontologists discover it, the sign-relation becomes mind-dependent. Thus, "the being proper to sign consists, in every case of an ontological relation (a *relation secundum esse* as expressing the single definable structure common to relation regardless of the circumstances extraneously further differentiating the realization of this structure as categorical or "rational", physical or objective, at a given moment)" (Deely 2001: 430). By bridging diverse modes of existence, the sign-relation thus prevents solipsism and subjectivism.

Modern thinkers unfortunately lack any sense of the "priority of signs to objects" (Deely 2001: 520). They falsely assume that "the very ideas formed by the human mind are as such the immediate and direct objects of experience at every level of cognitive activity" (Deely 2001: 695). As a result, they create insoluble epistemological dilemmas about how ideas relate to extra-mental realities. For example, many modern philosophers debate the existence of the external world.[4] This pseudo-problem, Deely maintains, originates in Descartes, and appears in Locke, Hume, Berkeley, and others. Naturally, if we only know our ideas we will struggle to relate to the external world. Descartes illustrates this difficulty well, pursuing a path "according to which there is nothing about ideas themselves which makes them link up with something beyond the subjectivity of the knower" (Deely 2001: 546). For Descartes, ideas exist independently of their relations to sensation and the world outside the mind. After him, ideas often represent only themselves.[5] Berkeley, Deely suggests, reasonably concludes from representationalism that we know only our ideas. For example, if knowing a house means I know its idea, I have no reason to think the house enjoys mind-independent existence (Deely 2001: 549). Instead, I should conclude that it is an idea. Far from being an anomaly, then, Berkeley simply articulates modern thought's conceptual consequences.

Surveying this history, Deely maintains that the early moderns could conceive of no alternative to the Ways of Ideas. Their imaginative failure originates in part from the way they ignore Poinsot's ground-breaking work on signs. Sadly, Poinsot represents modernity's "road not taken"

because he links mind-dependent and mind-independent realities. For him, all "images and all ideas" are "related to their objects as signs to signifcates" (Deely 2001: 534). Sensations, perceptions, and acts of understanding form a "continuous network, tissue, or web of sign relations" (Deely 2001: 534). This remarkable vision dissolves the pseudo-problem of the existence of the external world. It also connects nature and culture, overcoming the many modern attempts to separate human consciousness from nature. For Deely, then, rather than being a marginal specialization in the philosophical enterprise, the doctrine of signs is "something central to it and at its core" (Deely 2001: 534). Modern philosophers fail to realize its centrality, and therefore, cannot escape their own epistemological traps.

3. Husserl and idealism

By failing to distinguish between representation and signification, Deely maintains, modern philosophy inevitably degenerates into idealism. He defines idealism as the "distinctive position proper to modern philosophy as it developed from Descartes to Kant in revealing, by a series of logical consequences, that the common assumption of the early moderns (that ideas of the understanding are the direct objects of experience) leads inevitably to the conclusion that whatever the mind knows the mind itself constitutes or makes" (Deely 2001: 691). Deely labels Husserl an idealist[6] whose work "becomes but an extension of modern rationalism trapped within the boundaries of the modern idealist paradigm, rather than a work of semiotic" (Deely 2001: 220, note 30). Linking Husserl to Descartes, Deely notes that he "thought he was dong something radically new with his phenomenology. But one day he realized what was up and renamed his planned lecture series, which became one of his most important books, the *Cartesian Meditations*" (Deely 2001: 581). On Deely's account, Husserl is an idealist who fails to overcome modern philosophy's impasses.

4. Idealism and psychologism

This idealist reading of Husserl ignores key phenomenological developments and distinctions. In particular, it disregards the intellectual milieu of Husserl's early years, in which logicians expressed deep worries about modern representationalism. Gotlieb Frege is the most well-known of such thinkers, but others also voiced concerns about modern epistemology. In

his masterful study of Husserl's early philosophy, Dallas Willard discusses how Herman Lotze, Christopher Sigwart and others objected to using representation to explain logic (Willard 1984). Some insisted on distinguishing between representation and propositional content. For example, Lotze sharply differentiates *Vorstellungen* (ideas) from *Ideen* (Ideas). For him, ideas belong to the world of becoming, in which real events occur. In contrast, Ideas are atemporal, and include contents, propositions and truths (Willard 1984: 152–153). Here is a quote from Lotze expressing this point well:

Now ideas (*Vorstellungen*), insofar as they are present in our minds, possess reality in the sense of an Event — they occur in us; for as expressions of an activity of representing they are never finished Being, but a continual Becoming; their content, on the other hand, so far as we regard it in abstraction from the representing activity which we direct to it, can no longer be said to occur, through neither again does it exist as things exist. Rather, it only obtains. (Lotze, quoted in Willard 1984: 152)[7]

For Lotze, representations cannot ground knowledge because they are changing and unstable mental events in an individual mind. To establish logical truths, we need stable, atemporal mental contents. Frege makes similar comments, noting that

Logic, in no way, is part of psychology. The Pythagorean Theorem expresses the same thought for all men, while each person has his own representations, feelings, resolutions which are different from those of every other person. Thoughts are not psychic structures, and thinking is not an inner producing and forming, but an apprehension of thoughts which are already objectively given. (Frege, quoted in Mohanty 1982: 122)

Frege maintains that representationalism undermines knowledge because it identifies it with changing psychological states. He, Lotze, Sigwart, and others clearly recognize a significant problem in representational epistemologies.

Creatively responding to these intellectual currents, Husserl develops his brilliant criticism of psychologism. Psychologism was a nineteenth-century approach to logic that reduced it to psychology. In the "Forward" to the *Logical investigations*, Husserl describes how he initially believed that psychology "was the science from which logic in general, and the logic of the deductive sciences, had to hope for philosophical clarification" (Husserl 2001: 2).[8] However, he became disenchanted with this thesis, particularly by studying Bernard Bolzano, Frege, and others.[9] He

"became more and more disquieted by doubts of principle, as to how to reconcile the objectivity of mathematics, and all science in general, with a psychological foundation for logic" (Husserl 2001: 2). In the *Logical investigations*, he thus turns radically against psychologism.

Psychologism was originally a thesis about logic, but phenomenologists gradually extended it to other areas of philosophy and the social sciences. J. N. Mohanty helpfully distinguishes between weak and strong psychologism. Weak psychologism maintains that psychological investigation is a necessary, but not sufficient condition for understanding logic. Strong psychologism, in contrast, asserts that psychology constitutes "both the necessary and sufficient conditions for inquiry into the foundation of logic" (Mohanty 1982: 20). Husserl never denies psychology's importance, and shows a deep interest in William James and other psychologists. However, he repudiates strong psychologism. Moving beyond logic, I will understand psychologism as the claim that "things like logic, truth, verification, evidence, and reasoning are simply empirical activities of our psyche" (Sokolowski 2000: 114). Debates about it seem dated because they concern technical logical issues holding little interest for contemporary thinkers. However, in its general form, psychologism remains common in academic disciplines. For example, some contemporary analytic philosophy of mind explains consciousness by reducing it to brain events. Although this approach differs from psychologism, it suffers from many of its conceptual defects. Thus, current thinkers can benefit from recalling Husserl's treatment of psychologism.[10]

Husserl maintains that psychologism confuses facts and logical truths.[11] A logical truth differs fundamentally from a fact, which is "individually and therefore temporally determinate" (Husserl 2001: "Prolegomena to pure logic," section 36, 80). For example, the fact, "human beings have well-developed brains" originated only after we evolved. A logical truth (the principle of non-contradiction, for example), on the other hand, is atemporal, and talk of "temporal determination" makes "no sense in regard to the truth itself" (Husserl 2001: "Prolegomena to pure logic," section 36, 80). We cannot provide a date or time for the origin of logical truths. We apprehend them at particular times, but *what* we apprehended does not originate temporally. When eating a red apple, I recognize its redness, which then disappears when the apple enters my mouth. However, it would be absurd to declare that Redness comes into being and passes away (Husserl 2001: "Prolegomena to pure logic," section 36, 86). Psychological changes affect the individual psyche, not logical truths.

Psychologism also mistakenly holds that the human mind makes, rather than discovers logical truths. Logical laws are not restricted to

"human or other kinds of judging persons," but obtain without reference to kinds of minds (Husserl 2001: "Prolegomena to pure logic," section 36, 94). Those who believe we create logical truths end up endorsing some form of relativism. Individual relativism, of course, assumes that "for each man that is true which seems to *him* true, one thing to one man and the opposite to another, if that is how he sees it" (Husserl 2001: "Prolegomena to pure logic," section 77, 34). Husserl employs well-known objections to this kind of relativism. Species-specific relativism holds that truth is relative to the human species (a position Husserl calls *anthropologism*). It yields the absurd conclusion that a proposition can be simultaneously true and false (Husserl 2001: "Prolegomena to pure logic," section 36, 79). A human and a Martian, for example, could differ on whether "$2 + 2 = 4$." Naturally, the human would affirm this proposition's truth because of her brain physiology. Possessing a different biological constitution, the Martian might declare it to be false. What then, should we say about the proposition's truth value? We would be forced to conclude that it is simultaneously true and false, a preposterous idea. In this analysis, Husserl thus emphatically rejects the notion that we make or constitute the laws of logic.

5.   Is nominalism the answer?

A critic might respond to Husserl's critique of psychologism by arguing that our knowledge consists of "only complexes of mental experiences that are similar to one another" (Ingarden 1989: 17). If sophisticated, she might explain this similarity psychologically or philosophically. In Husserl's day, such a critic would embrace Hume's philosophy or associationalist psychology, in our day she might adopt a physicalist conception of the mind. For such thinkers, the mind constitutes the unity, which is absent in mind-independent reality. We think objects possess unity because of our inexact ways of speaking. Take Frege's example of the Pythagorean Theorem. When a nineteenth-century German student learned it, and I learned in the 1970s, we were not learning the same thing. For social purposes, we assert historical continuity between these experiences, but ontologically, we have only similar mental events at different times and places.

   Husserl responds to such arguments when attacking modern nominalism.[12] Phenomenologically, nominalists fail to differentiate between grasping a universal and grasping a particular. A universal is an ideal unity or Species, and the "act in which we mean the Species, is in fact essentially different from the act in which we mean the individual" (Husserl

2001: II, 1, 239). Nominalists repeatedly confuse these acts, trying to reduce apprehending universals to grasping individuals. We must access both universals and individuals through sense perception, but sense perception sustains "different acts in the two cases" (Husserl 2001: II, 1, 239). We cannot apprehend universals simply by adding up experiences of individuals. Instead, we have to engage in an act of abstraction. Moderns like Locke and Hume repeatedly misunderstand abstraction, creating deep epistemological difficulties.[13] Husserl is convinced, however, that careful phenomenological analysis reveals that meaning an individual and meaning a universal differ fundamentally.

In addition to ignoring this phenomenological distinction, nominalists create confusion by thinking that mental objects represent extra-mental realities. Husserl quotes from Hans Cornelius, a psychologist who maintains that

the distinction of differing features . . . is based . . . on the fact that the contents are gathered into groups according to similarities, and are named with common names. There is therefore nothing else that *we mean* when we talk of the varying features of a content, than the fact that this content belongs to various groups of contents, all mentally similar and therefore called by the same name. (Husserl 2001: II, Appendix, 303)

Cornelius captures the main features of the Humean mental representation. It holds that similarity mediates "the relation between a general name and the class it applies to" (Husserl 2001: V, Appendix, 305). Representations serve as convenient classificatory devices that simplify cognition. In Husserl's time, thinkers were already linking this account of universals to evolutionary theory, arguing that they are devices for economizing thought (Husserl 2001: II, 24). Today, of course, we see this same move among evolutionary psychologists.

Husserl rejects such nominalist arguments because they offer no reason to link particular representations and objects. He makes this point when discussing image-theory, which holds that when apprehending a universal, an image. It "does duty" for an extra-mental object by representing it (Husserl 2001: V, Appendix to sections 11 and 20, 125). Husserl notes that a representation is "no 'real predicate,' no intrinsic character of the object which functions as image" (Husserl 2001: V, Appendix to sections 11 and 20, 125). We can arbitrarily posit resemblance between things and images, but resemblance "between two objects, however precise, does not make the one be an image of the other" (Husserl 2001: V, Appendix to sections 11 and 20, 125).[14] What reason do we have for taking one object to image another?

Husserl develops this criticism of nominalism further by noting difficulties in identifying similarities in objects. The Humean nominalist wants us to believe that meaning arises by surveying particularly. However, Husserl correctly notes that we cannot discern unity without already possessing a criterion of similarity. The nominalist offers only a series of different particulars, each with distinct temporal properties alone, they cannot explain why we group items together. For example, we might sort my red hair, a red car, and a red rose together because they have a similar color, red. We do so, however, only because we already possess a conception of redness. Remove it, and we cannot justify linking these objects. For the nominalist, unity magically emerges from experiences of hair, cars, and roses. Instead of explaining it, she offers a genetic account of how general concepts originate, which cannot explain unity. We can always ask why we *should* use a universal to classify objects. For Husserl, the failure to explain universals represents one of the main inadequacies of the Way of Ideas.

6.   Intentionality and mental contents

Husserl enhances his attack on representationalism with his famous discussion of intentionality in the *Logical Investigations*. There, he takes up Franz Brentano's thesis that intentionality or object-directedness defines the mental. He agrees with Brentano that "in perception, something is perceived, in imagination, something imagined, in a statement something stated, in love, something loved, in hated, hated, in desire, desired, etc." (Husserl 2001: V, section 10, 95). In each of these cases, we intend the same object through different acts. Husserl takes this to be Brentano's great insights, and it became the focus of his attention for many years.

Worrying about psychologism, Husserl rejects Brentano's claim that intentionality includes the "intentional inexistence" of the intended object. Talk of "immanent objectivity" or "mental inexistence" confuses a psychological event with the object intended. Furthermore, it undermines the act's unity by accentuating the difference between the activity and its object. Finally, the concept of mental inexistence ignores how intentional relations are indifferent to the extra-mental existence of objects. For example, Husserl considers the idea of the god Jupiter. Talk of mental inexistence suggests that when I think about Jupiter, some real object constitutes my intention. However, "this intentional experience may be dismembered as one chooses in descriptive analysis, but the god Jupiter naturally will not be found in it" (Husserl 2001: V, section 11, 95). Jupiter does not exist at all, but if I think about him, some intentional relation

still obtains.[15] In sum, Husserl advises against talking about objects residing in consciousness because "all modern psychology and epistemology have been confused by these and similar equivocations" (Husserl 2001: V, section 11, 100). Because of psychologism's popularity, we should always guard against confusing psychological states and intentional objects.

7. Intentionality and the structure of an act

With this anti-psychologism caveat clear, Husserl again rejects representationalism by analyzing mental acts, contents, and objects. To illustrate this distinction, take Husserl's example of perceiving a house. I perceive it at a particular time and place, and my brain undergoes modifications during this perception. However, this act differs from the object I intend, which is the house, and the act's content, which depends on how I perceive the house. I may perceive the front of the house, and the content would then be "the front of a house." When presenting such distinctions, Husserl insists that intentionality relates to objects, rather than simply connecting mental events. It is a "serious error to draw a real (reel) distinction between the 'merely' immanent' or 'intentional' objects on the one hand, and the 'transcendent', 'actual' objects which may correspond to them on the other" (Husserl 2001: V, Appendix to 11 and 20, 126). In fact, we must recognize that the "*intentional object of a presentation is the same as its actual object, and on occasion as its external object, and that it is absurd to distinguish them*" (Husserl 2001: V, Appendix to 11 and 20, 127, italics in original). Mental acts intend not other mental acts or states, but real and ideal objects.

   The act's content explains how we can repeatedly intend the same object. It is "that *in* the act that *accounts for* the act's being directed toward, or being of or about its object" (Smith and McIntyre 1982: 109). In his early works, Husserl contrasts an act's content and quality. Quality classifies the nature of the act (perceiving, judging, and asserting), while content "stamps it as presenting *this*, as judging *that* etc." (Husserl 2001: V, section 20, 19, italics in the original). For example, we can have two judgments, "Husserl is a good philosopher" and "the doctrine of signs is important". They have the same quality, but differ in content. Or, we can have qualitatively different acts that intend identical contents, such as when I believe or assert that, "the doctrine of signs is important". Acts may differ phenomenologically, but such differences are "quite irrelevant to the essential content, the interpretative sense" of the acts. (Husserl 2001: V, section 21, 124). You may remember a house vividly, while I only vaguely recall it. In both cases, the meaning "stays unchanged,

identically determined" because of identical content (Husserl 2001: V, section 21, 124).

In contrast to representationalism, the act's content guarantees a close connection between mind-dependent and mind-independent realities. It gives directional quality to intentionality, and if an extra-mental object exists, determines its nature. A pointing character is "an *intrinsic* feature of the content, due to its very own nature alone" (Smith and McIntyre 1982: 106). Husserl often illustrates this pointing character by discussing how contents suggest an object's unexplored features. When I intend the house with the content, "the front of the house," I am aware that it also has a back part. The content points to the entire house, even I have a limited perception. I know my perception is partial, and does not exhaust the object intended. Such unexplored features of an object show that rather than being self-made, content connects to an object. It "does not intervene between the act and its object, and does not close the mind off from the very objects or world that it was supposed to make accessible" (Willard 2002: 74). Its intentional character precludes it from become the terminus of cognition.[16]

An act's content also cannot be a subjective representation because of its atemporal and aspatial character. Notoriously, Husserl "brackets" questions about an object's real existence, maintaining that intentionality is indifferent to real existence.[17] However, he also insists that mental contents are not subject to time and space. Commenting on the idea of pure logic, for example, Husserl maintains that scientific methods are temporal and changing, but the "objective content" of a science is "quite independent of the scientist's subjectivity, of the peculiarities of human nature in general. It is objective truth" (Husserl 2001: "Prolegomena to pure logic, 105).[18] When discussing nominalism, he defines real being by stating that "temporality is a sufficient mark of reality. Real being and temporal being may not be identical notions, but they coincide in extension" (Husserl 2001: II, section 8, 249).[19] Objects like redness, numbers, and act-contents "exist genuinely," but differ from real objects temporally (Husserl 2001: II, section 8, 249). They cannot be merely private thoughts, but always have a public character accessible to other thinking beings. From this discussion, then, we clearly see that for Husserl, the mind does not make or constitute what it knows. If it did, mental contents would originate in time, an idea Husserl repeatedly rejects.

Husserl retained the distinction between acts, objects, and content throughout his career, but developed it using new vocabulary. His followers disagree about which terms we should use to describe it.[20] Nevertheless, the key distinction between mental acts, content and objects remains a telling criticism of representationalism. Despite Deely's asser-

tion, Husserl's account of cognition, therefore, "is not a species of 'representationalism' in that sense, akin to theories holding that we are properly or directly aware only of our own 'ideas', which in turn stand for or represent external objects" (Smith and McIntyre 1982: 144). From his earliest works, he was a consistent and careful critic of modern representationalism.

Let me summarize what I have said about Husserl and idealism. His attacks on psychologism and nominalism, and his analysis of acts all reveal why he cannot be an idealist (in Deely's sense of the term). In his careful attack on psychologism, he insists that humanity is not the creator of all truth. He repudiates nominalism and all forms of mental representationalism. And finally, he painstakingly distinguishes between mental acts and contents, insisting that contents are atemporal entities. With all three topics, Husserl rejects the modern Way of Ideas and its "thoroughly debauched epistemology" (Husserl 2001: "Prolegomena to pure logic," section 22, 273).

8.   An idealist conversion? The later Husserl

A critic of my argument might concede that the early Husserl was a realist, but maintain that he devolved into idealism later in life. This appears to be Deely's position. He says little about Husserl's early work, but offers a cursory account of Husserl's intellectual development. To again quote what he says on this matter, Deely alleges that Husserl "thought he was doing something radically new with his phenomenology. But one day he realized what was up and renamed his planned lecture series, which became on of his most important books, the *Cartesian meditations*" (Deely 2001: 581). On this account, Husserl began as a promising critics of modernity, but went nowhere because he embraced Cartesian idealism.

Deely fails to substantiate this controversial reading of Husserl's work, citing only the writings of Herbert Spiegelberg and Thomas Langan. Undoubtedly, around 1908, Husserl changed his approach to phenomenology dramatically. Moreover, in the *Cartesian meditations*, he creates many epistemological difficulties, long recognized by Husserl scholars.[21] However, we cannot simply assert that the later Husserl embraced idealism. Even Roman Ingarden, one of Husserl's fiercest realist critics, recognizes the complexities of Husserl's idealism. Carefully discussing different understandings of the term "idealism," he argues that Husserl is no Berkleyian idealist (Ingarden 1964). In light of these complex debates about Husserl's idealism, Deely must do more to demonstrate that Husserl became an idealist in the *Cartesian Meditations*.

More importantly, even if Husserl endorsed idealism later in life, his early writings remain valuable. In them, Husserl is "an outstanding thinker working upon a set of fundamental and quite nonpartisan problems about the nature of cognitive experience" (Willard 1982: xii). We can appreciate this work regardless of later developments in his thought. Edith Stein, Adolf Reinach, Roman Ingarden, and others rejected what they took to be Husserl's later idealism, but embraced his early work. Contemporary scholars like John F. Crosby follow them, retrieving important insights about the person from the early Husserl (Crosby 2004). Early phenomenology offers remarkable philosophical resources for engaging modern logic, ethics, the philosophy of law and other topics. We should not neglect them by focusing unproductively on Husserl's intellectual development.

9.   Lost opportunities

By labeling Husserl an idealist, Deely disregards some of modernity's valuable developments. When discussing modern philosophy, he frequently adopts a negative tone, urging readers to abandon it in favor of postmodernity. This attitude contrasts sharply with the more positive approach we see in some other critics of modernity who value its turn toward the subject. For example, Kenneth Schmitz notes that "it is important for those who value the great tradition, and who are acutely aware of the deficiencies of modern thought, to appreciate the great advance in self-understanding that has been brought about — as a byproduct, so to speak, through an admittedly exaggerated emphasis upon self-identity and self-reference" (Schmitz 2007: 111). Phenomenology helps us understand "the proper status and role of consciousness within the human person" (Schmitz 1993: 138). Likewise, John Paul II distinguishes between cosmological and personalist approaches to the person (Wojtyla 1993: 209–217). A cosmological approach considers the person from without, defining her nature and interaction with the environment. A personalist approach focuses on the person's interior facets. For John Paul II, phenomenology reveals aspects of the person that medieval thinkers underemphasize or ignore. He uses them in remarkable ways to reflect on suffering, history, and ethics. Finally, W. Norris Clarke, S.J. appreciates modernity's accent on interiority. Emphasizing modern movements that value dialogue between persons, he proposes a "creative integration" of Thomistic thought and phenomenology (Clarke 1993). All three of these thinkers recognize modernity's dangers, but retrieve its valuable elements.

In contrast, Deely scornfully dismisses modern thought, finding little value in its turn toward the person.

This negative stance toward modern thinkers discourages fruitful philosophical engagement with them. For example, by charging Husserl with idealism, Deely disregards his remarkable reflections on modern logic and epistemology. Rather than adopting this stand, why not recognize that phenomenology "begins philosophy in a manner different from the way Thomism begins it, but in a way that complements and does not contradict the Thomistic approach" (Sokolowski 2000: 207). Critically retrieved, phenomenology validates our natural attitude toward the world, helping Thomism develops its metaphysic. Thomists differ from Husserl over issues like the ontological status of meanings, the phenomenological reduction, and a metaphysic of *esse*. Rather than dismissing Husserl with labels, Deely should engage him on specific philosophical differences. For too long the idealist label has served as a conversation stopper prematurely ending philosophical engagement.

Finally, by labeling Husserl an idealist, Deely ignores him as a potential interlocutor about sign-theory. Husserl shows a deep interest in sign-theory, particularly when writing about mathematics. For example, he discusses signs in the *Philosophy of Arithmetic*, exploring how mathematics relates to intuition (also see Willard 1984: Ch. 3). He puzzled over how complex mathematic formulae could serve as signs. He also devotes considerable attention to signs in the *Logical investigations*, considering words and signs.[22] In fact, he devotes long sections in the *Logical investigations* to discussing signs and expressions (Husserl 2001: VI, 183–225). Deely notes none of this intriguing work, losing a valuable opportunity to engage Husserl on the doctrine of signs. Because he concludes that Husserl is an idealist, Deely apparently thinks Husserl has nothing worthwhile to say about signs.

10. Conclusion

With care and precision, Deely demonstrates deep difficulty in modern thought. By translating and explaining Poinsot's remarkable work, he opens areas of inquiry vitally important for contemporary philosophers. However, he makes the unfounded charge that Husserl is an idealist, and is apparently unaware of Husserl's careful attacks on psychologism, nominalism, and representationalism. Consequently, he overlooks some of modernity's valuable elements. Despite their failure to understand signs and a deeply flawed epistemology, modern thinkers highlight important aspects of consciousness. Phenomenology, in particular, offers deep

insights into our interior lives. By casually dismissing Husserl as an ideal-
ist, Deely does a disservice to a great thinker who shares some of
his concerns about modernity. More importantly, he jettisons important
advances in our understanding of the person. His impressive narrative
reads as if the modern world is entirely corrupt, without light or insight.
I hope, however, that a more careful look at Husserl and phenomenology
might persuade Deely to see some merit in modernity's struggles and
achievements.

Notes

1. For good Thomistic responses to Deely, see Ashley (2005) and Clarke (2005).
2. For a classical account of Husserl's influence on his students, see Spiegelberg (1965). Dallas Willard (2002) offers a more recent assessment.
3. For a careful discussion of animals and signs, see Deely (2000).
4. Deely (2001: 527–539) provides an excellent analysis of modernity's confusions about primary and secondary qualities.
5. In a sophisticated reading of Locke, Deely (2001: Ch. 14) notes Locke's suggestive, but incomplete comments on signs.
6. For two Thomists who adopt this approach to Husserl, see Maritain (1959: 101–111), and Pegis (1984: 109–134).
7. Bernard Bolzano also attacked psychologism and idealism: see Sebestik (2003), and George (2003).
8. When referring to the *Logical investigations*, I cite both section and page numbers.
9. The conventional wisdom about Frege and Husserl is that Frege woke Husserl from his psychologistic slumber when he reviewed his book, *The philosophy of mathematics*. However, this is a far too simplistic an account of the relationship between these two thinkers. For two good discussions of Frege and Husserl, see Mohanty (1982) and Willard (1984).
10. Good discussions of psychologism and the social sciences are in Notturno (1989).
11. Husserl develops many interesting criticisms of psychologism that I will not consider in this essay. For example, he rejects empiricist understanding of logic, considers if logic is a normative discipline, and discusses particular psychologistic analyses of the syllogism.
12. Husserl uses the term "nominalism" as a conceptual rather than an historical term. It describes those who deny that universals exist outside of the mind's activity. He attributes nominalism to Locke, Hume, and Mill. Contemporary scholars in medieval philosophy would, of course, insist on greater precision in using the term "nominalism."
13. Husserl also provides an excellent analysis of how nominalism fails to understand abstraction, see Husserl (2001: II, 1–5, 239–288).
14. Such arguments against nominalist are quite familiar to Thomists who have written about William of Ockham.
15. On the question of mental inexistence, Thomistic analyses of intentionality differ dramatically from Husserl's account. For some discussions of Thomistic intentionality, see Hayen (1939: 385–410), De Finance (1960), Perler (2001), and Deely (2007).

16. Sokolowski brilliantly explores this area of Husserl's thought, focusing on the idea of an *empty intention*. An empty intention "targets something that is not there, something absent, something not present to the one who intends" (Sokolowski 2000: 33).
17. For a good discussion of the phenomenological and other reductions in Husserl, see Sokolowski (2000: Ch. 4).
18. Aron Gurwitsch (1974) develops a wonderful criticism of Hume on temporality. I have learned a great deal from this article. I thank Gilbert T. Null for interesting conversations about Hume.
19. For a different understanding of the mark of real being, see Clarke (1993), and De Finance (1960). Both of these thinkers maintain that activity is the criterion for real being. Because God is atemporal, obviously, they cannot identify the real with the temporal because this would make God an ideal entity.
20. For a good overview of the development of Husserl's thought, see Mohanty (1995: 45–77). For discussions of the idealism/realism issue in Husserl, see Harrison Hall (1982: 169–190), and Zahavi (2002: 93–111).
21. These difficulties concern intersubjectivity, which some scholars think Husserl fails to explain. Alfred Schutz (1970) makes this argument well. I am persuaded by Schutz's argument, and unlike Deely, do not think *Cartesian meditations* is one of Husserl's most important works.
22. Sokolowski (2002: 171–183) discusses this theme well.

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Deely, Aquinas, and Poinsot:
How the intentionality of inner sense
transcends the limits of empiricism*

ANTHONY J. LISSKA

Abstract

In Four ages of understanding, *John Deely considers (among many things) issues in the philosophy of mind rooted in the Aristotelian tradition. One specific item concerns perceiving the individual as an individual that is not reducible to an empiricist ''bundle of sensations.'' Deely, in discussing Poinsot on inner sense and perception through an* intentio insensata, *suggests that most modern and contemporary philosophers neglected Poinsot's insights, a partial exception being Thomas Reid. The present essay offers an explicatio textus of Aquinas's texts shedding light on the role the* vis cogitativa *with its* intentio insensata *plays in transcending classical empiricism. Deely's analysis brings to the forefront this philosophical discussion. Nonetheless, Deely's analysis omits discussing how late twentieth century analytic philosophy of mind has ventured nearer this set of epistemological concerns than his book appears to indicate. This essay covers that omission.*

Keywords: Phantasm; vis cogitativa; individual; primary substance; Thomas Aquinas; Thomas Reid.

In his monumental *Four ages of understanding*, John Deely offers his readers a wide swath of the history of western philosophy situated under the mantel of semiotics and the theory of meaning. Deely considers more than several issues common to metaphysics and the philosophy of mind that are rooted in the Aristotelian tradition. One of these issues in the philosophy of mind deals with the perception of the individual as an individual and not merely as a ''bundle of sensations,'' a position common to much British empiricism. Deely considers the role that the renaissance scholastic philosopher, John Poinsot — sometimes more widely known as John of St. Thomas — articulated in his view of the internal senses. This discussion deals with the perception of the individual by means of

what scholastic philosophers call an *intentio insensata*, which suggests that the role of perception differs radically from an analysis of sensation. Deely suggests, correctly it would seem, that most modern and contemporary philosophers have neglected the insights of Poinsot. The exception would be the common sense position articulated by the Scottish philosopher, Thomas Reid. Reid, however, does not provide the philosophy of mind machinery necessary to justify his distinction between sensation and perception (Deely 2001: 552).

The thrust of this essay, following from the insights of Deely, is to offer an *explicatio textus* of the writings of Thomas Aquinas that will shed light on this epistemological conundrum. To be more specific, this essay is a discussion of the role of inner sense, with special reference to the *vis cogitativa*, in the theory of sensation and perception put forward in the writings of Thomas Aquinas. While much has been written on the role of intellect as discussed by Aquinas — both the *intellectus agens* and the *intellectus possibilis* — nonetheless much less has been written about his account of sensation and perception. Regarding sense knowledge, moreover, even less has been written about the role of inner sense in Aquinas's overall treatment of issues in the philosophy of mind. One significant benefit of Deely's analysis is that it brings to the forefront of philosophical discussion this set of issues. Nonetheless, one omission in Deely's generally thoughtful analysis is his neglect in considering how late twentieth century analytic philosophy of mind has ventured nearer to his set of epistemological worries than his book appears to indicate.

The foil for this essay is the set of texts rooted in classical British empiricism, with special reference to Berkeley and Hume, in which what has become known as the ''bundle view of perception'' was articulated with philosophical vehemence. Deely notes with approval that Thomas Reid offered a critique of this position defended by Berkeley and Hume; however, Reid fails, both in the judgement of this reviewer and in Deely's analysis, to offer an analysis of how his position transcends what Berkeley and Hume proposed other than by wishful thinking. Aquinas's account of the *vis cogitativa*, on the other hand, provides a structural account of how the perception of the individual as opposed to merely an awareness of a bundle of sensations is possible. This essay, therefore, is an elucidation — an *explicatio textus* — of the necessary conditions for perception in Aquinas's philosophy of mind, all the while not forgetting the importance of Poinsot's contributions to this discussion.

Writing recently on contemporary naturalist epistemology, John Haldane suggested that serious discussion was needed in this area of cognitive inner sense faculties in Aquinas. Haldane writes: "What is now needed, however, is a fully perspicuous philosophical account … of the nature

and operations of what in the Aristotelian-Thomistic tradition are spoken of as the 'cogitative powers' and the 'active intellect.' That might be one of our tasks for the next century'' (Haldane 1999: 43).

Dorothea Frede, on the other hand, argued recently (2001: 170) that Aquinas on inner sense is generally "an embarrassment." Frede and Haldane offer two contrasting positions, to be sure. Frede charges Aquinas with producing a philosophical embarrassment while Haldane challenges philosophers to work seriously on the "cogitative powers." One of the purposes of this essay is to sort out these differences and adjudicate contrasting interpretations: is the *vis cogitativa* "an embarrassment" or is it rather a segment of inner sense theory requiring serious and sustained study in the history of philosophy, which should be "one of our tasks for the next century"? The argument spelled out in this essay sides with Haldane's proposal.

There is, moreover, a general realist thrust to Deely's mode of doing philosophy. In this regard, Deely forces the reader to not forget that Aristotle's and Aquinas's method in undertaking philosophical analysis is realist to the core. In this regard, Deely holds a position in direct opposition to a postmodernist position offered by Catherine Pickstock, among others. This challenge of postmodernism is neither an arcane nor idle philosophical question. Writing in the English Dominican monthly, *New Blackfriars*, Pickstock asks the following question, and not rhetorically: [1] "How should one respond to the death of realism, the death of the idea that thoughts in our minds can represent to us the way things actually are in the world? For such a death seems to be widely proclaimed by contemporary philosophers" (Pickstock 2000: 308).

Pickstock's analysis of Aquinas on truth is a vigorous attempt to place Thomas in the Post-Modernist camp. This essay raises serious questions about Pickstock's anti-realist interpretation of Aquinas.

1. No epistemology without an ontology

In discussing Aquinas's account of the philosophy of mind, one must begin with a methodological principle articulated by Haldane and substantiated by Deely. Haldane suggests that philosophers undertaking work in Aristotle and Aquinas on mind understand that a necessary condition for working through a structural analysis of mind in these two classical realists requires acknowledging the role philosophical realism plays in their theories. This principle undercuts the epistemological foundationalism common to much modern philosophy since the time of Descartes. Certainly Descartes raised the foundationalist questions with vigor. Haldane

reminds philosophers confronting epistemological issues in Aristotle and Aquinas that their respective ontological theories play a principal role in their theories of knowledge. Simply put, both Aristotle and Aquinas build their ontological theories first, and then their respective philosophies of mind follow upon their ontologies. It is not the other way around, as one finds in many modern epistemological foundationalists. Hence, for both Aristotle and Aquinas, an ontology of primary substances is a necessary condition for the development of a coherent philosophy of mind. The awareness of a primary substance in Aquinas's philosophy of mind, furthermore, grounds his distinction between sensation and perception. This is a distinction Reid proposes but one which both Deely and this author argue Reid seems unable to ground philosophically.

This ontological principle for epistemology is found earlier in analytic philosophy in the writings of Gustav Bergmann. In his "Inclusion, exemplification, and inherence in G. E. Moore," Bergmann (1962: 86) argued that "Epistemology or theory of knowledge is nothing but the ontological assay of the awareness situation." Deely would appear to concur. In discussing Aquinas and Maritain on the philosophy of mind, Deely writes: "'Metaphysics' . . . is understood . . . as a philosophy of being that is at once, and par excellence, a philosophy of mind. And within this 'philosophy of mind,' epistemology does not exist as a discipline distinct from, but as a part within, metaphysics" (Deely 2001: 742).

Bergmann gives evidence of further connections with the general tenor of Aristotelian and Aquinian philosophy. Herbert Hochberg, writing in *The Modern Schoolman*, unearthed the themes of Aristotelian hylomorphism found in Bergmann's later writings. This connection with a principal twentieth century analytic philosopher compliments Deely's Thomist analysis. Hochberg notes that throughout his career, Bergmann focused his attention on three metaphysical issues: the problem of individuation, of universals, and of intentionality. These are metaphysical *aporia* common to the philosophical work of Aquinas and Poinsot. Hochberg writes that what Bergmann called "ultimate sorts" function as "*categorical natures* that are components of what they *inform*." Hochberg writes the following:

Here Bergmann saw a connection to ". . . Aristotle's composition of a substance out of form and matter, or, rather in the manner of Aquinas, out of an essence and a bit of *materia signata* . . . ." Irrespective of the accuracy of his reading of Aquinas, regarding essences and *materia signata*, his claim is clear, as is the influence of Aristotle and Aquinas. (Hochberg 2001: 264)[2]

Bergmann was delving into serious metaphysical work, which was at least analogous to the metaphysics of Aquinas and Poinsot. Hochberg

further notes, moreover, that Bergmann's "turn to metaphysics was unique among the positivists that emigrated to the United States and England" (Hochberg 2001: 257). The themes Bergmann addressed are similar structurally to several ontological positions put forward by Aristotle and Aquinas and endorsed recently by Haldane's work in what he calls "Analytical Thomism." Hence, there is an interesting confluence of late twentieth century analytic metaphysics and philosophy of mind with the traditional realism articulated and defended by Aquinas and Poinsot. Deely appears not well connected to this aspect of twentieth century analytic philosophy.

2. Philosophical worries about sensation and perception in early analytic philosophy

Issues in perception theory dominated Anglo-American philosophy during much of the twentieth century. Early analytic treatises by Bertrand Russell and G. E. Moore, for instance, attended relentlessly to the worries about idealism and its connection with theories of sensation and perception. These early discussions, however, fostered worries about what counted for an adequate analysis of the awareness of an individual. At mid-century, Gilbert Ryle, for instance, expressed these worries in a forthright manner:

One of the things that worry me most is the notion of sensations or sense-impressions. It seems, on the one hand, very hard to avoid saying that hearing, seeing, and tasting could not happen unless appropriate sense-impressions were received; and yet also very hard to give a coherent account of what such sense-impressions are, or how the having of sense-impressions is connected with, say, our hearing a conversation or our seeing a tree. (Ryle 1956: 427)

In his essay, Ryle raised three issues that are important in considering Aquinas's theory of intentionality for sensation and perception:

1. What is the causal relation between objects in the world and our intentional awareness of these objects?
2. Does efficient causality offer a sufficient condition for explaining perception?
3. How do we get beyond sensations alone and become aware of "things"?

Deely's *Four ages of understanding*, it would seem, fits in structurally with this set of philosophical concerns.

Recent work in the philosophy of mind addresses these issues in some detail. The focus of this essay is on the perception of "individual things" contained in the theory of mind articulated by Aquinas and seconded by Poinsot, with special attention to intentionality theory and inner sense in the context of recent analytic philosophy of mind. This analysis suggests important structural connections between work in analytic philosophy of mind and the thrust of Deely's arguments.

The text from Ryle indicates the importance of the set of issues then prevalent in mid century analytic philosophy, especially as practiced in Great Britain, centered on the nature of sensation and perception. What determined this philosophical direction in analytic philosophy was the early epistemological worries of Moore and Russell, among others, caused by the then almost over-whelming acceptance — many would argue almost uncritically — of absolute idealism in several of its different formulations. In his famous essays, "The refutation of idealism" (1965 [1903]) and "a defence of common sense" (1925), Moore articulated what he took to be the nature of sensation in order to prove that idealism, with its general maxim gained from Berkeley's *Esse est percipe*, was flawed conceptually. The early work of Moore and Russell determined the development of analytic philosophy for a good part of the first half of the twentieth century. This role for common sense in early analytic philosophy, however, was more pronounced than Deely appears to grant.

Of course, these early essays spawned those quite irritable sense datum theories that one finds accepted by analytic philosophers, Moore and Russell included, during most of the first half of the twentieth century. It was Ryle himself, along with Wittgenstein and the brash young John Austin at Oxford, who eventually undercut sense datum theories by indicating, especially in the lectures of Austin, that sense data language violated the norms of ordinary language. What is interesting historically is that ordinary language philosophy brought about the upheaval in analytic philosophy that both hastened the death knell of Cartesian foundationalism and reintroduced the possibility of Aristotelian realism.[3]

What is surprising about all of this, when considered from the historical distance of more than a half-century, is that, while the twin characteristics of philosophical realism and an adherence to the role of common sense permeated the discussions of the early analytic philosophers — as well as the later work of Wittgenstein, Ryle and Austin — nonetheless the great realist philosophers of the Aristotelian tradition were, for all practical purposes, overlooked, neglected, and ignored. The analysis put forward in this essay, which is one with which one suspects Deely would concur, suggests that this oversight is a conceptual pity. Deely writes about what he considers one of "history's great ironies": "That modern

empiricism, introduced to vindicate the views of the 'plain man of common sense' against the dream of Descartes, ended up, of all the philosophies in history, the one most removed from and contemptuous of 'common sense'" (Deely 2001: 552).

   The Aristotelian philosophy of mind tradition, especially as found in the writings of Thomas Aquinas, offers insights regarding the nature of sensation and perception that might have moved these twentieth century perception discussions forward in important ways. Hence, the analysis of philosophical concepts found in the writings of Aquinas and Poinsot, especially as spelled out in Aquinas's detailed *Commentary on Aristotle's De Anima*, are philosophical themes with much more than historical interest. These discussions encompass analyses of intentionality theory, adopting a role of common sense, rendering a distinction between sensation and perception, elucidating a naturalistic philosophy of mind, treating what Donald Davidson once called the "anomality of the mental," rejecting what Hilary Putnam refers to as "the inner theatre of the mind," and finally transcending the limits of British Empiricism. These issues are in structure similar to Deely's analysis put forward through the lenses of Poinsot's theory of signs.

3.   Source material for Aquinas: The *Sententia Libri "De Anima"*

A perspicuous analysis of perception theory in Aquinas depends on working through sections of his *Commentary on Aristotle's De Anima*, whose Latin title is the *Sententia Libri "De Anima."* Not only is this treatise a lucid *explicatio textus* of the many issues central to Aristotelian philosophy of mind, but it is here that Aquinas develops most fully his account of sensation and perception. Recently, philosophers have paid more attention to the *Commentary*. The Leonine edition of Aquinas' *Sententia Libri "De Anima,"* edited by the French Dominican, Rene-Antoine Gauthier, appeared in 1984. In 1999, Robert Pasnau rendered a new translation of the *Commentary*, which was the first fresh translation of this work since the classic Foster and Humphries (1951) edition appeared a half century ago.

   In order to witness Aquinas's wrestling at his best with issues in sensation, perception and concept formation, philosophers interested in the history of the philosophy of mind need to read carefully Aquinas's exposition on Aristotle's *De Anima*. When discussing Aquinas's philosophy of perception, however, historians of philosophy normally refer to the short analysis in the *Prima Pars* of the *Summa Theologiae*, plus occasional references to the somewhat whimsical discussions in the *Summa Contra*

Gentiles. While the account of intellectual knowledge found in the *Prima Pars* of the *Summa Theologiae* is moderately developed, nonetheless Aquinas treats the important issues of sense knowledge in only two articles of Question Seventy-Eight: Article Three for the external senses, and Article Four for the internal senses. If order to see where Aquinas considers philosophy of mind issues in more detail, one must read seriously his *Sententia libri "De Anima."* This account of a realist theory of sensation and perception depends on Aquinas's analysis of the ontology of the human person as a holistic entity and not as a separated Cartesian mind. This, in turn, is the justification of Aquinas's famous non-Cartesian claim (1993 [1265]: 192–193) that "*Anima mea non est ego!*" In this *Commentary*, furthermore, Aquinas demonstrates his work primarily as a philosopher. Hence, one need not drown in the sometimes tiresome worries about the role of theology in the writings of Aquinas. In his Aristotelian *Commentary*, Aquinas writes like the first rate philosopher he is, and one should take his philosophical commentary for what it is — a piece of serious philosophical analysis.

   The *Prima Pars* of the *Summa Theologiae* and the *Commentary on the Soul* appear to have been written about the same time.[4] The dating of the *Commentary* is a fascinating puzzle-like project in itself. This author claims no expertise on these arcane, albeit important matters. Nonetheless, Aquinas undertook concurrently with the writing of his Aristotelian commentary, so it appears, the composition of the *Prima Pars* of the *Summa Theologiae*, where his account of his philosophy of mind appears in Questions 78–79 and 84–89. Hence, Aquinas was figuring out his own take on issues in the philosophy of mind while wrestling with Aristotle's *De Anima*. Gauthier and Simon Tugwell both suggest that this was the first of Aquinas's Aristotelian commentaries.[5] In his excellent study of Aquinas, Tugwell notes the following concerning Aristotelian commentaries written by Thomas:

Also, towards the end of his time in Rome, Thomas composed what may have been his first fully developed Aristotelian commentary, on the *De Anima*, and it is not unreasonable to postulate a connection between this commentary and the fact that Thomas was writing about the soul in the first part of the *Summa*. In the same way the commentary on Aristotle's *Ethics*, at least in its final form, seems to be related to the composition of the second part of the *Summa*. (Tugwell 1988: 256)

   The *Sententia libri "De anima,"* especially the exposition and commentary beginning with Chapter/*Lectio* Ten of Book Two and in major sections of Book Three, contains the important analyses by Aquinas on is-

sues in the philosophy of mind. This corresponds to Book Two, Chapter Five and following in Aristotle. Aquinas's account of a realist theory of sensation and perception is developed more fully in this Aristotelian *Sentientia* than in any other text in the written corpus of Aquinas.

4.   Aquinas on inner sense

In this essay, concept-formation and the process of abstraction through the *intellectus agens* come into play only in a peripheral way. This analysis addresses Aquinas's fascinating but much neglected account of inner sense, especially the *vis cogitativa*. The texts of Aquinas imply two different interpretations of inner sense with the text of the *Summa Theologiae* suggesting one account of the concept of *phantasia* while Aquinas's *Commentary on Aristotle's De Anima* offers a different account.

1.   In the *Summa Theologiae*, the inner sense faculty of *phantasia* is identical with the imagination or *vis imaginativa*. Aquinas writes: "*Ad harum autem formarum retentionem aut conservationem ordinatur phantasia, sive imaginatio, quae idem sunt*." (I, Q. 78, art. 4.)
2.   In the *Commentary on the soul*, *phantasia* is used as a generic concept or "place-holder" covering the three distinct faculties of inner sense: the imagination, the *vis cogitativa* and the sense memory. One must note, however, that Aquinas considers each of these internal sense faculties in the *Summa Theologiae* account.

5.   Recent work in Aristotelian perception theory

This discussion of Aquinas is part of the general resurgence of interest in Aristotelian philosophy of mind and intentionality, with the last fifteen years witnessing much work in Aristotle. Names like Richard Sorabji, Anthony Kenny, Myles Burnyeat, Hilary Putnam, Martha Nussbaum, John Haldane, Fred Miller, Deborah Modrak, and John McDowell, among others, are on the list of those philosophers unearthing insights Aristotle offers in the general area of sensation and perception. Writing on the importance of Aquinas for contemporary philosophy of mind, Nussbaum wrote the following: "Aquinas' commentary ... produced in the thirteenth century, is one of the very greatest commentaries on the work ... (and) Aquinas's commentary itself is very insightful; so too are the extensive remarks about Aristotelian soul-body issues contained in the *Summa Theologiae*" (Nussbaum 1995: 4).

Following on the coattails of much recent work into Aristotle's philosophy of mind, some interesting scholarship has been forthcoming on inner sense in Aquinas. This is a radical departure from much twentieth century history of medieval philosophy, where Aquinas's general account of perception was for the most part relegated to the philosophical backwaters of forgotten theory. Dominik Perler's significant collection of essays, *Ancient and Medieval theories of intentionality* (2001), for instance, contains four articles devoted almost exclusively to Aquinas's philosophy of mind, with the *vis cogitativa* occupying a central place in two of the essays: Dorothea Frede's "Aquinas on *Phantasia*," and Cyrille Michon's "Intentionality and proto-thoughts." This is, to be sure, an advance over the neglected status of these intentionality discussions on the internal senses in Aquinas noted in an article published in the 1940s (Peghaire 1942–1943): "A forgotten sense, the cogitative according to St. Thomas Aquinas".

6.   The worldview of Aquinas

In order to understand Aquinas's thesis of intentionality, one needs to understand first the general structure of his ontology and the categories contained within that ontology.[6] In Aquinas's worldview, the sensible world is composed of primary substances. His ontology is an attempt to account for what is necessary in order to render an analysis of a primary substance possible. A primary substance is an individual of a natural kind, which exemplifies the following kinds of properties:

a.   Incidental properties — the accidents that happen to an individual of a natural kind; these are accidental forms or *per accidens* forms.
b.   Essential properties — the sortal properties that define the essential characteristics of an individual of a natural kind; these properties are grounded in the substantial forms, which are instances of a *forma substantialis*.

In addition, some account of first matter that underlies the substantial form is a necessary condition for an adequate ontological analysis. The first matter and the substantial form together provide what Aquinas calls secondary substance or second matter. It is to this composite that accidental forms inhere. A discussion of first matter, a terribly difficult concept in Aristotelian metaphysics, is beyond the limits of this present inquiry. In the philosophy of mind, the question arises: "How is knowledge of this primary substance possible?" Aquinas develops his theory of intentionality in order to account for the possibility of the

awareness and the understanding of a primary substance. There are, first, three sensible objects, and second, there is the philosophy of mind "machinery" necessary in order to abstract the essence or natural kind properties from the individual primary substance. The three objects of sense knowledge are the following:

1. Proper sensibles
2. Common sensibles
3. The incidental object of sense

In addition, Aquinas postulated the intentionality ability or cognitive disposition to abstract and know the essence of an individual of a natural kind.

4. An intentional awareness of the essence:
   a. *Intellectus agens* — the ability to abstract the set of essential properties.
   b. *Intellectus possibilis* — the ability to know this set of essential properties.

In his book, Deely (2001: 347–350) treats the functions of the intellect in Chapter Two, Section Seven. The texts below from both the *Summa Theologiae* and the *Commentary on the soul* indicate in some detail the three kinds of sensible objects noted above that are found in Aquinas's theory of sensation and perception: the proper sensibles, the common sensibles and the incidental objects of sense.

Senses know things from being impressed with their likeness. Now this likeness can be taken at three stages:

1. First, *immediately and directly (primo et per se)*, as when the likeness of color is in the sight. So also with the other proper sense-objects in their appropriate senses.
2. Secondly, *directly but not immediately (per se, sed non primo)*, as when the likeness of bodily shape or size is in the sight. So also with sense-objects shared through several senses — i.e., the common sensibles.
3. Thirdly, neither immediately nor directly, but indirectly *(nec primo nec per se, sed per accidens)*, as when the likeness of a human person (the incidental object of sense) is in the sight; she is there not because she is a human person, but because she is a colored object. (*Summa Theologiae*, Ia, Q. 17, a. 2)

In his *Commentary*, Aquinas spells out the same set of sensible objects:

Now the term sense-object is used in three ways, one-way incidentally (*per accidens*) and in two ways essentially or absolutely (per se). Of the latter, we use one if referring to the special objects proper to each sense, and the other in referring to

the objects that are common to more than one sense in all sentient things. (*Commentary on the Soul*, # 383)

7.   Meta-philosophical principles necessary in understanding Aquinas's philosophy of mind

In discussing intentionality theory, Aquinas opts for a meta-philosophy significantly at variance with what one finds in much modern philosophy. Deely agrees with this claim. Aquinas builds his ontology first, and then his philosophy of mind and his epistemology follow from the ontological analysis already constructed. Hence, not only is Aquinas, for instance, not a Cartesian advocating metaphysical substance dualism, but in a deeper sense, his approach to undertaking the activity of philosophy is diametrically opposed to the Cartesian method. There is a fundamental meta-philosophical difference between Aquinas and most practitioners of modern philosophy. In discussing these meta-philosophical differences, Scott MacDonald once wrote the following:

Aquinas does not build his philosophical system around a theory of knowledge. In fact, the reverse is true: he builds his epistemology on the basis provided by other parts of his system, in particular, his metaphysics and psychology. To examine what we can recognize as a distinct and systematic theory of knowledge, then, we need to extract his strictly epistemological claims from the metaphysical and psychological discussions in which they are embedded. (Macdonald 1993: 160)

This analysis put forward by MacDonald is aligned with Haldane, who formulated the maxim noted earlier in this essay: "No epistemology without ontology" (Haldane 1999: 54). Haldane argues that one needs to account for a theory of the person first, which person has the dispositional properties to have cognitions and undertake actions. The theme of a holistic account of the human person as agent and knower is central to Aquinas's theory of human nature. Haldane further suggests that Aristotle and Aquinas adopt a different architectonic of proceeding from what one finds in modern philosophy: "Our knowledge of the external world is the starting point for philosophical reflection, the task of which is not to justify this knowledge but to explain it; to give an account of the scope of cognition, its genesis and its operations" (Haldane 2000: 43).

Neither Aquinas nor Poinsot articulates a set of criteria entailing a "foundationalist epistemology." To the contrary, Aquinas does not attempt to justify individual acts of awareness but rather to explain the possibility of those acts of awareness. This lack of foundationalist worries so

divergent from the thrust of much modern and contemporary epistemology caused, until recently, the general lack of interest in Aristotelian intentionality theory. Aquinas adopts both ontological realism — the claim that the external world is structured — and epistemological realism — the claim that knowers are aware in some manner of this structure of the world. The role of substantial form and incidental form is, of course, indispensable in these discussions. Form determines the structure to reality, both substantial forms and accidental forms. It is this set of structures that provides the possibility for knowledge. This, in turn, provides for a common sense view of knowing.

8. Thomas Reid on sense knowledge

In considering the role of common sense, Aquinas is akin philosophically to Thomas Reid. Reid, William Kneale once wrote (1971: 68), rescued the word "perception" from the muddles of early modern philosophers where, Kneale suggests, the term ceased to have any clear meaning. Empiricists like Hume thought themselves entitled to use "perception" as an "omnibus word" for whatever goes on in the mind. On matters of perception, Aquinas and Poinsot, like Reid, differ radically from Hume. Haldane once wrote (1997: 167) "Like Thomas Reid … Aquinas himself is simply trying to identify at the level of a metaphysical description what is implicit in our everyday dealings with the world." Deely remarks (2001: 548) that Reid "was, as it were, the one man of the eighteenth century who stood up and said 'the emperor has no clothes on.'"

The *explicatio textus* of sense organ and faculty found in the *Commentary*, moreover, is remarkably similar to the method articulated by James Gibson in discussing the evolutionary development of human sense organs. It is through this evolutionary accommodation, Gibson suggests, that a human knower can make one's way around the environment. This position is often referred to as "ecological perception theory." While Gibson does not posit an ontology of holistic primary substances, nonetheless he considers the role the environment plays in determining how sense organs and faculties have developed and function. The same is true, *mutatis mutandis*, for Aquinas.[7] This gives a certain cash value to Aquinas's oft-repeated claim that "nature does not act in vain" and "the knowing faculty is made for the act of knowing, which in turn is made for the object of knowing."

A first response to these teleological claims in Aquinas is often — "How quaint!" quickly followed by a dismissal, especially by contemporary philosophers of mind. These "quaint discussions," however, may be

Aquinas's mode of introducing ''epistemological naturalism'' into the philosophy of mind discussion of cognitive faculties. In other words, human knowing faculties are made — or develop — for a particular environment, which is Gibson's claim. Haldane too observes this epistemological naturalism in Aquinas, and he once suggested (Haldane 2000: 39) that Aquinas and Willard Quine share some important metaphilosophical themes, since in the philosophy of mind, ''both are philosophical naturalists.'' The external and the internal sense faculties are what they are because the objects of sensation and perception are what they are.

Moreover, what is important for this discussion is Reid's affirmation of the distinction between sensation and perception. Mental acts of perception are aware cognitively of individual things and not of discrete sensibles or sense data. Furthermore, Reid argues that only perception is cognitive. The important philosophical question, however, concerns what grounds Reid offers to justify philosophically this distinction between sensation and perception. Haldane once observed wryly that at the end of the day, Reid throws up his hands and utters something like: ''It's magic!'' Reid also appeals to the ''Author of nature'' who set up our perceptual apparatus so that it can function in a common sense manner. Reid writes: ''The wise Author of our nature intended that a great and necessary part of our knowledge should be derived from experience before we are capable of remembering, and he hath provided means perfectly adequate to this intention'' (1967 [1764]: 25).

Deely too is concerned about the lack of philosophical analysis on Reid's part justifying the distinction between sensation and perception. Deely writes:

Reid's valiant effort to establish principles of common sense in modern philosophy, viewed in the light of earlier Latin developments in epistemology, had one great shortcoming which uncorrected, could only doom the effort. While Reid rejected the proposition that we directly know only our own ideas, which is the bedrock of modern epistemology, *he did so without having a way effectively to discriminate between sensation and perception as such.* Hence, he made his case of direct knowledge of physical things so strong as to be unable to deal as a matter of principle with the fundamental difference between perceptual objects in their objective constitution through relations and perceptual objects in what they have of a subjective constitution in as things accessible in sensation. (Deely 2001: 548; italics added)

This essay proposes that the mental act of the *vis cogitativa* enables Aquinas to affirm the distinction between sensation of accidental qualities — the proper and the common sensibles — and the perception of the in-

dividual primary substance as a thing. This entails postulating an internal cognitive structure to the mental act of the *vis cogitativa* that permits it to perceive an individual primary substance as such and not merely as a collection or bundle of sense qualities. While discussing the need for perception as distinct from sensation, Deely writes precious little about the *vis cogitativa*. This essay, in turn, offers a proposed development to the analysis of what Deely has provided in the *Four ages of understanding*.

9. Intentionality and the curse of representationalism

This section of the essay addresses several interesting connections between recent work on intentionality theories and Aristotelian realism. Deely too is much concerned with this set of issues. Deely writes:

The mainstream call for anything like a return to common sense remained that of Locke in his founding of empiricism, with the claim that the senses are the origin of all we know. Yet his followers along the mainstream way of ideas did not fail to notice that, in this regard, Locke with empiricism had done no better than Descartes with rationalism in restoring to modern philosophy a contact with the down-to-earth realm of material objects and everyday common sense. (Deely 2001: 548)

Furthermore, Hilary Putnam's denial that the mind is an "inner theatre" is akin structurally to the common sense philosophy of mind defended by Aquinas and Poinsot (cf. Putnam 2000). Putnam's "inner theatre" model is a direct reference to representationalism, which is familiar in all Cartesian and Lockean philosophy of mind. In his *My philosophical development*, Russell accepted this inner theatre paradigm:

I maintain an opinion which all other philosophers find shocking: namely, that people's thoughts are in their heads. The light from a star travels over intervening space and causes a disturbance in the optic nerve ending in an occurrence in the brain. What I maintain is that the occurrence in the brain is a visual sensation. I maintain, in fact, that the brain consists of thoughts — using "thought" in its widest sense, as it is used by Descartes. . . . What I maintain is that we can witness or observe what goes on in our heads, and that we cannot witness or observe anything else at all. (Russell 1959: 25–26)

Representationalism entails, first of all, that efficient causation is a sufficient condition to explain sensation and perception. Second, representationalism assumes what John McDowell and Putnam call "the highest common factor" between a veridical awareness and a non-veridical

awareness (e.g., an illusion). Both Putnam and McDowell suggest, on the other hand, that their explanation in terms of a ''disjunctive account'' entails a category difference between a perception and a dream image and thus undercuts the common factor that most representationalists assume. In other words, Putnam and McDowell's disjunctive account suggests the lack of a common property linking sense perception with dream images. This disjunctive analysis is directly opposed to the epistemological responses Descartes provides in the *First meditation*. Furthermore, this disjunctive method assists in elucidating Aquinas on intentionality theory, for Aquinas too holds this disjunction. Deely suggested that several neo-Thomist authors in the late nineteenth and early twentieth centuries worried about this same set of issues, but in a different context: ''When ... Neothomist authors entered the lists to combat modern idealism, one of their principal concerns was to show how a restored metaphysics faithful to the principles of a philosophy of being really would achieve what Locke and then Reid had in vain attempted, namely, a continuity with common sense'' (Deely 2001: 552).

In an earlier work, Deely (1994: 123) noted that by Locke's time, the late medieval scholastic philosophers had about a dozen synonyms for the intentional object in the understanding or imagination.

Less impressed with Aristotelian philosophy of mind, however, is Myles Burnyeat. In a much-circulated essay, ''Is Aristotelian philosophy of mind still credible?'' (Burnyeat 1995), he argued for a rejection of Aristotelian ontological realism. Aristotle's account of mind, according to Burnyeat, is no longer credible, and hence ''it ought to be junked.'' Simply put, Burnyeat argued that epistemological realism in Aristotle — and *a fortiori* in Aquinas and Poinsot — was dependent on a theory of ontological hylomorphism that is, in the eyes of contemporary philosophy, neither acceptable nor understandable. Burnyeat, furthermore, appeared to argue against what he took to be the materialist/physicalist account of Aristotle put forward by Richard Sorabji (1995). Burnyeat argues for three points:

1. The only way for Aristotle — and Aquinas — to be coherent on these matters is to argue for some ''spiritual'' reception of forms.
2. However, Proposition #1 above entails that some form of Cartesian substance dualism is a necessary condition for philosophy of mind, which negates the Sorabji position.
3. The rise of the new science in the seventeenth century, with its theory of corpuscular matter, rejected categorically ontological hylomorphism. If Aristotelian philosophy of mind depends on hylomorphism, then it must ''be junked.''

Burnyeat suggests that a reception of forms, however analyzed, must be immaterial, which entails, in his mind, spiritual existence. In this analysis, Burnyeat appears not to accept the common scholastic distinction between "spiritual" and "intentional." This entails Cartesian dualism, which denies the materialist account put forward by Sorabji. Finally, form entails hylomorphism, which modern philosophy rejects. Thus, Aristotelian philosophy of mind "ought to be junked. Nussbaum and Putnam (1995: 195–225) wrote an extensive response to the Burnyeat challenge to Aristotle's philosophy of mind. In essence, they refute, first of all, the materialist account put forward by Sorabji, and second, they offer a functionalist interpretation of Aristotle. The issues of functionalism, however, are beyond the limits of this paper. Nonetheless, however one might account for Aquinas's philosophy of mind, it is not reducible to a functionalist position. All three of these philosophers — Nussbaum, Putnam, and Burnyeat — neglected, however, to discuss a theory of intentionality based on formal identity. This is the epistemological importance of Deely's account of the "formal sign" based on the writings of Poinsot. This provides Aquinas and Poinsot a means to hold both ontological realism and epistemological realism. In this way, Aquinas offers a middle ground position between Cartesian substance dualism on the one hand — which Burnyeat appears to adopt — and the physicalism and functionalism of much contemporary studies in the philosophy of mind on the other. It follows that Aquinas's account rejects the reductionist materialism, which Sorabji appears to force onto the Aristotelian philosophy of mind, without falling into Cartesian immaterialism.

10.   The incidental object of sense: The *vis cogitativa* as opposed to classical representationalism

In his philosophy of mind texts noted above, it is clear that Aquinas, again following Aristotle, adopts a three-fold division for the objects of sense knowledge: the proper sensibles, the common sensibles, and the incidental object of sense. There is no analogue in classical British empiricism, however, for the incidental object of sense. Given the bundle view of perception espoused by Berkeley in *Principles* and Hume in *The enquiry*, among other places, theoretically there is no room left for the incidental object of sense. Berkeley and Hume analyze an individual in terms of a collection of sensible properties and they both argue for the "bundle view of perception." The following texts explicitly note this "bundle view" or "heap" position for the objects of perception. In Berkeley's *Principles*, one finds the following passage: "Thus, for example, a certain color, taste, smell, figure and consistency, having been observed to go

together, are accounted one distinct thing, signified by the name "apple." Other collections of ideas constitute a stone, a tree, a book, and like sensible things" (Berkeley 1948 [1710]: #1).

In his *An enquiry concerning human understanding*, Hume used the same analysis, substituting a peach for an apple: "As our idea of any body, a peach, for instance, is only that of a particular taste, color, figure, size, consistency, etc., so our idea of any mind is only that of particular perceptions without the notion of anything we call substance, either simple or compound" (Hume 1975 [1748]: 194).

These texts from Berkeley and Hume indicate that the bundle view is the paradigm of perception accepted by these empiricists. In Chapter Thirteen of *Four ages of human understanding*, Deely discusses these empiricist issues at some length. A physical object is nothing more than a collection — i.e., a set of sense qualities — that in British empiricism would be the set of primary and secondary qualities. On the other hand, Aquinas, in espousing a "thing consciousness" paradigm, goes beyond the limits of the bundle view paradigm. In his *Commentary on the soul*, Aquinas attributes to the *vis cogitativa* the inner sense structure necessary to articulate this more sophisticated account of perception. This theme is developed more fully in the *Commentary* than in the *Summa Theologiae* or the *Summa Contra Gentiles*.[8]

Having seen how we should speak of the absolute or essential sense objects, both common and proper, it remains to be seen how anything is a sense object "incidentally." Now for an object to be a sense object incidentally, it must first be connected accidentally with an essential sense object; as a human person, for instance, may happen to be white, or a white thing may happen to be sweet. Secondly, it must be perceived by the one who is sensing. If it were connected with the sense object without itself being perceived, it could not be said to be sensed incidentally. But this implies that with respect to some cognitive faculty of the one sensing it, it is known, not incidentally, but absolutely. Now this latter faculty ... (is) the *vis cogitativa*. (*Commentary on the Soul* # 395)

Thus as soon as I see anyone talking or moving herself, my intellect tells me that she is alive and I can say that I see her alive. But if this apprehension is of something individual, as when, seeing this particular colored thing, I perceive this particular man or beast, then the cogitative faculty (in the case of human persons at least) is at work, the power that is also called the "particular reason" because it correlates individualized notions, just as the "universal reason" correlates universal ideas. (*Commentary on the Soul* # 396)

It is because of the act of awareness of the *vis cogitativa* that one can affirm the distinction between sensation and perception. The following texts from the *Commentary* elucidate these issues:

Thus I perceive indirectly that so and so is Cleon's son, not because he is Cleon's son, but because he is white. Whiteness as such only happens to be connected with Cleon's son. Being the son of Cleon is not (like sweetness) indirectly visible in such a way as to imply its being directly perceived by some other sense. (*Commentary on the Soul* # 580)

The *vis cogitativa* is always of a man as this man, and of a tree as this tree. (*Commentary on the Soul* # 398)

The *vis cogitativa* apprehends the individual thing as existing in a common nature, and this is because it is united to intellect in one and the same subject ... Instinct, on the other hand, is not aware of an individual thing as in a common nature. (*Commentary on the Soul* # 398)

Sensation in Aquinas is the awareness of the set of proper and common sensibles. Perception, on the other hand, is the awareness of an individual primary substance. Hence, this is Aquinas's method for distinguishing sensation from perception. In *Commentary* # 399, Aquinas also distinguishes animal instinct, which is also an *intentio non sensata*, from an awareness of a primary substance as a unified whole.

Accordingly, Aquinas not only has primary substances in his ontology, but his philosophy of mind is structured so that the perceiver might be aware of these primary substances. Simply put, the *vis cogitativa* explains the possibility for the awareness of individual substances as distinct entities of a natural kind. The end result is that Aquinas asserts the two following propositions:

1. There are individual things (primary substances) in the external world.
2. We are aware of these individual things (primary substances) as individuals and not as mere collections of proper and common sensibles.

11.   A Kantian turn with the *vis cogitativa*: *Intentiones non-sensatae*

To explain the possibility of perception of the individual one must elucidate the concept of *intentiones non-sensatae* or *intentiones insensatae*. The following texts indicate how Aquinas provides an analysis of the *vis cogitativa* and the concept of *intentiones non-sensatae*.

Aristotle next takes the third member of the division. We might, he says, call Diares or Socrates incidentally a sense object because each happens to be white: that is sensed incidentally (*sentitur per accidens*) which happens to belong to what is sensed absolutely (*sentitur per se*). It is accidental to the white thing, which

is sensed absolutely, that it should be Diares. Thus, Diares is a sense-object *incidentally. He does not, as such, act upon the sense at all.* (*Commentary on the Soul* # 387)

An indirect (incidental) object of sense is that which does not act on the sense, neither as sense nor as a particular sense, but is annexed to those things that act on sense directly. For instance, Socrates; the son of Diares; a friend and the like, which are the direct object of the intellect's knowledge in the universal, and in particular are the object of the cogitative power in human knowers, and of the estimative power in other animals. The external sense is said to perceive things of this kind, although indirectly, when the apprehensive power, i.e., the *vis cogitativa* (whose province it is to know directly this thing known), from that which is sensed directly, apprehends them at once and without any doubt or discourse — thus we see that a person is alive from the fact that she speaks. Otherwise, the sense is not said to perceive it even indirectly. (*Summa Theologiae, Supplementum ad III*, Q. 92, a. 2)

We have seen that sensation is a ''being acted upon'' and ''altered'' in some way. Whatever, then, affects the faculty in, and so makes a difference to, its own proper reaction and modification has an intrinsic relation to that faculty and can be called a sense-object in itself or absolutely. *But what makes no difference to the immediate modification of the faculty we call an incidental object*. Hence, Aristotle says explicitly that the senses are not affected at all by the incidental object as such. (*Commentary on the Soul*, # 393)

The analysis of these texts suggests how Aquinas goes beyond the ''magic'' of Reid. The mental act of the *vis cogitativa* is a structured mental act in a manner akin to Gestalt psychology. Deely also refers to this conceptual similarity with Gestalt Psychology, when he writes the following:

The argument here anticipates, more or less completely, the famous notion of ''Gestalt'' that would be introduced into scientific psychology in the early decades of the twentieth century … The field of perception reveals objects in a way and according to properties that cannot be derived from a mere summation of its purely sensory components. (Deely 2001: 346)

This innate mental structure provides for the awareness of the individual. The philosophy of mind is developed in order to explain how an awareness of an individual primary substance beyond the limits of an awareness of a bundle of sensibles might be possible. However, Deely and this author may disagree on the object of this awareness of inner sense. Deely remarks that the inner sense faculty ''forms a perception or *image*, on the basis of which it relates to a pattern of sensory stimulus as an object of experience …'' (2001: 346, italics added). Deely goes on to

write that "there is a disproportion between the stimulus as such and what is perceived as object." It is correct that the disproportion exists. Yet the object of the *vis cogitativa* is not an "image." Rather the mental act is so structured that it is always aware of the individual as an individual. This is the cash value of the *intentio non sensata*.

The important question concerns the significance of this account for Aquinas's theory of sensation and perception. It appears that Aquinas provides a modified Kantian account of the perception of the individual. Since *intentiones non sensatae* cannot come about through the external senses, there must be some active contribution, what might be called a "conditioning" or a "structuring" of the mental act itself, on the part of the *vis cogitativa*. This intrinsic structure enables the *vis cogitativa* to perceive individuals as substantival wholes of a natural kind and not merely as bundles of sensations. In this case, Aquinas's epistemological account is not a reception of a form immaterially or intentionally in a straightforward isomorphic way. There is, however, a variant of isomorphism. But this isomorphism is with the essence determining principle — the *forma substantialis* — as found in the individual primary substance. This individual is an individual of a natural kind. In this discussion, there is a conceptual difference between an *ens rationis* — a "being of reason" in scholastic philosophy — and an *intentio non-sensata*. The former comes about by means of a reflective awareness of the intellect; the latter is reducible to an innate structuring of the mind that permits the mind to perceive an individual primary substance as just that — an individual and not just a collection of proper and common sensibles. Deely, it would appear, blurs this distinction when he writes about "... the role of *entia rationis* in the structuring of perception as such (*phantasiari*) in its distinction from and possible independence of ... human understanding or reason *tout court*" (2001: 470).

If the above analysis is correct, then it appears that the *vis cogitativa* is the crucial sense faculty in Aquinas's account of perception. It is by the conditioned awareness of this faculty that the individuals of the world, which in effect are the primary substances of his ontology, are perceived. Insofar as Aquinas affirms the existence of a world of individuals, he also provides the epistemological and philosophy of mind machinery necessary for a perceiver to be aware of these individuals. Furthermore, because a primary substance is an individual of a kind, which natural kind in Aquinas's ontology is determined by a substantial form, the *vis cogitativa* is also aware of an individual as one belonging to a natural kind. The *vis cogitativa* explains, after a Kantian fashion, the possibility for the perception of primary substances, which are the *hoc aliquids* of the external world.

In his monograph, *De Principio Individuationis*, Aquinas sums up nicely the issues under consideration in this part of our discussion. Note the following text:

However, the quiddity of a particular thing in its particularity *does not fall under (is not seen as) a per se object for the exterior senses*, because the quiddity itself is a substance and not an accident, nor does it pertain to the intellect as a *per se* object on account of its materiality. Therefore, *the quiddity of a material thing in its very particularity is the object of the particular reason*, whose task it is to confront particular intentions, and whose place in brutes is the natural aestimative power. This power on account of its conjunction with the intellect — where is found the very reason which treats of universals — participates as a collective power; but because it is a part of the sensitive order, it does not completely abstract from all matter. *Hence its proper object remains a quiddity of a material particular.* That which falls under the particular reason is an individual (*hoc aliquid*) found in a material nature (*per naturam materiae*); what falls under the external senses is through quantity. (*De Principio Individuationis*, Ch. II [Parma Edition], XVI)[9]

Without this structured awareness of an individual primary substance on the part of the *vis cogitativa*, a human knower would be deficient in two substantive ways. Aquinas was not one, to be sure, to permit philosophical deficiencies to blossom in his ontological theory or into his philosophy of mind.

1. A human knower would be unable to be aware directly of the fundamental ontological categories in Aquinas's metaphysics, which are individuals of natural kinds; these are, of course, primary substances.
2. A human knower would be less able to ''abstract'' the essence from the phantasms in the sense memory using the *intellectus agens*.

The *explicatio textus* suggested here is remarkably similar, it would seem, to the method noted above and articulated by James Gibson in discussing the evolutionary development of human sense organs. It is through this evolutionary development that a human knower can make one's way around the environment. Haldane is quite explicit about this epistemological naturalism in Aquinas.[10] The human mind, through its intentional structures, is geared towards understanding the existing primary substances, which are individuals of a natural kind.

In his philosophy of mind, Aquinas, like Aristotle before him, rejects the analysis of a mental act in the Platonic mode of ''knowledge as acquaintance.'' This is a rejection of what Moore called the ''diaphanous mental act.'' Readers familiar with Moore (1965 [1903]: 25) will recall his discussion of the intentionality of mental acts in terms of their being ''diaphanous'' — what is sometimes referred to as the ''diaphanous arrow of consciousness.'' Aristotle and Aquinas adopt what might be called a

"structured mental act." These root cognitive structures ground the possi-
bility of a coherent knowledge of the external world. This is the inten-
tional structure, it would seem, that is necessary for the development of
what Poinsot refers to as the "formal sign."

12.   The *vis cogitativa* and the *intellectus agens*

An awareness of the individual is a necessary condition for Aquinas to of-
fer the possibility for a coherent explanation of the process of abstraction
with the *intellectus agens*. Book II of the *Summa Contra Gentiles* contains
propositions linking abstraction with the phantasms of inner sense:

... phantasms (are) prepared by the *vis cogitativa* in order that they may become
actually intelligible and move the possible intellect. (*Summa Contra Gentiles*,
Book II, Ch. 76)

... the *vis cogitativa* is ... directed to the possible intellect ... only through its act
by which the phantasms are prepared, so that by the *intellectus agens* they may be
made actually intelligible; in this way, the possible intellect is perfected. (*Summa
Contra Gentiles*, Book II, Ch. 73)

In the following passage, Aquinas brings in all three inner sense
faculties:

It is through the *vis cogitativa*, together with the imagination and the memory,
that the phantasms are prepared to receive the addition of the *intellectus agens*,
whereby they are made actually intelligible. (*Summa Contra Gentiles*, Book II,
Ch. 60)

Adopting a "structured mental act" analysis entails placing two impor-
tant intentional structures in Aquinas's philosophy of mind:

1.   The *intellectus agens*.
2.   The *vis cogitativa*.

Both of these intentional structures are necessary conditions in order
for Aquinas to provide an account of an awareness of essential properties.
Both transcend direct data from the external senses. The *intellectus agens*
is the cognitive power of abstraction. In discussing Etienne Gilson's
account of Aquinas's philosophy of mind, John Peterson once wrote
(1976: 7): "The senses carry a message which they cannot themselves in-
terpret." In this discussion, Peterson and Gilson refer only to the *intellec-
tus agens*. The thrust of the analysis offered here argues unequivocally
that the *vis cogitativa* must be included in the discussions of intentional

structures with this cognitive characteristic proposed by Gilson and Peterson. Hence, the working of the *vis cogitativa* enables the *intellectus agens* to engage in the process of abstraction. If the *vis cogitativa* were not aware of individuals of a natural kind, then the mental act of abstraction would be almost an empty process scattered among bunches or arbitrary groupings — i.e., heaps — of discrete and unconnected proper and common sensibles. The *vis cogitativa* prepares the way for the mental act of abstraction. Without these innate cognitive structures, one on the level of perception and the other on the level of abstraction, Aquinas would be unable to develop a coherent theory of intentionality. This important function of this faculty of inner sense is, then, hardly ''an embarrassment,'' which is the position noted earlier that Dorothea Frede (2001) proposed.

The possibility of our being aware of individual things is accounted for by means of the phantasm-structured *vis cogitativa*. The external sensorium is aware of unified wholes of proper and common sensibles. At this point in the process — i.e., the external sensorium — Aquinas's account is similar structurally to the bundle view paradigm articulated by Berkeley and Hume. The *vis cogitativa*, however, is aware of the primary substance as a primary substance — an individual. The mental act of the *vis cogitativa* renders the awareness of ''unified collection of qualities'' from the external sensorium into an awareness of an individual of a natural kind. In effect, it is because of the *vis cogitativa* that Aquinas can distinguish between sensation and perception, and, *a fortiori*, transcend the limits of modern and contemporary British empiricism.

This *explicatio textus* of Aquinas on the *vis cogitativa*, therefore, offers a way to account for the awareness of individuals independent of and quite different from the reflexive act of the intellect, which Aquinas discusses in the *Summa Theologiae* 1.86.1, ''Whether the intellect knows particulars.'' On the level of sense perception utilizing the internal sense of the *vis cogitativa* conjoined with the notion of *intentiones non-sensatae*, Aquinas pushes the boundary of traditional empiricism. In this way, he would in principle accept the category difference between sensation and perception affirmed by Reid. Aquinas, however, through the structured mental act of the *vis cogitativa*, transcends the ''magic'' of Reid on perception. In this way, Aquinas responds to the worries articulated by Ryle nearly fifty years ago with which this analysis began.

It is appropriate to compare the acts of awareness of the *vis cogitativa* with what is common sensibly referred to as ''experience.'' The first time Megan sees Elin, she obviously does not recognize her as Elin. As far as being Elin to Megan the perceiver, through the external sensorium alone, Elin is no more than a mere bundle of sensations. Yet Megan perceives a

distinct person as a substantive unity. Furthermore, after Megan has begun to know Elin, then she immediately recognizes Elin "as Elin" as soon as Elin comes into view. It is important to realize that Aquinas does not claim that one remembers this particular bundle of sensations — i.e., the concrete whole — as Elin. Rather, one *perceives* her to be Elin as a substantial unity — a person. Yet "being Elin" is not some type of discrete property that is directly perceivable in the external world. "Being Elin" is neither a proper nor a common sensibility. This is an important part of Aquinas's theory of sense perception.

Accordingly, Aquinas claims that it is by means of the internal sense of the *vis cogitativa* that a human perceiver is able to "immediately perceive" an individual as an individual. In other words, when Megan is directly aware of Elin, she is not remembering what she saw earlier as this same bundle of sensations. On the contrary, she is directly aware that this *hoc aliquid* is Elin — a particular individual or primary substance of a natural kind. That such an individual property is unperceivable *per se* is, furthermore, consistent with Aquinas's theory of individuation. Aquinas resolves the ontological problem of individuation in his metaphysics by postulating that "*materia prima*" is the principle of individuation. Accordingly, there is no postulation of an individualizing form similar to the *haeccaeitas* proposed by Duns Scotus. It follows from what Aquinas assumes about intentionality that only a form can be knowable directly. Since *materia signata quantitate*, which is the direct opposite of a form, is the individuator, there is nothing as such in the external world that could be the object of the mental act of direct awareness regarding an individual as an individual. Therefore, Aquinas makes use of the *vis cogitativa* structured by an *intentio non-sensata* as the faculty of the internal sensorium, whose structured mental act accomplishes our awareness of individuals and not just of "concrete wholes" or "bundles of sensations." This permits Aquinas to transcend the limits of British empiricism regarding the possibility of perceiving individual objects and not merely a heap of sensible qualities.

13.   Contemporary work on the *vis cogitativa*

John Wisdom in "Philosophical perplexity" once noted the following important distinction presupposed in this analysis of Aquinas on inner sense. Philosophers must distinguish, Wisdom argued, between what he called "sense statements" and "thing statements" (1966: 292). Roderick Chisholm, in *The problem of the criterion* (1974), offered much the same analysis: there is a "particularist epistemology," which argues for the

priority of a "thing consciousness" rather than for the "bundle view" common to British Empiricism. Aquinas followed by Poinsot would accept Wisdom's distinction and Chisholm's suggestion about the importance of a "particularist epistemology."

Deborah Modrak, in her *Aristotle: The power of perception*, seems open to the analysis articulated in this essay. Modrak, in discussing the proper and the common sensibles in Aristotle (*kath' hauta*), suggests that the incidental object of sense (*kata sumbebekos*) is categorically distinct from the proper and the common sensibles. Modrak writes: "The sensory basis for the perception of an individual object does not fully determine the content of the perception." She goes on to suggest the following:

> ... the percipient plays an active role in shaping the content of an individual perception. (Also) ... the perception of an incidental object arises spontaneously in the perception when past and present experiences are conducive to the apprehension of the incidental object in question.... Moreover, there is no textual evidence for attributing to Aristotle a narrow notion of perception that would exclude interpretation. (Modrak 1987: 69–70)

This analysis argues that Aquinas's faculty psychology of cognitive structure by means of the inner sense of the *vis cogitativa* provides the necessary philosophy of mind machinery that Aristotle neglected. This account offers an explication for what Modrak calls "interpretation" in the immediate perception of the incidental object of sense. Aquinas, with the *vis cogitativa*, provides an explanatory account of how this "interpretation" takes place. Deely would, it would seem, concur.

More recent work on the *vis cogitativa* in analytic philosophy, however, raises some concerns. Noted earlier was Dorothea Frede's article in the Perler volume, "Aquinas on *Phantasia*," where she remarked that possibly Aquinas's use of the inner sense of the *vis cogitativa* is an embarrassment in his over all philosophy of mind: "This ability is something of an embarrassment for it seems to be an ability that is somehow *in between* sense-perception and thought" (Frede 2001: 170). Why, one might ask, is the *vis cogitativa* an embarrassment? The argument articulated here is that the *vis cogitativa* provides a necessary function "between sense-perception and thought." Furthermore, without the *vis cogitativa*, Aquinas's philosophy of mind would be terribly muddled and indeed an embarrassment.

In his essay in the Perler volume, Cyrille Michon proposes a propositional view in order to understand the functioning of the *vis cogitativa*: "The presentation of phantasms to the intellect, for abstraction or conversion, does not involve any kind of judgment. However, the cogitative

power is needed for a direct and non-intellectual knowledge of the singular, which is a complex knowledge, a judgment'' (Michon 2001: 339).

Michon is correct in suggesting that there is a non-intellectual knowledge of the particular, which would be a primary substance. Michon attempts to incorporate recent work from Donald Davidson and others on the matter of proto-thoughts. He suggests that the workings of the *vis cogitativa* would be an example of a proto-thought mechanism. However, the claim of this essay is that this awareness is neither a judgment nor a proposition but rather a Gestalt-like perception based on a structured mental act using the *vis cogitativa*. Deely would, it would seem, accept this position on the *vis cogitativa*. Aquinas does not refer to a "judgment" in texts discussing the *vis cogitativa*. Hence, the *explicatio textus* offered here is that a "conditioning" or "structuring" of the mental act in a Gestalt manner provides for the awareness of an individual of a natural kind. In this way, Aquinas saves his epistemological realism and his ontological realism. Poinsot does likewise.

14. Seven summary propositions

The following is a summary list of the philosophical propositions affirmed in this analysis of the inner sense of the *vis cogitativa* in Aquinas's philosophy of mind:

1. The *vis cogitativa* is the faculty, which perceives the individuals of the world. In Aquinas's ontology, these would be the primary substances, each of which is a *hoc aliquid*.
2. This perception is of an individual of a natural kind.
3. This awareness transcends the boundaries of the external senses. The external senses are limited, given the structure of Aquinas's philosophy of mind, to an awareness of proper and common sensibles.
4. The awareness of the *vis cogitativa* is an "active contribution" to the perceiving process — a structured mental act — to be aware of individuals as individuals and not as bundles of sensations.
5. It follows from 1 through 4 above that Aquinas developed a philosophy of mind on the perceptual level sufficient to provide for an awareness of individuals.
6. This account of the awareness of an individual is in addition to the usual account of the reflexive awareness of the intellect so common to explications of Aquinas's philosophy of mind. Cf. *Summa Theologiae*, Ia., Q. 86, art. 1: "Whether the intellect knows particulars."
7. It follows that Aquinas offers an account for the awareness of individuals as individual *hoc aliquids* on the level of sense perception.

15.   Concluding propositions on the mental act of the *vis cogitativa*

Given the propositions articulated above, the following list of conclusions can be enumerated:

1.   The *vis cogitativa*, in opposition to Frede's claim, is not an embarrassment.
2.   The awareness of the mental act of the *vis cogitativa* is a structured, Gestalt-like awareness.
3.   The awareness is not a judgment or proto-judgment.
4.   This mental act distinguishes sensation from perception in Aquinas's philosophy of mind.
5.   This act of awareness of the individual of a natural kind, in a Kantian fashion, is neither magic nor an instance of Divine Illumination.
6.   The act of the *vis cogitativa* is more than a reduction to the structure of the *vis aestimativa*, which many philosophers, both in the scholastic and the analytic traditions, have suggested. For example, see George Klubertanz (1952), William Kneale (1971), Simon Kemp (1990), and Edward Mahoney (1984), among others.
7.   This analysis of the *vis cogitativa* proposes an account of a structured mental act of perception, which better explains the account of "abstraction" by means of the *intellectus agens*. Both the perceptual and the conceptual realms, therefore, have higher-level structured mental acts, which when conjoined, enable Aquinas to offer an account of human knowledge of the primary substances of the external world. This is an example of what in the late twentieth century became known as "cognitive psychology."

With his discussion of the *vis cogitativa* and its mental act, Aquinas accepts in principle John Wisdom's distinction and is concerned about the same set of issues. Through his analysis of the *vis cogitativa*, Aquinas undercuts the sense data theories of early twentieth century epistemology found in the writings of Russell, Moore, Price, and Ayer, and also the representational empiricism of Locke, Berkeley, and Hume. Aquinas accomplishes this by suggesting, in effect, that our experience is of things rather than of sense data. In addition, by using a meta-philosophical methodology entailing a cognitive faculty psychology, Aquinas provides the philosophy of mind machinery necessary to explain the possibility of an act of awareness of an object beyond the immediate data of the proper and the common sensibles. There is a similarity with Peter Strawson, who once claimed that "particulars" are the basic elements of a human perceiver's conceptual scheme. Accordingly, Aquinas, like Strawson, suggests that it is a philosophical howler to assert that human perceivers are

primarily and fundamentally aware of bundles of sense data. To the contrary, human perceivers have a direct awareness of "thing consciousness" or "individual consciousness." Furthermore, this "consciousness" and "intentional awareness" are rudimentary for human perceivers. The intentionality of mind is geared towards perceiving and understanding a world of primary substances. It is this goal in mind that leads Aquinas to develop the structured positions that he articulates in his sophisticated philosophy of mind.

16.   The inner sense theory and contemporary scientific explanation

Before closing this analysis of medieval and renaissance cognitive theory, historians of philosophy might consider the recent analysis of inners sense put forward by the historian of psychology, Simon Kemp. Kemp offers several significant suggestions in his evaluation of the medieval theory of inner sense, which will be indicated briefly in what follows. First of all, this theory is, Kemp suggests, an "information-processing model." Second, the theory is consistent with "discrete stage-processing models," which, Kemp notes, have been important in twentieth century cognitive psychology. These models argue that cognitive information is transformed in discrete stages. Third, contemporary psychologists distinguish between "episodic memory" and "semantic memory."[11] For Aquinas, the former would be located in the inner sense faculties and the latter in the mind; this "semantic memory" appears to be similar structurally to Peter Geach's analysis of the concept in Aquinas (Geach 1971 [1957]: 11–17) as a cognitive ability.

Kemp suggests that when considering the value of medieval theories of inner sense, one needs to consider the meta-scientific theory articulated by recent philosophers of science.[12] The necessary conditions for an adequate scientific theory include: (1) explanatory depth; (2) unifying power; (3) consistency and coherence; and (4) application. The theory of inner sense as developed in medieval cognitive theory, Kemp argues, did attempt to explain perception theory. Moreover, it was a unified position covering the developing stages of phantasm formation, and the overall cognitive theory appeared to be consistent internally. Lastly, Kemp writes that the theory helped account for certain mental aberrations — nightmares, delusions, et al — that were explained through the malfunctioning of the *vis cogitativa* or the *phantasia*.

Historians of philosophy might reflect on Kemp's admonition to his fellow psychologists — and also, it would appear, to contemporary philosophers of mind — who too readily dismiss medieval and renaissance

cognitive theories as trivial: "However, we would claim that the theory of the inner senses was an elaborate and innovative exposition that, even in retrospect, can be regarded as a considerable scientific achievement" (Kemp 1993: 572–573).

The same might be argued in defense of the philosophy of mind positions on inner sense offered by Thomas Aquinas and John Poinsot.

17.   Conclusion

This concludes the analysis — an *explicatio textus* — into the somewhat muddled region of inner sense — *phantasia* — rooted in Thomas Aquinas, developed by John Poinsot, and reinterpreted for contemporary philosophy through John Deely's theory of signs. This is a bit of philosophy of mind rooted in Aristotle's *De Anima*, but an account developed so much further. If this account is sufficiently perspicuous, possibly it will help address what Haldane suggested as "one of the tasks for the next century." The texts from the *Summa Theologiae* and the *Commentary on the soul* justify the explanatory analysis put forward and developed in this essay. Hence, the incidental object of sense is an *intentio non-sensata* known through the intentional activity of the *vis cogitativa*. Given this analysis, the *vis cogitativa*, in an explanatory mode, is not an embarrassment to Aquinas. On the contrary, this faculty provides the possibility for the awareness of an individual of a natural kind on the level of perception. This, in turn, renders the entire abstraction process, which is part of the intellect, more coherent. This analysis has argued that, for Aquinas, the *vis cogitativa* is a necessary component between sense perception of the individual and conceptual thought by means of abstraction; this is, of course, the position that Frede called an embarrassment. To reiterate an earlier observation, without the *vis cogitativa*, to the contrary, Aquinas's philosophy of mind would be both much muddled and indeed an embarrassment.

Notes

The author is grateful to Sir Anthony Kenny for his suggestions of the role of inner sense in Aquinas. This present version, written at the invitation of the author's friend, John Deely, enabled the author to rethink his earlier work within the context of Deely's significant study, *Four ages of understanding*, and to consider his own analysis of inner sense through the additional lenses of John Poinsot's theory of signs.

1. Pickstock (2000) was reprinted as the first chapter of Milbank and Pickstock (2000). For a critique of Pickstock's position, one might read Kenny's rather trenchant account (2001: 14).

2. One might suggest that had Bergmann read Poinsot's works on the philosophy of mind, he would have found them philosophically congenial.

3. For a discussion of the role of ordinary language philosophy in the revival of late twentieth century Thomism, one might read Kerr (2002: Ch. 2).

4. Gauthier argued that Aquinas completed this Aristotelian commentary before he left Rome for Paris in 1268. He further argues that Thomas was composing Questions 75–89 of the *Prima Pars* of the *Summa Theologiae* at the same time he was writing the *Commentary on the Soul.* Gauthier then claims that all three books of the *Commentary* appeared in Italy before September 1268, at which time Thomas left Rome for Paris. Simon Tugwell (1988) refers often to the important work of Gauthier.

5. The English translation of Torrell (1996: 172) contains a thoughtful discussion of Gauthier's research. Those interested in these issues might consult Gauthier's work, or Pasnau's introduction to his own translation of Aquinas's *Commentary*.

6. For an analysis of intentionality theory in Thomas, one might consult Lisska (2006).

7. Historian of psychology Harry Heft assisted in this discussion of Gibson's work.

8. Furthermore, in some texts of Aquinas, the particular reason is equated with the *vis cogitativa*. In none of these texts, however, is the *ratio particularis* identified with the *intellectus possibilis*. Hence, all of this intentional activity is undertaken on the level of sense perception. See the discussion in Deely (1971) and Lisska (1973).

9. This text is found in the Latin in Klubertanz (1952: 296–297), along with discussion; italics not in the original. There exists some debate over the authenticity of this treatise.

10. Noted earlier was Haldane's suggestion that in their theories of knowledge, Aquinas and Quine are both philosophical naturalists.

11. See Kemp (1993: 568–569). The author's friend, professor of psychology Harry Heft, introduced the author to the important studies undertaken by Kemp.

12. Kemp (1993: 572) refers to the work of Larry Laudan (1984).

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From *sémiologie* to postmodernism: A genealogy

ALEXANDROS PH. LAGOPOULOS

Abstract

The purpose of this article is to present the genealogy of neomodernism, as it starts with the Saussurean linguistic turn and was further elaborated by Russian Formalism and the Prague Circle, as well as by the Linguistic Circle of Copenhagen with its leading figure Hjelmslev. Deely points to an actual overlapping between Peircian semiotics and the French tradition (the quest for a general theory of signs), an overlapping that acts as the background for the operations of comparison and replacement he performs. From this common root or summit, the two paradigms split and follow two totally different directions. The strong position of Deely that it is the (discontinuous) tradition starting with Augustine and reemerging with the ''high semiotics'' of the later ''Latin'' age that leads to ''postmodernity,'' as well as his view that Peirce (to whom he adds secondarily Heidegger), who takes over from the ''Latins,'' opens the fourth age of human understanding and is the last modern but also the first postmodern philosopher, comes as a surprise, because of the divergence of Deely's genealogy of postmodernism from the actual historical continuities. This divergence becomes even more striking if we take into account the almost total indifference of neomodernism to Peirce's ideas: replacement of the historical with the normative leads to an historical anachronism, because Deely is obliged to recess postmodernism about a century back, with the result of creating a philosophical postmodernism that contradicts historical postmodernism. What should be emphatically stated is that neostructuralism / neomodernism is not a partial theory, as Deely believes, but a global one that, contrary to Deely's view, subsumes natural under cultural signs, thus proposing a different global theory of signs from the Peircian one; this different theory is the only theory inseparably linked to neomodernity as an historical condition.

Keywords: structuralism; poststructuralism; postmodernism; Peircean semiotica; Maxism; surrealism.

1. The political economy of postmodernism: From primitive to flexible accumulation of capital

During the last three decades or so we witnessed the international diffusion and domination of a new way of theorizing, which has been called "postmodern," an approach that has permeated all the social sciences, the humanities, philosophy, and art theory and practice. Of course, this new way of theorizing did not emerge as an independent phenomenon, but is part of the wider sphere to which it belongs and which is none other than culture. Being part of a certain kind of culture, postmodernism as a specific theoretical approach is inescapably tied to the contemporary culture to which it corresponds, namely postmodernism as a cultural formation, as the postmodern culture. In turn, even the most convinced postmodern writer would not deny that a cultural formation is not an independent phenomenon, but corresponds to a certain type of society, which, through the combination of a sociological and an historical criterion, is currently called, in a more general and politically neutral manner, "postmodernity" or "the postmodern era"; in more specifically economic but still politically neutral terms, "postindustrial"; and with a socioeconomic and political perspective "(late) capitalism." Note that the above terms seem to create a contradiction at the heart of postmodern theorizing, because they appeal to an external referent, an objective reality, which is usually ostracized by this kind of theorizing. But this observation puts the cart before the horse, since I shall deal later with this issue.

Postmodern culture is not today a universal phenomenon. It emerged in the economically developed societies of our times, in Europe and in the U.S. (cf. Lyotard 1979: 7; Bauman 1992: 187; Hutcheon 1988: 4), as indeed the terms postindustrial and late capitalism suggest. Its location within such a societal framework is also a location in historical time, within a certain historical period, the end of which is not yet known. This is not the case with its beginning, although there is a certain divergence of views on this. The divergence concerns the period from World War II to the 1970s. Thus, certain authors consider that the modern period closed with the end of this War. Others consider that the period from 1945 to 1970 is "late modern," and only from the mid-1970s did a tentative postmodernism make its appearance in culture, following a new spirit in the second half of the sixties that escapes from the assumptions of modernism (cf. Rose 1992: 127–128). In this context, David Harvey believes that postmodernism emerged in the 1970s as a consequence of cultural movements that had appeared starting in the mid-60s (Harvey 1989: 63, 285).

There is finally a third view, in-between the above two, in the context of which a minimum and a maximum historical time for the appearance of postmodernism is defined. According to Jean-François Lyotard, the transition to the postindustrial and postmodern period coincides with the end of the reconstruction in Europe after the damages of the War, thus dating from at least the end of the 1950s (Lyotard 1979: 11). Other authors also locate the early phase of postmodern culture in the 1950s, as, for example, Ihab Hassan, who believes that the early traces of postmodern culture are present already in the mid-50s (Hassan 1987: 214). Similarly, Charles Jencks considers Pop Art theory of the 1950s and the eclecticism to which it led in the 1970s, as well as, for example, Neo-Realism, as postmodern movements, and Andreas Huyssen considers that from the mid-1950s there was a rebellion of a new generation of artists, soon joined by critics, against abstract expressionism, serial music and classical literary modernism, though this did not yet constitute a truly postmodern movement. According to him, postmodernism is a phenomenon which appeared in the late 1950s, when the earlier adversary role of late, high modernism was superseded, as a result of the fact that artists and critics alike had the feeling that they were living in a new situation fundamentally different from the preceding one. A kind of synthesis of these different assessments concerning the 1950s and 1960s and the emergence of postmodernism is offered by Jencks, for whom early postmodernism at that time still remains a diffuse series of trends, to take shape initially as an architectural movement only in the mid-1970s. We may compare this view to Huyssen's observation that the term ''postmodernism'' appeared in north American literary criticism in the late 1950s (there are some earlier uses of the term — Rose 1992) and was first used emphatically in the 1960s, but was propagated only from the early and mid-1970s in reference, first, to architecture and later to dance, theater, painting, cinema, and music (see Jencks 1992: 23–24, 26; Huyssen 1988: 61, 161, 183–184, 188–189, 190, 195).

The very term postmodern presupposes the modern, which, as is the case with the postmodern, is attached to an historical period, modernity. According to the current view, modernity corresponds to a specific type of society, a type which first appeared in Europe during the seventeenth century (or somewhat earlier according to certain authors). The modern conception of the world, however, was formed in the second half of the seventeenth and the first half of the eighteenth centuries, and in philosophy the mark of its beginning is Descartes. A landmark in the development of modern thought was the intellectual movement of the Enlightenment, with its supreme valorization of reason, knowledge, and science, which first appeared in France in the late eighteenth century. After the

integration of the processes shaping modern society, this social formation was widely diffused starting in the mid-nineteenth century (Bauman 1992: 3, 187; Hollinger 1994: 2, 21, 26; Deely 2001: for example, xxxi, 449, 539, 585; Huyssen 1988: 182–183, 216). Michel Foucault, thus, finds that the feeling we have of a continuity of knowledge from the Renaissance on is only due to appearances. The *épistémè* of the period defined above as modernity is, for him, characterized by two major discontinuities: the first opens the classical period around the mid-seventeenth century, while the second marks the beginning of modernity entering the nineteenth century (Foucault 1966: 13–15, 229, 315).

Though I myself would argue that there are continuities in history in respect to the realm of knowledge, nevertheless Foucault's concept of discontinuity warns us against the dangers of linear long-term history. Foucault's *Épistémè* (which was subsequently replaced by the concept of "discursive formation") is an historically delimited, unconscious epistemological system, including its preconditions of knowledge, i.e., the rules of its construction (Foucault 1966: 11–14, 170–171). What this concept reminds us is that, quite apart from possible continuities, the domain of knowledge in each historical period presents a homogeneity as a whole, and is not the sum of some previous and some new knowledge.

Seen in this light, histories of different fields of culture, such as art histories or histories of philosophy, treating their object through the centuries with a "diffusionist" rationale, i.e., based on the idea of influence (for art history, see Preziosi 1989: xiv, 51) are at best partial and structurally unable to grasp a whole in its historicity. Diffusionism is now an obsolete approach in archaeology, as well as in anthropology, where the cultural-historical school once focused on the diffusion of cultural influences and thus on cultural invariants. Linearity in history gets even more troubling when it is paralleled by a metaphysical Hegelian teleology, the conception of a more or less continuous progress of ideas, culminating with a certain school of thought. Progress there may be, in certain cases, but it is not due to the fact that, from the first appearance of an idea, humanity has concentrated on how to improve it. On the contrary, an idea is further elaborated only on condition that it *has meaning* for a *new* historical situation, which actually defines its meaning — a point on which I would agree with the phenomenologists. The history of ideas does not develop between historical periods, i.e., from one *épistémè* to another, on *a priori* grounds, with the implicit or explicit *telos* of further elaboration and sophistication; or, to put it otherwise, ideas do not wait around in history to be developed by coming generations due to some kind of intrinsic value; on the contrary, the history of ideas is founded on our *a posteriori* interest in previous achievements. Thus, postmodernism cannot be

seen as some kind of historical culmination, but as a *new* condition, which deserves our attention for its own sake, without of course excluding the possibility of integrating earlier elements. If postmodernism is or is not a new *épistémè* is an issue I shall discuss below.

What remains unaccounted for by Foucault's approach are the *causes* — and here I distance myself from the reluctance of phenomenology to deal with this factor — of the emergence and disappearance of a specific *épistémè*. This is a serious lack, because, without such an explanation we are left with two options equally unsatisfactory: either the *épistémè* changes "from below," by an unaccountable human caprice, or it is changed "from above" by a superior metaphysical power of some kind. That the realm of ideas is unable by itself to provide an explanation for its development is clear, both in traditional history and in the postmodern accounts of postmodern culture, where a non-tautological relation is established between ideas and historical periods defined in more material terms.

It seems to me that the bibliography on postmodernism, without exception, implicitly or explicitly relates the postmodern in its different aspects to capitalism. On a closer look, the realm of *épistémè* has always been related to material conditions, and not simply that, but it has also in principle been explained by them. Focusing on the Western history from the Renaissance, the turn of ideology towards antiquity coincides with a set of quite new socioeconomic conditions. Feudalism, in its formative stage during the tenth century, reached its apogee from the mid-twelfth century to the beginning of the fourteenth. However, during this and the next century, a general crisis broke out in feudal societies, because the feudal regime was unable to face the new needs for economic development. An early reaction to this crisis was the multitude of technological inventions of the fifteenth century. From this century, even from the end of the previous century, starts the decline of feudalism, which continues up to the end of the eighteenth century — around the middle of which began in England the so-called Industrial Revolution — when the new class of the bourgeoisie brought the previous socioeconomic regime to an end. This period, the first stage of which was formed between about the mid-fifteenth and the mid-sixteenth century, is the era of the primitive accumulation of capital, to be replaced by mercantile capital, a new form that made its appearance during the seventeenth century (Parain 1974: 24–26, 29–30; Vilar 1974: 38–40, 43–46; Godelier 1973: 46–47).

The historical changes discussed above are paralleled by the processes leading to the nation-state. According to Benedict Anderson, the development of print-as-commodity or "print-capitalism," as he calls it, led to the creation of a new kind of commodities, on the basis of which the

nation-states were established. "Print-capitalism" saw an explosion in the first half of the sixteenth century. When the market of readers of Latin was saturated, about 150 years after the appearance of printing, the printers turned around the mid-seventeenth century to the vernacular languages. It is during the same century that we witness in Western Europe the beginning of the slow decline of the automatic legitimacy of sacred monarchy. Anderson argues that the articulation of print technology and "capitalism" with the vernacular languages led to a new form of imagined community. The print vernacular languages, by contributing to the creation of these communities, were foundational for the emergence of national consciousness and thus the nation-state. The nation-state, the idea of which was in line with the principles of the Enlightenment, was first constituted in the Americas between 1776 and 1838, and this form offered the first model for this new political entity. There followed what Anderson calls "second generation" nationalist movements in Europe, in the period between 1815 and 1850. Already in mid-nineteenth-century Europe there is an obvious development in the expenditures of the state and the size of its bureaucracy and military force. Against the background of the industrial capitalism of the twentieth century, immediately after World War I, the nation-state became the legitimate international political norm, to reach its peak after the next War (Anderson 1991: for example, 7, 21, 37–38, 44, 46–47, 76, 113, 115, 194–195). This apogee did not last long. Starting as early as the first half of the 1970s the nation-state passed into a period of crisis — economic crisis, but also crises of power and legitimation — which continues to our days and has led to increasing restrictions on its autonomy, through the ceding of crucial areas of social management and control to a fragmented market (see also Barker 2000: 178–179).

In his scholarly and impressive book on the historical course of sign philosophy, John Deely divides this course into four periods: the preliminaries to the concept of sign formulated by ancient Greek philosophy, which correspond to the period from the pre-Socratics of the sixth century BC to the end of the western Roman Empire in the fifth century AD; the development of this concept during the "Latin" period from Augustine in the fourth century to Poinsot in the seventeenth, with a special emphasis on the last three centuries or so of this period starting with Ockham (a period, however, which conflates the Middle Ages with the Renaissance); the oblivion of the concept in modern philosophy from Descartes on; and the recovery and advance of it, opposing the modern approach, pioneered by Charles Sanders Peirce from the beginning of the second half of the nineteenth century. Deely observes that these major philosophical changes correspond to major linguistic changes in the West, given

that during the first period Greek was the dominant intellectual language; during the second, Latin was dominant; in the third, from the seventeenth century, the European vernacular languages displaced Latin; and in the fourth these divisions are in the way of being overcome (which seems to me an anachronism if applied to the turn from the nineteenth to the twentieth century), due to a new global perspective offered by a new epistemological paradigm based especially on the work of Peirce (Deely 2001: xxx–xxxii, 210–211, 694, 738).

If we focus on the seventeenth century, the beginning of modernity in the wide sense, Deely's observation concerning the relation between the rise of vernacular languages and modern philosophy remains unaccounted for, due to the lack of the wider societal framework. On the contrary, Anderson's sociologically oriented account of the emergence of these languages relates this phenomenon both to its social causes, that is, "capitalism" and more specifically "print-capitalism," and to its ideological and institutional (i.e., political) long-term effects, namely national consciousness (part of the realm of ideas) and the creation of the nation-state. Although this view may not be complete, his approach has the merit of anchoring ideas in the social reality that gave birth to them. I believe that this kind of history, the "vertical" anchoring of ideas in their social material foundation, as opposed to the "horizontal," linear account of them, is able to understand the formation of ideas as a product of their times, i.e., as an historical product.

Coming back to the abridged macro-historical diagram I outlined above, we can detect a tight relation between the socioeconomic realities of Western societies, the periodization into eras, political formations and the realm of ideas. After the formative stage of feudalism in the tenth century, this social system suffers a general crisis starting in the fourteenth century, the response to which was a new form of economy, the primitive accumulation of capital. The first stage of this new economic formation extends from the mid-fifteenth to the mid-sixteenth century, which is the central part of the Renaissance and the period that saw the explosion of print capitalism. About half a century later, the automatic legitimacy of monarchy starts to decline, mercantile capital makes its appearance, and the modern period opens. The propagation of vernacular languages from the mid-seventeenth century, related to the economy of print technology, coincides with the rise of the modern worldview and Foucault's classical *épistémè*. Towards the end of the eighteenth century, we witness the dawn of the complex of nationalism and the nation-state, to which contributed the legitimization of vernacular languages, the shaping of Enlightenment thought, and the rise to power of the bourgeois class, which brought an end to feudal society. Foucault's modern *épistémè* emerges immediately

after these developments, as we enter the nineteenth century. The diffusion of modernity from the mid-nineteenth century, this time modernity in the strict sense, is a phenomenon parallel to the growing power of the newly formed nation-states and is closely linked to industrial capitalism (on this last point, see Huyssen 1988: 217).

I already noted the divergence of views on the appearance of postmodernism in respect to the period from the end of World War II to the 1970s. This is the period of the peak of the nation-state. During the early 1970s, a general economic crisis broke out in the capitalist countries which resulted in extensive de-industrialization. When Henry Ford started a revolution in industrial production with his new method of the assembly line, he set the mainstream model of capitalist efficiency and productivity, a model based on the standardization of the labor process and of the products or their parts, and aiming at mass production. It is this Fordist regime of capitalism that began to experience problems which came to a peak in the early 1970s, marked by the oil crisis of 1972. In this condition of saturated Western markets and a crisis of overproduction, the capital in the advanced capitalist economies responded with the creation of a new regime, flexible accumulation, which was achieved through more flexible production techniques, presupposing the use of innovative technologies and the reorganization of labor, and the acceleration of the production-consumption turnover time. A relatively small number of transnational corporations is at the heart of this new regime and leads the processes of economic globalization (see also Barker 2000: 158–159, 168–169). These processes are followed by those of cultural globalization, which, together with its cause, late capitalism, lays the substratum for postmodern culture and postmodern theorizing.

According to some authors, postmodernism represents a radically new paradigm. Such a view seems to be supported by Zygmunt Bauman. For Bauman, there is a trend in contemporary sociology for which the society of postmodernity is just another type in a continuing modernity. Bauman, however, feels that postmodern society represents a radical break, so radical that it necessitates the abandonment of the theoretical sociological model of the modern, ``classical'' industrial society of capitalism. Postmodern society is, for him, a systemic transformation of the previous society, and a societal type in its own right and with its own logic, not just modern society in crisis. Bauman refers to the crisis theorists and their view that the continuity between modern and postmodern society is based on the continuity of the primacy of the productive function. According to him, even these theorists find that there is in fact a shrinking of the productive activities, which has a grave impact on society, but they believe that the fact that institutions and patterns previously operative are dys-

or non-functional today results in a crisis which takes the form of disorganized capitalism, that is, a modernity in crisis.

Bauman disagrees with this conceptualization. His position is that postmodern society is no longer organized around the productive function, but is founded on the individuals in the consumer market. After having secured the sphere of production, capitalism has now turned towards the distributive sphere, that of consumption, offering to the consumer the pleasure principle. Thus, postmodern culture is a surface symptom of a much deeper social transformation, which may have been brought about by modern society, but is ''in a number of vital respects'' discontinuous with it. As we can see, Bauman stresses the, in his view, profound differences between postmodern and modern society, which, he believes, call for a new rational sociology of postmodernity, as opposed to a postmodern sociology in the form of an intellectual genre in harmony with postmodern culture. Nonetheless, he sees postmodernity ''as fully developed modernity,'' a ''modernity conscious of its true nature,'' a view that brings out an ambivalence in his position, or at least that offers a milder formulation than that of radical break (Bauman 1992: 42–53, 64–65, 187–188, 223).

Approaches of this kind are challenged, for example by Fredric Jameson, who, departing from Ernest Mandel (who dates the fourth ''long period'' of capitalism, ''late capitalism,'' from the 1940s — Mandel 1978 [1972]: 8, 120–121), holds that postmodern society is not a completely new type of social formation, the alleged ''postindustrial'' society, but just a new, ''purer,'' stage of capitalism. According to Jameson, postmodernism is not an independent cultural formation, but a ''cultural dominant,'' with a function in relation to the economic system of this late capitalism different from the function of modern culture in the previous stage of capitalism. Jameson also argues that, in spite of the postmodern assumption of the autonomization of culture, late capitalism has in fact abolished the previous relative autonomy of culture, with culture now becoming inseparable from all aspects of society. The integration of culture within the new development of capitalism turns postmodern culture into the cultural logic of late capitalism (Jameson 1984: 55–58, 87).

This position is exemplified by David Harvey, who, as a human geographer, is interested in the spatial behavior of capital. Harvey observes that there have been in capitalism crises due to the overaccumulation of capital and that the first crisis occurred in the mid-nineteenth century — the beginning of modernity in the strict sense. These crises caused a search for new spatial and temporal resolutions, leading to an upset in the organization of social life and a strong sense of time-space compression, that is, the sense of the shrinking of world space and the shortening

of time horizons to the present time, which has been expressed both in philosophy and in cultural and more specifically artistic movements. The last crisis of overaccumulation, which started in the late 1960s and reached a peak in 1972, opened the period of postmodernity, which is an historical-geographical condition of a certain sort inside a continuing capitalism, linked to flexible accumulation and characterized by the emergence of new cultural forms. Postmodern culture is the result of the extension of the market over cultural production as a whole, whence the need for a political economy of cultural production. For Harvey, who once more agrees with Jameson on this point, the understanding of postmodernity as a material historical condition is deflected by postmodern discourse itself, which is trapped in the idea of the autonomization of culture.

On the semiotic level, Harvey argues that "images" — belonging to the realm of cultural signs — have been transformed into commodities, a view close to Jean Baudrillard's view, but he disagrees with the latter's overall position that Marx's analysis of commodity production should be replaced, due to the shift of capitalism from the production of commodities to the production of signs — whence Baudrillard's political economy of signs or theory of symbolic exchange (Baudrillard 1972: for example, 152–153, 172–179). Harvey observes that competition between firms in image-building and the creation of positive connotations for their products is a crucial part of economic competition, this is why investments in ephemeral images, which establish an identity in the market, become of prime importance. In this manner, commodities have become the principal vehicles of cultural codes (Harvey 1989: for example, vii, 62, 239–240, 259, 284–288, 298–299, 305–307, 327–328).

In spite of the divergence of opinions concerning the degree of socio-economic discontinuity between modern and postmodern society, no view goes so far as to suggest any kind of "post-capitalist" society. Authors agree that the common link is capitalism, and the different evaluations concern the degree of novelty in recent society. However, the historical analysis of capitalism shows that the development of capitalism since the nineteenth century proceeded through a series of leaps, representing new organizational forms of it as adaptations to the changing conditions of its environment. Each new phase of it *could be felt* as a totally new situation, but in reality represented, notwithstanding the differences, the evolution of one and the same system. Modernity is extending within postmodernity, which should be considered as a "neo-modernity," and, given the tight relation between periods and their cultural profiles, we should expect that the same penetration holds for postmodern culture and postmodern theorizing, without of course losing sight of the factor of novelty.

Many scholars do recognize this connection, as Margaret Rose (1992: 127) reminds us when she observes that for certain authors postmodernism does not imply a complete break with modernism. As in the case of the relation between modern and postmodern society, however, there are different evaluations concerning the exact nature of the relation between their respective cultural formations, these two kinds of relation being, *mutatis mutandis*, homologous. This issue is discussed in detail by Huyssen and his analysis helps clarify the terms of the controversy. There are views posing a radical break, and at the other extreme views supporting direct continuity (see also Hutcheon 1988: 49–51).

Huyssen questions this black-and-white polarization and opts for the grey in-between zone, a grey, however, tending towards the pole of discontinuity. If Harvey refers to socioeconomic crises, Huyssen addresses a comparable phenomenon on the cultural level. Huyssen concentrates on the contemporary arts, rather than postmodern theorizing. He considers that today's arts do not represent just another stage in the sequence of avant-gardist modernist movements, which for him cover the period from the mid-nineteenth century, when they originated in Paris, into the 1960s; thus, postmodernism is not just the latest form of the successive revolts of modernism against itself, because it differs from both modernism and avant-gardism. Postmodernism operates, for him, within a field of tension between oppositions which were central to the theoretical approach of modernism, such as tradition versus innovation, mass culture versus high art, representation versus abstraction. It is not just the result of another crisis in the cycle of exhaustion and renewal of modernist culture, but follows from a new type of crisis, this time in late capitalism and of the very modernist culture itself and the relation of art to society; a crisis which broke out when the historical limits of modernism became clear in the 1970s, immediately after the end of the tradition of avant-gardism in the 1960s. On the other hand, postmodernism does not invalidate modernism, but only rejects its dogmatic aspects, and, by appropriating many of its aesthetics strategies and techniques, integrates them within new forms (Huyssen 1988: 161, 164, 182–183, 216–218).

This position, moving in the in-between zone and towards the discontinuity pole, is comparable to the position of Bauman concerning the political economy of postmodern society, while Harvey's position moves towards the continuity pole. I believe I have made it clear above that my own view is sympathetic to the latter position. But the central issue of my text is not postmodernity and postmodern culture in general, but postmodern theorizing and its historical genealogy. The beginning of that genealogy is the work of Ferdinand de Saussure, to which I shall now turn.

2. Structuralism and semiotics: The positivist orientation

The lives of the two persons who are considered as the cornerstones of the contemporary theory of signs coincide more or less with the first half-century of modernity: Charles Sanders Peirce lived from 1839 to 1914, and Ferdinand de Saussure between 1857 and 1913. I shall concentrate, to begin with, on the latter, given that — and this will be my argument below — the historical line culminating in postmodern theorizing has him as its starting point. I shall then recall in this section certain major ideas of his heirs, structuralism and French semiotics, which, together with the discussion of Saussure, will hopefully offer the link with the phenomenon known as poststructuralism.

It is well known that the fundamental concept of Saussure's structural linguistics is that of *langue*. Crucial for the definition of this concept is another concept, that of point of view. Saussure observes that other sciences than linguistics operate with a given object, which may then be considered from different points of view. However, in linguistics the object is not given, but rather created by the point of view. According to Saussure, the strategic point of view in respect to linguistic phenomena defines the object of linguistics as *langue*, which may be an abstraction, but is nevertheless the norm for the study of all other linguistic phenomena. In order to determine the field of *langue*, Saussure starts from the circuit of *parole* (the use of *langue*) in its elementary form of a communication between two individuals. It is through this circuit that he locates the concepts which later in his development were called *signified* and *signifier*, as well as the concept corresponding to their indissoluble union, the *sign*. Together with this unit of signification he posits from the beginning one major faculty, manifested beyond the individual sign: the faculty of association and coordination. Words having something in common are associated in memory outside discourse, and thus this relation is *in absentia* (the relation that was later called by Louis Hjelmslev paradigmatic), while in discourse they are gathered, due to the linear character of *parole*, into combinations called syntagms, a relation that is *in praesentia*.

Before and above these relations, there is a "first principle" ruling natural *langue* and indeed any system of signs, and which thus marks all of semiology. This principle is the arbitrariness of the sign, i.e., the arbitrariness, the non-motivation, the conventionality of the relation between signifier and signified. It is implied by Saussure that the same principle holds also for the relation between ideas and things in the world. In fact, he disagrees with the view that *langue* consists of a naming process, because such a view presupposes independent ideas existing before the words, as well as with that of a simple relation between a word and a thing, which

is, for him, anything but true. Thought is amorphous outside its expression in words; equally, the phonic substance is just a plastic substance, destined to supply signifiers to thought. The function of *langue* is to mediate between these two orders in such a manner that by uniting them it constitutes itself; the two orders are indissolubly related in *langue* and the result of their combination is the delimination of its units, the signs.

The arbitrariness of the sign is closely related by Saussure to the concept of *value*. While the signified is positively defined as a content corresponding to a signifier, value is negatively defined as the relations between (each plane of) a sign and the other signs of *langue*. Thus, value is purely differential in nature, a quality which is correlative with arbitrariness, and *langue* consists only of differences. Value is a hierarchically superior concept to that of signified, because signification cannot exist without it. Value, as a relational concept, shows, for Saussure, the solidarity between the terms of *langue*, which is a *system*, indeed a *social* system consisting of signs or, better, of pure values. This system is a state of *langue* existing in synchrony and studied by static or synchronic linguistics, as opposed to diachronic linguistics, which studies relations in time between individual successive terms, of which the one replaces the other (see Mauro 1972 [1967]: for example, 23–33, 97–101, 116–117, 141–143, 154–163, 166, 170–175, 192).

These major linguistic concepts of Saussure can be generalized to all semiotic systems, according to Oswald Ducrot and Jean-Marie Schaeffer (1995: 12). The relation between linguistics and the general theory of signs was conceptualized by Saussure in a specific manner: linguistics would only be a part of the general science-to-be of *sémiologie* (Mauro 1972: 33).

Saussure's structural linguistics was highly influential internationally, though it was not above criticism. For example, it was greeted by both positive and negative reactions in Russia; the negative critique concerned particularly its relation to bourgeois ideology, its formalism, the subjectivism of the concept of *langue*, and the lack of historical perspective in the separation between synchrony and diachrony (Mauro 1972: 370–371).

More recently, Raymond Williams has also been strongly critical of the concept of the linguistic system, which he considers as inscribed within an objectivist, positivist conception (by which he means the objectification or reification of an object of inquiry). For Williams, through the priority of the synchronic over the diachronic dimension, the language system as a system of signs is isolated from the active participation of people in its formation and from history; thus, the system becomes inaccessible, is considered as autonomous, given and stable, and individuals are limited to acting out its laws. The relational and formal aspect of the system must,

according to Williams, acquire a dynamic dimension in the form of the social dynamics of the system. Signification, although it relies on formal signs, is in fact a social creation of meaning, a means of production, and a practical material activity (a view that I personally fully subscribe to — see Lagopoulos 2004b: 29–33). However, in spite of his critical Marxist stance, Williams considers Saussurean linguistics as a profound, productive, and greatly influential theoretical development, and structuralism and semiotics as powerful approaches (Williams 1977: 27–28, 34–44).

Other comparable criticisms of Saussure have come from inside semiotics. Thus, for example, Roman Jakobson shifted his interest from *langue* to communication. He tries to overcome Saussure's dichotomies, first that between *langue* and *parole*, considering these terms as structurally and functionally interdependent, indeed in all semiotic systems; then, between synchrony and diachrony, using the concept of dynamic synchrony; lastly, between internal and external linguistics (to which I shall return below), arguing that anything relevant to a semiotic structure is internal to it. In 1959, Jakobson criticized the principle of arbitrariness as too absolute, but, in my opinion, he did not propose an elaborated theoretical framework in respect to this or to his previous views (for the above, see Rudy and Waugh 1998: 2258, 2260, 2262).

Before he moved to Prague in the early 1920s, Jakobson was involved with Russian Formalism (1914–1934). Russian Formalism evolved through three stages, and the orientation of the last stage is closely related to Jakobson's main themes as presented above. The interest of the Formalists at this stage was focused on the relation of a text to its environment, and this relation was conceived in two ways. The first is the insertion of the text into systems including it: successively, the larger system of genre, and the cultural system as a whole, considered to be the "system of systems." Related to this perspective is the relation of a text with another text, that is, what we call intertextuality. The cultural system as conceived by the Formalists reserves a place for mass literature, and is studied against the general cultural background of a period, namely its taste or the "horizon" of the collective "native" reader. The second kind of relation between text and environment is founded on the communication circuit and focuses on the communication space between author or text and reader. This space includes a wide set of mediations, such as the behavior of economic agencies, literary institutions and circles, and public opinion (Sebeok 1994: "Russian Formalism").

Also critical of the Saussurean concept of the linguistic system are Algirdas Julien Greimas and Joseph Courtés. They consider that this concept is too limited, because it excludes the semiotic process and thus signifying practices. Strict adherence to it constrains semiotics to be a dis-

cipline annexed to linguistics, something which has led to poor results. The importance of the Saussurean approach lies in his general semiotic theory, for which he formulated the fundamental premises. The authors state that French semiotics was shaped by this approach, and more specifically in the form given to it by the work of Hjelmslev (Greimas and Courtés 1979: "Sémiologie").

A philosophical critique of Saussure comes from Deely, who, while acknowledging the importance of his work, disagrees with him on a number of crucial points. Deely considers as unfortunate the restriction of the sign to the domain of the conventional and the arbitrary, in which the linkage between a signified and a signifier is "unmotivated by any natural connection," because he believes, following Peirce that the concept of the sign must also cover, beyond culture, the world of nature, where natural signs are connected to a mind-independent or intrinsic motivation. He also relates Saussure's conception of the linguistic sign to the modern(ist) idealist view that the mind has access only to itself, and he generalizes this attitude to the whole of French *sémiologie*, which he thus classifies as nominalist. Because of this, the knowledge of nature is excluded from the "ultramodern" Saussurean theory of signs, which is thus limited to only a general theory of cultural phenomena, and Saussure failed to orient his deepened understanding of the linguistic system towards a general theory of signs (Deely 2001: see for example, 669–670, 676–678, 683–686, 689).

Though I personally feel that most of the above critiques of Saussure are sound (the non-arbitrariness of the sign excepted, but this is an issue going beyond the scope of this text), they are only partly valid, as also seen from the general acknowledgment of the importance and the tremendous impact of his work. To start with the concept of the *langue*-system, it is not, as we know, isolated, because it is inseparable from its twin concept of *parole*, i.e., the (according to Saussure's too narrow understanding, individual) use of *langue*. Admittedly, Saussure detaches the study of *parole* from that of *langue*, and attributes to the latter a primary position in linguistics, to which *parole* is subordinated. However, he points out that the study of *langue* (i.e., synchronic and diachronic linguistics) and the study of *parole* (i.e., the linguistics of *parole* that Saussure postulated but never elaborated) depend on one another (Roland Barthes, following Saussure, speaks of a genuine dialectical relationship — Barthes 1964b: 94); he also specified that *parole precedes langue* historically, and *causes* its evolution and diachronic change (see Mauro 1972: 25, 30–31, 36–37, 138, 197 note 1). Thus, the decision to foreground *langue* was for Saussure a strategic decision, in my view necessary but partial, taken against a *holistic* background which included process and the dynamic dimension.

Then comes the issue of idealism, on which the critiques in Soviet Russia and that of Deely converge. That Saussure is not *a priori* an idealist is seen empirically from his "external" linguistics (as distinguished from the three "internal" linguistics referred to above), which studies the articulation of *langue* with material social phenomena external to it, such as the history of civilization, political history, and geographical distribution — to which he adds phenomena that are semiotic or have a marked semiotic aspect, such as custom, the Church, the school, and internal policy (see Mauro 1972: 40–41). But let me now come to the theoretical argument. When Saussure defines the function of *langue* as a mediation between amorphous thought (what Hjelmslev called the substance of the content) and the equally amorphous phonic substance (Hjelmslev's substance of the expression), he observes, using the metaphor of the two sides of a sheet of paper, that it is not possible to separate thought and sound, and that this division can only be accomplished abstractly, in which case the result would be to fall into psychology or pure phonology (see phonetics).

It is clear that for Saussure this conception of language aims at defining a scientific object for linguistics, and follows from the adoption of a specific point of view on language as a whole. This epistemological position was further elaborated by Hjelmslev, cofounder of the Linguistic Circle of Copenhagen, when he states that a theory must be based only on the premises which are necessary for its object, and that the results of the application of a theory must agree with the empirical data; this requirement of empiricism is satisfied by the "empirical principle," consisting of three conditions which rule scientific description and are, in order of importance, self-consistency (a contradiction-free description), exhaustiveness, and (the greatest possible) simplicity (Hjelmslev 1961 [1943]: 10–11).

Taking this definition by Hjelmslev as their starting point, Greimas and Courtés define the rule of scientific description, the latter term denoting the procedures, that is, the sequence of ordered operations or the activity of creating a descriptive metalanguage, which satisfy the criterion of "scientificity" and aim at exhausting the description of a semiotic object. The rule prescribes that we must take into account, among the different determinations of an object, only those that are necessary and sufficient in order to analyze it in depth. This is the rule of relevance (pertinence); less rigorously, for Greimas and Courtés it is the normative rule adopted by the semiotician according to which the selected object must be described from only one point of view, thus retaining only the traits of interest to the latter, which in the case of semiotics is signification (Greimas and Courtés 1979: "Définition," "Description," "Opération," "Pertinence," "Procédure"). The same rule is adopted by André Martinet, who observes that every description presupposes a selection, because every object

may present an infinite complexity, while a description is necessarily finite, that is, can only address certain traits of the object. The coherency of a description demands the adoption of a specific point of view, on the basis of which the pertinent traits are retained and the non-pertinent rejected (Martinet 1970: 31–32).

It is this same rule of relevance on which the semiotics of Umberto Eco is founded. According to Eco, all social phenomena (that he rather unsuccessfully groups under the term of "culture," instead of the wider term of "society") can and must be studied from a semiotic point of view. This is why semiotics is a general theory of culture and finally a substitute for cultural anthropology. Eco points out that social phenomena as a whole are not reducible to communication, i.e., to the domain of semiotics, and to study them in this manner does not imply that material life can be reduced to spirit and pure mental facts, which would lead to idealism; in fact, this is what happens with semiotic imperialism. He considers it of central importance, however, to approach social phenomena "*sub specie communicationis*," that is, through the adoption of the point of view of meaning (Eco 1972 [1968]: 25–30 and 1976: 6–7, 26–27, 158). Thus, according to Eco's epistemological position, for example, physical anthropology as a scientific field would not fall within the domain of semiotics, as Deely (2001: 714–715) would like, except if seen *sub specie communicationis*.

I believe that we can now better understand the epistemological nature of *langue*. Saussure's concept of *langue* is related to a reaction against the theory of language as a naming process. As we saw, the aim of Saussure was to offer linguistics a scientific object, and he defined the latter using the rule of relevance. In so doing, he delimited a field within the domain of signification, which he attributed to linguistics, without forgetting the existence of material social phenomena, as witnessed from his external linguistics. There is, however, a problem with *langue*, the product of Saussure's legitimate scientific procedure, because it is connected to the concept of the arbitrariness between signs and the world, which is what leads to the suspicion of idealism. I should like to recall here that, for Saussure, arbitrariness is not a monolithic concept. There are different degrees of arbitrariness; the relation between signifier and signified may be absolutely arbitrary, i.e., unmotivated, or relatively arbitrary, i.e., relatively unmotivated; the relative motivation of the sign follows from a certain *natural* bond between signifier and signified (Mauro 1972: 100–102, 180–183). However, we must admit that the problem of the relationship between a system of values and the knowledge of reality remains unanswered by Saussure. This is a philosophical issue beyond and outside Saussure's scientific intentions, but nevertheless, it shows that Saussure's

langue, as defined from a specific point of view that isolates it as if it were an *autonomous* entity, is marked by a *tendency* towards idealism. Of course, pure idealism would be to extrapolate from *langue* to the whole of linguistics, something that Saussure does not do.

A very interesting sociological explanation of the impressive diffusion of Saussure's theory in the West is offered by Roy Harris. Referring to the period after World War I, Harris argues that the concept of *langue* responded well to the post-war anxieties of a socially, politically, and economically unstable West. Saussure's synchronic linguistics was at that time a suitable tool for challenging preexisting values, forgetting the past, and creating contemporary values. Thus, it is reasonable, according to Harris, that Western societies were ready, not only to adopt this concept, but also to extrapolate it from linguistics to all discussion concerning the individual and society (Harris 2001: 194–196, 200, 205).

I have already referred to Jakobson's attempt to overcome the dichotomies of langue versus parole and synchrony versus diachrony. These positions, together with the concept of abstract structure, defined not by elements but relationships, and a special emphasis on the phonological study of *langue* and phonemic oppositions developed by Nikolaj Trubetzkoy, are main issues included in the *Theses* (1929) of the Prague Circle. The interests of the Prague Circle extended to literature, the arts and other semiotic systems. Shortly after World War II, Jan Mukařovský, coauthor of the *Theses*, approached culture as a "system of systems," composed of a dynamic hierarchy between the interrelated systems of the different cultural fields. This view, also held by the Formalists, has been foundational for the semiotics of culture as a complex semiotic system elaborated beginning in 1960 by the Moscow-Tartu School. One of the main contributors to the *Theses* was Jakobson, and the text itself marks the constitution of European structuralism proper (Winner 1998). It is from this tradition and with the mediation of Jakobson himself (in the period 1941–1946) that the approach of Saussure reached Claude Lévi-Strauss. This author, with the inspiration of structural linguistics, conceived of structural anthropology, which was destined to mark all the line of development from semiotics, through so-called poststructuralism, to so-called postmodernism.

Lévi-Strauss's model for his structural anthropology is Jakobson's and Trubetzkoy's structural phonology. For Jakobson, phonemes are defined by the oppositions between them, and the articulatory or acoustical traits by which these oppositions are described constitute their distinctive features. The latter are presented in the form of binary oppositions, are limited in number and are organized according to a universal matrix, from which it is supposed that each existing language borrows the elements of

its phonological system. This model, which may be contrasted to the historically sensitive view that comparable phonemes in different languages do not coincide, with the result that phonological systems differ and phonology cannot be universal (see Ducrot and Schaeffer 1995: 390–391, 394–395), is exactly the model that founds structural anthropology.

Following Jakobson's and Trubetzkoy's views, Lévi-Strauss states that, just as in phonology, anthropology moves from conscious phenomena to their unconscious "infrastructure," focuses not on elements but on their relations, is concerned with structures, and formulates universal laws. Lévi-Strauss finds close parallels between kinship systems and phonological systems, although he believes that caution is needed against too literal a transfer from linguistics to anthropology.

Lévi-Strauss's conception of culture coincides both with the formalist and the structuralist definition of it as a system of systems. For him, society is composed of a set of interrelated planes, which are structured, i.e., are structures. He classifies them into two orders, drawing his inspiration from Marxism. There are "infrastructural," "lived" orders, such as the kinship system and social organization, which belong to an objective reality and can be studied from the outside and controlled experimentally, independently of the manner in which they are conceived by individuals; and there are also mental, "superstructural," "conceived" orders such as mythology, religion, art, and cooking, which do not partake directly of objective reality. The formal properties of the relationships between these planes, which are highly abstract, constitute the "order of orders" of a society (Lévi-Strauss 1958: 39–44, 48–49, 57, 95, 346–348, 363–366).

The concept of communication is present in Lévi-Strauss's work. He detects on this matter three major planes: communication of women between social groups, regulated by the rules of kinship and marriage; communication of goods and services, regulated by economic rules, and communication of messages, regulated by linguistic rules. However, this concept does not draw with it the theoretical apparatus that would transpose the focus from *langue* to *parole*. In so-called primitive societies Lévi-Strauss analyzed various "orders," such as the kinship system in general and more specifically totemism, mythology (in the context of which he worked on an extremely rich material from the Americas), and the culinary system, by using the same general theory and methodology, and having each time the same aim of defining human universals. These societies are for him ideal for the study, in its pure form, of the innate and unconscious primitive universal logic which founds symbolic thought. He is in search of a kind of semantic algebra, which takes the form of an algebraic matrix, including the oppositional pairs, their combinations, the structuring of these and more complex combinations, the transformations

from structure to structure, and finally the general structural laws, which according to him are few (Lévi-Strauss 1958: 28, 95–98, 224–225, 252–253, 326–327; Leach 1970: 35, 38, 50–53, 55–56, 66).

I note on this occasion that in a similar manner Noam Chomsky, who is acquainted with Saussure's theory, concludes that there are certain phonological, syntactic, and semantic "substantive universals," not in the sense that all of them occur in any particular language, but in the sense that every language draws on this preexisting stock. There would also exist "formal universals," that is, general principles determining the form of the rules of grammar and their mode of operation. These universals are determined by the highly specific *language faculty*, which is a biological characteristic of human beings. They constitute an inborn knowledge, related to the structure and function of the human brain. Chomsky believes that his generative grammar is crucial for the investigation of the predisposition and structure of the human mind, and of mental processes, just as Lévi-Strauss thinks to achieve the same aim with his structural anthropology. They provide an individual's intrinsic competence and preside over the structure of human language, the structure of an extended conception of the Saussurean *langue* (Chomsky 1964: 10–11, 23, 66–67; Lyons 1970: 83, 86–87, 99–100, 105–108).

Due to his approach to anthropology discussed above, Lévi-Strauss states that anthropology situates itself definitely on the plane of signification and becomes a *"science séméiologique."* The universal logic on which it is founded was suggested to him, as he confesses, from the convergence between Freudian psychoanalysis, geology and Marxism (to which we should of course add structural phonology), which offer, for him, the framework for the location of ethnography. Their meeting point is that they integrate empirical phenomena into rational thinking and reduce appearances to another (deeper) kind of reality, ending thus in a "superrationalism." In addition, the first two of these apply a conception of history which projects on time certain given properties, in opposition to the history of historians (Lévi-Strauss 1955: 57–62 and 1958: 399) — an issue to which I shall return below.

Lévi-Strauss's work is the cornerstone of French structuralism. It is from his structuralism that emerged in the late 1950s French *sémiologie*, in the context of which there was an early attempt to overcome the limitations imposed by linguistics (Greimas and Courtés 1979: "Structuralisme"). This is the case with Greimas, the founder of the Paris School of semiotics and direct successor of the Saussure-Hjelmslev line. Hjelmslev's general science of semiotics, glossematics, represents a tight systematization of Saussure's theory with the intention of creating an "algebra of language." Language is seen as a structured system defined by a net-

work of relations. Hjelmslev defines three consecutive approaches to language. According to the most abstract approach, *langue* is a "pure form," a "scheme," and is defined independently from its social realization and material manifestation; its linguistic units are not positive, but "arbitrarily named entities without natural designation," and are of a relational and negative nature. For the second approach, *langue* is a "material form," a "norm," and is defined by a social realization, but independently from the details of its manifestation; in this case, its units acquire positive attributes in addition to besides their oppositional ones. Finally, for the third approach, language is a "set of habits," a "usage," of a society and is defined by the observed manifestations, in which case its units are positive. Because Hjelmslev came to consider norm as artificial, he retained only *scheme* and *usage*, which he substitutes for Saussure's *langue* and *parole* (Hjelmslev 1961 [1943]: 16, 47, 79–80, 96–97, 105 and 1971 [1959]: 80–89).

After Greimas sent Lévi-Strauss a paper strictly adhering to his approach, Lévi-Strauss arranged his appointment as Professor at the Ecole Pratique des Hautes Études in Paris. In addition to the influence of Saussure and Hjelmslev, Greimas's work was influenced by the Prague Circle, Vladimir Propp, and Lévi-Strauss. Since the late 1940s, Greimas had maintained close contacts with Roland Barthes, and both belonged to a small circle, also including Jakobson, Lévi-Strauss, Jacques Lacan, and Maurice Merleau-Ponty, who met regularly for seven years (Hénault 1992: 99–101, 106–108, 111, 114). In the later period of his intellectual life, Barthes is considered a poststructuralist, but initially his semiotics was solidly anchored in structuralism (Culler 1983: 20, 78–90). He, like Greimas, follows the Saussure-Hjelmslev line, as is clear from his *Éléments de sémiologie* (1964a — see also Greimas and Courtés 1979: "Sémiologie"), the first handbook of semiotics, in which, besides the explicit references to Lévi-Strauss, many concepts he uses are identical with those used by the latter. In creating a semiotics of culture by analyzing and interconnecting different cultural (sub-)systems, Lévi-Strauss was admittedly helped by the object of his field, given that anthropology studies society in all its aspects, but such a holistic cultural semiotics was also sought by Barthes (for example, Barthes 1957), Greimas (for example, Greimas and Courtés 1979), and Eco (for example, 1972 [1968] and 1976).

We may understand from the above the impact of Lévi-Strauss's structuralism on the semiotic tradition to follow. Let me now pass to certain major themes of this structuralism that played a crucial role for the constitution of poststructuralist thought. Most of them are closely related to the concept of the universal matrix, and they are the following

(a similar discussion is found in Boklund-Lagopoulou et al. 2003: XXVI–XXVII):

a. I discussed briefly above the three major planes of communication according to Lévi-Strauss. He explicitly relates the communication of women to sociology, since it is a matter that concerns social structure, and the communication of goods and services to economics. He also postulates that there are differences between these three modes of communication, but they show similarities, because all three obey the same methodology, whence his conclusion that social anthropology, economics, and linguistics should be united in the future into a single science, that of communication. This science is manifestly no other than the one from which follows the scientific nature of anthropology, the *science séméiologique*.

   On many occasions in *Anthropologie structurale* (1958), Lévi-Strauss makes reference to Marxism or defines himself as a Marxist. But, contrary to the rigorous approach of the Bakhtin group(s), instead of explaining the semiotic through its anchoring in the material, he inversely integrates the material within the semiotic, since society and economy are turned into wholly semiotic phenomena. In this manner, he simultaneously reduces material phenomena to semiotic, leading to a "pansemiotism" (that is, Eco's semiotic imperialism), and presages Baudrillard's *Pour une critique de l' économie politique du signe* (1972), for whom also meaning as a system of communication presides over all social exchanges. It is from such a view that Eco keeps his distances with his *sub specie communicationis*, while also using in this latter context a Marxist prototype. Eco is not a Marxist, but a major approach to semiotics he proposes is inspired or at least influenced by Marxism. More specifically, Eco's "general semiotic theory" is divided into a "theory of codes," which is a semiotics of signification, and a "theory of sign production," which is a semiotics of communication. This second semiotics — which is partially approved by Deely (2001: 722) — is related to the Marxist semiotics of Ferruccio Rossi-Landi (1983 [1968]: for example, 35–36, 51, 53), since it is founded on the concept of semiotic labor; this concept leads Eco to the concept of the modes of sign production, leading in turn to the replacement of the typology of signs with a typology of the modes of sign production (Eco 1976: 3, 151–158). From Lévi-Strauss on, a reinterpretation of Marxism became a marked, explicit or implicit, feature of structuralism, poststructuralism and postmodernism. We only have to think of Barthes's critique of bourgeois ideology, of "the bourgeois Norm," which is for him "the capital

enemy'' (Barthes 1957: 7, 9, 236–244; see also Harris 2001: 136–137, 144, 145–146).

What was a tendency towards idealism with Saussure's *langue*, with Lévi-Strauss's *séméiologie* and universal matrix of the unconscious seems to have become pure idealism — an idealism combined with positivism and logical positivism. Scientifically it is indeed idealist, but philosophically Lévi-Strauss attempts to escape idealism and disagrees explicitly with the neo-Kantians. For him, nature has an objective existence and knowledge of its laws is possible, and the same is true of society. This view seems awkward, given that he also believes that the knowledge of reality is the result of its reorganization in the human mind, because it is structured through the human senses and these messages are integrated by the brain. But, against the background of his preferred triad of psychoanalysis, geology and Marxism, he concludes that thought is also an object of the real world: "Étant "de ce monde," elle participe de la même nature que lui," implying a structural isomorphism between the mental and the natural (and social) world, whence the possibility of knowing the latter by knowing the former (Lévi-Strauss 1967 [1947]: 520 and 1955: 58; Leach 1970: 25–26, 92–93). It does not, then, come as a surprise that Jean-Paul Sartre considers Lévi-Strauss's theory as "transcendental materialism" (see Lévi-Strauss 1962a: 326). Lévi-Strauss's argument concerning knowledge of the natural world could perhaps be considered valid if the structures of thought were innate and biologically regulated; but this is not the case, because they are the products of history. The fact is that poststructuralism, which from the Lévi-Straussian triad embraced mainly the couple of psychoanalysis and Marxism (the latter reduced to semiotic reinterpretations), turned away from the attempt to create any kind of bridge between knowledge and reality (one of Deely's major concerns) and enclosed itself within the mental and the semiotic.

b. Lévi-Strauss's universal unconscious matrix led him to a notion that became central among poststructuralists, the death of the subject. This is in certain respects comparable to the equally anti-humanist view of Louis Althusser that there is an apparatus, a structure, a system of theoretical production, which absolutely determines any individual knowledge — surely a view that also dissolves the subject — but the crucial difference with Lévi-Strauss is that this apparatus, composed of material and ideational factors, is entirely social and historical (Althusser and Balibar 1968: 47–48). Lévi-Strauss states that the aim of the social sciences is the dissolution of man, not in order to destroy the constituent parts of the phenomena under study,

but to study in greater depth their properties. We understand that this dissolution is due to a double regression, the first from the "I" of an individual to the "us" of humanity, and the second from "us" to biology/nature. This regression is parallel to the regression from each specific culture to the "us-matrix" and from the latter to nature. This continuous regression, which aims also to cover animal psychology, ends, for Lévi-Strauss, with the integration of life within its physico-chemical origins. It is a view that corresponds to the second part of the assessment of Paul Ricoeur that Lévi-Strauss is a "Kantian without a transcendental subject," an assessment with which Lévi-Strauss agreed (Lévi-Strauss 1962a: 326–328; Fages 1972: 103, 110).

c. According to Lévi-Strauss, the individual structures constitute a group of transformations, that is, a group of structures related to each other through a set of rules of transformation. Such a group is ruled by a structural law, which is also a structure. The synchronic order of orders of a society is a function of the groupings of structures. There is also a diachronic change of structures due to their conflict with chance events, which themselves are not structural, but diachronic change is structural and follows a rule of transformation. Exactly the same rules apply to diachronic change in time, and synchronic change in geographical space observed in the case of synchronic comparisons, with as a result that the synchronic structures are replicated by the diachronic structures. This view concerning the close interrelationship between synchronic and diachronic structures is in a way comparable to Jakobson's position against the dichotomy between synchrony and diachrony, a position that Lévi-Strauss explicitly endorses. At this point, Lévi-Strauss goes well beyond Saussure: while for the latter diachronic change concerns only isolated elements, Lévi-Strauss relates synchrony and diachrony on the systemic level, by using the idea of structural transformation. It seems to me clear, however, that in this manner, historical change loses its historicity, because history is frozen within an *a priori*, which is the a-temporal, an-historical, super-synchronic unconscious matrix (Lévi-Strauss 1958: 102–103, 240–241, 252–253, 306, 342; see also Leach 1970: 93–94; Fages 1972: 55).

Due to the fact that chance events may upset structures, there is, according to Lévi-Strauss, a constant struggle between history and system. For him, the study of these two conflicting domains is bridged with the non-arbitrary diachronic construction. That is, he believes that with the help of the latter we are in a position to make true, objective history. This history of the anthropologist refers, ac-

cording to him, to a "mechanical" time, which is reversible and non-cumulative, while the historian refers to a "statistical" time, which is not reversible and has a determinate orientation, the specificity of history consisting in the understanding of the relation between before and after.

According to Lévi-Strauss, this history of the historians is not objective. Process is not an analytical object and cannot be studied together with structure. It is simply the manner in which temporality is experienced by a subject belonging to a specific social group, and these experiences are the object of history. The historical fact is not given, it is constituted by abstraction, and this is equally true for its selection. This way of operating is used both by the historian and the historical agent, who face the danger of infinite regression by making this abstraction, and have to segment and choose. History is made possible because a certain group of events in a given period acquires approximately the same signification for a specific group. There are different experiences of process in respect to the French Revolution by different social groups and the corresponding histories are all equally true. A totalizing synthesis of them is impossible, while an acceptance of their equal validity would lead to the conclusion that the French Revolution as we know it did not take place. We have here a kind of forerunner of Baudrillard's view on the non-reality of the Gulf War and the comparable view concerning the Holocaust. And Lévi-Strauss concludes: "L'histoire n'est donc jamais l'histoire, mais l'histoire-pour," a position to which I shall return immediately below (Lévi-Strauss 1962a: 207, 212, 339–342, 1958: 314, and 1962b: 44–45).

d. Lévi-Strauss strongly opposes the idea of primitive thought. According to him, at bottom, the logic of mythical thought and that of Western positive thought are little different. There is a difference, however, which does not really lie in the quality of mental operations, but in the nature of the object to which these operations are applied. Thus, there are two opposed modes of scientific thought, which are a function of the two strategic levels from which the physical world is approached: the one approach, utterly concrete, adjusted to perception and imagination and very close to intuition, is focused on sensible qualities, while the other, utterly abstract and not so close to intuition, is focused on formal properties. The two modes of thought are not due to unequal stages of the development of the human mind and knowledge; they are equally valid, and the "savage" thought is logical and its logic is of the same nature with our own. Given this position, we understand why Lévi-Strauss believes that the idea of

progress cannot be considered as a universal category of human development, but only as a category of our own society when it reflects upon itself. Of course there has been, for Lévi-Strauss, progress in humanity's products (not in thought), which, however, has not been continuous and presents changes in its orientation, but ultimately the very concept of progress presupposes the focus on a specific kind of progress in a direction subjectively predetermined. As we may see, opposition to this major notion of the Enlightenment is not the privilege of postmodernism.

According to Lévi-Strauss, these are conclusions to be drawn from the true history made by the anthropologist. He believes that the other type of history, the historian's history, is by definition unable to conceive of the equality between Western culture and other cultures. His point of departure is the quotation cited above on the subjectivity of history and its nature as history-for, which is an answer to Sartre. Lévi-Strauss does not agree that the replacement of a history-for-me by a history-for-us solves the problem of historical objectivity, because ''us'' is just an extended ''me.'' He believes that the result of such a history is to attribute to the Papuans the metaphysical function of the Other, a perspective satisfying a philosophical appetite that turns into an intellectual cannibalism worse than the actual one. Ethnocentrism cannot accept as natural the diversity of cultures, but considers it as a monstrosity (Lévi-Strauss 1958: 254–255, 368, 1962a: 24, 32–33, 341, 355–357, and 1961: 19, 36, 38, 68). This same Other is the one who, according to Barthes (1957: 239–240), the petty-bourgeoisie is incapable of imagining or accepting in his/her own right.

3. Neostructuralism: The interpretative orientation

The connection between poststructuralism and (classical, orthodox) *sémiologie* is of such a nature, that we should replace the suffix ''post'' with ''neo.'' In order to substantiate this observation, it is useful to discuss briefly certain historical data, as well as the epistemological nature of this new current. The discussion follows closely the views of Manfred Frank. As we shall see, poststructuralism represents the rebel twin, the *enfant terrible*, of French structuralism and semiotics. The two currents were almost contemporaneous and geographically coincident, both originating in France and more specifically Paris. Poststructuralism is a term attributed *a posteriori* to the new current and it has, I believe, the ideological connotation of ''beyond'' and ''maturity.'' Frank criticizes the term

on another basis, because for him the prefix "post" does not imply any historically necessary connection to the other part of the term, which he believes is misleading. This is why he opts for "neostructuralism," though with some reservations, because this other prefix implies a direct continuity of a theory or a resumption, not necessarily linear, of a theory after a period of interruption or sclerosis. This is not literally the case; however, according to Frank, although there may be no direct continuity, there is a direct and internal relation between neostructuralism and "classical" structuralism. It is in this sense that I would agree with Jonathan Culler's (1983: 78) remark that: "Much of what was heralded as "post-structuralist" was in fact already conscpicuous in structuralist writings."

There is a slight historical discrepancy between the two currents. Neostructuralism took shape about twenty years after Lévi-Strauss's structural anthropology, some time before the events of May 1968, and, for Frank, this historical reference shows that neostructuralism was formed as an opposition to mainstream philosophy and literature. According to Frank, the approach of the *nouveaux Français*, or, as he prefers to call them, the *nouveaux Parisiens*, comes from the joining together of classical structuralism (the continuity) and a reinterpretation of German philosophy (the discontinuity), which became an instrument for the subversion of structuralism. The list of German philosophers is not short and preeminent on it are Nietzsche and his anti-positivism and Heidegger with his phenomenology, himself connected to both Nietzsche and the idealism of Hegel, another major figure on the list. Frank also expands the list in two other directions, embraced already by Lévi-Strauss. The first is psychoanalysis, with its roots in Freud. The second is Marxism, mainly the idealistically tinged Frankfurt School, to which I would add the Marxist ambiance in intellectual Paris, the emergence of structuralist Marxism, and the fact that not a few among the neostructuralists were in sympathy or associated with the political Left. These influences on neostructuralism need some further comments, which I shall make at the end of this section.

Neostructuralism and (somewhat later) postmodernism revive, according to Frank, the old German anti-modernism and anti-Enlightenment romanticism (see also Hollinger 1994: 31). Neostructuralism resumes the German critique of metaphysics from romanticism to Heidegger, and proclaims the death of metaphysics and of any supreme and legitimating value, seeing this as part of the postmodern condition. Both neostructuralism and postmodernism exhibit this linking of German phenomenology and French linguistically based structuralism. I think that we may call this contradictory mixture "structuralizing linguistic hermeneutics," structuralizing in the sense that, starting from the context of structural

thinking and without abandoning it, they nonetheless end up annulling it. I believe, then, that Frank is right when he sees neostructuralism as simultaneously radicalizing structuralism and philosophically subverting it. He also rightly concludes that neostructuralism is more of a philosophical movement than an approach to the human sciences — however, and at first sight amazingly, postmodernism came to invade this domain, and not only. It is interesting to note that this distinction was already made by Jeanne Parain-Vial as early as 1969, when she differentiated between a scientific and an ideological structuralism (1969: 139–195). A year earlier, Jean Piaget (1968: 108–115) had criticized Michel Foucault's structuralism as a ''structuralism without structures,'' which replaced scientific methodology by speculative improvisations. All these views converge to show the opposition, within their continuity, between structuralism and neostructuralism as an opposition between a scientific, and positivist, orientation and a philosophical and interpretative orientation (for the above discussion concerning neostructuralism, see Frank 1989 [1984]: 7–30).

I shall discuss below the main views of the key neostructuralist authors, starting with the ambiguous case of Jacques Lacan; ambiguous, because he is mainly a structuralist (cf. Roudinesco 1990 [1984]: 361–362). I made reference earlier to the personal contact between Lacan and Lévi-Strauss. To this should be added that, on the occasion of a 1946 lecture by Lacan, we learn that he had just read Saussure, to whom he was introduced by Lévi-Strauss (Roudinesco 1990 [1984]: 144 — see also 175). Lacan started writing so early, is so closely akin to Lévi-Strauss and in a sense the Saussurean tradition, and is so fundamentally based on the concept of structure, that it is from a certain point of view difficult to understand his assimilation to the group of the neostructuralists. However, there are three factors, in my opinion, that underpin this association.

First, there is the fact that, although the *Écrits* include many earlier writings going back as far as 1936, Lacan acquired an international reputation only after their publication in 1966 (Lodge and Wood 2000 [1988]: 61), the same year as Foucault's *Les mots et les choses* and one year before Jacques Derrida's *L'écriture et la différence* and *De la grammatologie*. Thus it does not come as a surprise that, due to the historical conjuncture and the affinity of ideas of the *Écrits* with the other works mentioned, Lacan was considered as a neostructuralist. Of course, part of this affinity is due to what we also see in Lévi-Strauss, namely that the *Écrits* show the virtual existence of neostructuralism within structuralism itself.

Second, the book is enriched with a sophisticated literary style, current in neostructuralist and postmodern writings. As Pamela Tytell (1974: 79) observes: *''Le style lacanien est d'une difficulté légendaire: 'elliptique,' 'al-*

lusif,' 'oraculaire,' 'du gongorisme.'" This style is not the result of a super-ficial choice. For Lacan, the analyst is the practitioner of the language of the unconscious, a language of wordplay and poetry, in which the content is indissociable from the manner in which it is phrased, that is, style. So, too, Lacan's interpretations are incorporated into a discourse that is of a similar nature. This aesthetic approach to psychoanalysis is a more general characteristic of French psychoanalysis. Lacan's style of writing presents affinities with the symbolist poet Stéphane Mallarmé (Turkle 1992: 50, 54, 99). This last point reminds us of the relationship of Lacan with the Surrealists, an issue that points to their general affinity with neo-structuralism and to which I shall return at the end of this section.

The third factor is the most important. Lacan made a French read-ing of Freud, and the French Freudian school was politicized after May 1968, when the politics of individuality was combined with social politics. Its ideas were widely diffused in French society, leading to a kind of "Freud's French revolution," which was mainly due to May 1968. In this situation, psychoanalysts turned to radical social criticism and ad-hered to the Left, psychoanalysis acquired a central position in the Left, and Lacan, the key person for introducing psychoanalysis in France and who had not previously inclined notably to the Left, came to be seen, per-haps with some help on his part, as a radical. He became the leading figure of this new French "revolution," by preaching the primacy of de-sire (Turkle 1992: 6, 8, 10–11, 47, 49, 65, 68, 84–85). So, the post-May 1968 Lacan was the Lacan of desire, not structure.

Lacan's Saussurean interpretation of Freud rests on a capital distortion of a major point of Saussure's theory, the inseparable tie between the two aspects of the sign (see also Parain-Vial 1969: 149–150). The postwar La-can adopts linguistics as a pilot science — as opposed, for him, to a semi-ology hypothetically generalized — and he starts from the concepts of the signifier (S) and the signified (*s*). Only he rejects the major concept of their inextricable unison, the sign, because he presents their relation as an "al-gorithm," with the form S/*s*, and this concept of algorithm implies a *process by steps*, that is, $S \rightarrow s$. The signifier is "over" the signified, and this "over" is consistent with the "bar separating the two stages of the al-gorithm," which in his view resists signification. The signifier is the "supe-rior" term and the signified the "inferior." None of all this is to be found in Saussure, for whom, as we saw, the signifier and the signified are indis-solubly related (we recall that in an illustration of Saussure's book — Mauro 1972: 155–156 — the ideas occupy the upper part of the diagram and the sounds the lower) and the sign is an unbreakable unit. According to Lacan, this capital distinction — let me call it the Lacanian arbitrari-ness *on* the sign — is much more important than the arbitrariness *of* the

sign and distances us from the illusion that the function of the signifier is to represent the signified, that is, that the *raison d'être* of the signifier is to be related to any signification whatsoever. With a couple of dead-end examples, Lacan tries to show that a signifier has signification, only now he calls it "meaning," not signified. The "over" of the signifier goes, for him, together with the fact that the algorithm is "a pure function of the signifier" and the signifier "enters" into the signified, a signifier that sends forth its light into the darkness of unfinished significations. The bar makes possible the study of the relations between the signifiers themselves (Lacan 1966: 496–501). These relations correspond to the Saussurean concept of value, which is not mentioned by Lacan.

But one misunderstanding leads to another. On the basis of the above unimaginable separation, Lacan differentiates between two different networks. The first is the network of the signifiers, which is a synchronic structure, where each element is differentiated from the other elements. This is the principle ruling the elements of *langue* in its different levels. The second is the network of the signifieds, which consists of diachronic concrete discourses. The structure of the first network rules the second and the second one acts historically on the first. The network of the signifiers is structured, that is, its unities, from wherever we start to find their interrelationships and increasing integration, are differential elements brought together according to the laws of a closed order. Dominant in the second network is the unity of signification, which never indicates purely reality, but always refers to another signification — an endless referral of signification that we find later in Derrida. The coherence of this network comes from the signifiers, and thus there is an overdetermination of the signifier, both in synchrony and diachrony (Lacan 1966: for example, 46–47, 413–415, 498, 501–502, 594; see also Fages 1971: 20, 57–58). We recognize in this division Saussure's distinction between *langue* and *parole*, only that in Lacan, they no longer both operate with signs, but *langue* consists only of signifiers and *parole* only of signifieds. Jean-Baptiste Fages (1971: 57–58) indicates how Lacan has regrouped the oppositional pairs used by Saussure — signifier versus signified, *langue versus parole*, synchrony versus diachrony, and possibly paradigm versus syntagm — so that, on the one hand, the first terms of each opposition, and on the other, the second terms, correspond to each other: signifier–*langue*–synchrony–paradigm versus signified–*parole*–diachrony–syntagm. Fages tries to excuse Lacan by arguing that, since he is not interested in linguistics as such but only in its use in psychoanalysis, he overcharges the signifier with all the strong categories of Saussurean linguistics and leaves to the signified the weaker ones; Fages also admits that the supremacy of the signifier has no operational value in linguistics.

Thus, for Lacan, only signifiers are structured. Their structure results from their combinations; due to these relations, signifiers have meaning, and the relations between signifiers are ruled by immanent laws. Leaving aside, momentarily, the obvious objection that we never actually encounter pure signifiers, but only *signification*, we might note at this point that it is in fact possible to attribute a meaning to a relation, through a meta-linguistic operation. This is what Lacan is doing when he deals with abstract mathematical operations, of which he believes that they show the overdetermination of the signifier which the individual encounters when entering into the order of language, an overdetermination that he finds in the Freudian view of the symbolic function (Lacan 1966: 47–52, 60, 229, 649; Fages 1971: 57; Parain-Vial 1969: 149).

Let me briefly present the steps Lacan takes in order to give a mathematical expression to what he considers to be the relationships between signifiers. He starts with a pair of binary oppositions $+/-$, which corresponds, for him, to the fundamental alternative between presence and absence. Next, in function of these mathematical notations he constructs triadic groups, these first two operations being taken explicitly from Lévi-Strauss. The groups arrived at by Lacan represent all possible combinations between the initial notations. Lacan classifies these groups according to their formal characteristics into three classes, (1), (2), and (3). He applies these classes to a random series composed of the initial notations. He then proceeds to a superior level of classes on the basis of a combination by twos of the previous classes, which he names α, β, γ, and δ. Finally, he turns to the combinations of the latter classes and observes that the syntax of their succession determines different combinational possibilities for two of these classes compared to the other two. Lacan believes that this *chaîne signifiante* approximates a topological background (Lacan 1966: 47–50, 501–502).

What Lacan wants to show with this mathematical exercise — a product of the new, postwar, hardcore positivism — is that a succession of random phenomena is ruled by strict symbolic determinations, in order to conclude that the theory and practice of free association in psychoanalysis is meaningful due to the autonomy of the symbolic, and the power of psychoanalysis is to have recourse to this symbolic determination and its laws. These are the laws of the unconscious, a discursive unconscious, the laws of what is above the bar, and "the unconscious has the radical structure of language," i.e., the laws of the unconscious are the same as those of the natural languages — laws of the unconscious that for Lacan, just as for Lévi-Strauss, are universal (Lacan 1966: for example, 47, 52, 59–61, 285, 594; Parain-Vial 1969: 145, 146, 149). To this claim, Parain-Vial counterargues that from its very start Lacan's procedure is

ambiguous, since the relation to experience of the initial elements, to which the mathematical notations are applied, is not established according to explicit criteria; that these elements are not easily comparable to linguistic units; and that the coincidence of Lacan's structures with linguistic structures is not proven by the author (Parain-Vial 1969: 148–149).

Lacan's above treatment of the random series is much more than a simple example to him, as indicated by the incorporation of Lévi-Strauss's anthropological structures, as well as by the observation he makes at some point of his procedure that he has formulated the elementary formalization of exchange and that this has an anthropological interest (Lacan 1966: 49, 276–277; see also Parain-Vial 1969: 147). It is a tool with which Lacan attempts to formulate a universal matrix *à la* Lévi-Strauss. As to his "*topologerie*," it does not deal with the formal aspect of the mathematical objects to which it refers, nor with strict mathematical concepts, and lacks any mathematical coherency. The topological object is in Lacan a "revelation," a kind of model that "imagines" a psychological object and its properties, that is, it is a metaphor. Lacan has no illusion on that matter, using topological objects as a heuristic device because of their structural coherence (Dor 1996). However, the claims of the mathematical treatment of the random series opposes the views generalizing his metaphorical attitude towards his "topologery" to his psychoanalysis in general — and this is a factual observation that does not automatically classify me among the "detractors and dogmatists" concerning Lacan's work (Dor 1996: 118).

The structure of the signifiers is not, according to Lacan, a simple theoretical model, because its syntax produces effects within experience and is constitutive of the subject. Lacan relates this conclusion to structuralism in general, on the grounds that the latter conceives of experience as the field where "it speaks" — an observation at once Levistraussian and neostructuralist. This is why in "I speak," what is important is not the first, but the second term. Language is not a superstructure, but deeply experiential. Still according to Lacan, the constitution of the subject comes after the third and final step of the Mirror Stage, which is also the first of the Oedipus complex. During this step of the Mirror Stage, the stage of imaginary relation, the infant identifies with its proper image and also with the other, who is the desired mother, and the desire of the mother is the Phallus. This is the step of "primary identification." Previous to his constitution as a subject, the infant is just an "ideal-I." Then, the function of the subject is given by the social institution that is language, and thus the nature of the subject is discursive. The order of language, the Symbolic order, is the locus of the displacement of *parole*, the network of the signifieds; it is the *Autre* with a capital A, not as the sum

of interlocutors, but as an order. In this Other, and because of the Other, desire unfolds, the desire for recognition by the others, the desire to be desired by the others, the desire of the Other. Language implants desire in the object, which comes from the process of filtering need along the chain of signifiers. Desire thus understood is a dialectics of the consciousness of the self, which is a Hegelian use of Freud (Lacan 1966: for example, 30, 50, 94, 98, 268, 413–414, 628, 649, 655–656; Fages 1971: 16, 19, 32–33, 35; Parain-Vial 1969: 145).

When, after the Mirror Stage and within the Oedipus stage, the infant enters into the symbolic order, s/he as a subject is ruled by the Law of the Father, but in this context s/he is unable to conceive of the ultimate signifier of his/her desire, which is the Phallus, from which derives the whole of the symbolic order — the Phallus is not reducible to the biological "penis," but is a paternal metaphor. The subject passes through a series of confusions and alienations, due to imaginary identifications. It is at this point that clinical psychoanalysis intervenes. The patient is subject to a false and alienated language, due to a primordial alienation, while there is a true and liberated language, conscious of the primary signifier, the Phallus. The cure consists in locating, through the collaboration of the patient with the analyst, this primary signifier (Lacan 1966: for example, 94, 278; Fages 1971: 15, 18–19, 35–36).

The setting of clinical psychoanalysis poses, for Lacan, the patient as a speaker and in a situation of interlocution. In the course of this intersubjective discourse, the history of the patient unfolds. The analyst is a witness, who listens, translates, and guarantees the discourse addressed to him. He brings the patient into contact with language, thus functioning as a mediator. His "anchoring points" in the history of the patient are to be found in the following: the "monuments," that is, the patient's body, locus of the hysterical nucleus of the neurosis, where the hysterical symptom has the structure of a language and can be deciphered like an inscription; the "archival documents," that is, the memories from childhood; the "semantic evolution," that is, specific traits of personality, such as lifestyle, character, and vocabulary; "traditions," that is, personal myths; and "traces," that is, those elements that, in a distorted form, lead to what is hidden behind them (Lacan 1966: 235, 257–258; Fages 1971: 21–22). Note that, in this terminology, Lacan uses a series of metaphors from historical research.

In the process of psychoanalysis, the "anchoring points" are the elements corresponding to the consecutive steps of the patient's desire, which constitute the chain of the unconscious signifiers, the unconscious "thoughts" of the subject. Through this chain, the analyst provokes the regression of the patient back to the unconscious primary signifier of

his/her desire, the Phallus, thus ending the previous movement. In this manner the unconscious, previously censured, empty, and replaced by a lie, is conquered, and truth, individual reality, the Real (cf. the objectivity of Lévi-Strauss's matrix), is found. At this moment, the moment of *"tu es cela,"* the cure is effected, the analyst is in a position to show to the patient retrospectively the web that s/he has woven starting from the primary signifier, and thus the subject is integrated without cracks into the symbolic order, having now the ability to speak consciously about this web (Lacan 1966: for example, 235, 258–259, 537; Fages 1971: 23–24; Parain-Vial 1969: 146).

I shall end this discussion of Lacan's partly Saussurean, partly Levis-traussian, and, as I shall argue at the end of this section, partly surrealist reformulation of the Freudian analysis of the unconscious, with two points that follow from it. First, there is a close resemblance between Lacan's programmatic statement, which, with its historical metaphors, aims to show that it is possible, starting from individual micro-history, to find the laws of the unconscious, and the ideas that we find thirteen years later in Foucault's *Les mots et les choses* on the level of macro-history. Following his route from the unconscious to language, Lacan concludes that: "C'est le monde des mots qui crée le monde des choses" (Lacan 1966: 276), a statement echoed in Foucault's title and *épistémè* as the rules of the construction of subjects, objects, and concepts (see also Gros 1996: 38–39). According to Lacan these metaphors are substantial, because the historical method can serve as a model for psychoanalysis. The reason is that the ideal in history is the "identification of the subjectivity of the historian with the constituting subjectivity of the primary historization in which the event is humanized" (Lacan 1966: 287), a view that makes a bridge between Lévi-Strauss and Foucault. Second, the advent of the cure coincides with the revelation of truth. It is the truth for the patient, it is the truth for the analyst who was able to detect it through his scientific method, and this truth is to be found in the structure as reality, just as for Althusser. Since truth comes from the formal structure of the signifiers, which partakes of the universal, and is extracted, as in Hegel, through rational discourse, no experience can disprove it, and even the cure of the patient is not necessary (Parain-Vial 1969: 145–146); there is thus no possibility of verifiability or, to put it in Popperian terms, falsifiability. Truth is a closed circle, as is the case with the mythological analyses of Lévi-Strauss.

The concept of structure did not meet the same fate in general neo-structuralist thought. I mentioned earlier that Harris attributes the prewar success of the synchronic *langue* — and I would add of a robust structure — to the need for leaving behind a past of crisis and building a new pres-

ent. Harris also argues that the diffusion of Saussurean ideas was even wider after World War II, with as a result that the structuralist explanation of culture occupied once more the center of scientific interest, but this time it came to be seen with scepticism, because the new war had erased the hope invested in synchronic constructions, and became the target of the critique of the poststructuralists (Harris 2001: 205–206).

Harris offers here a negative explanation for the above reaction against the core of structuralism, but I think that there is also a positive, and strong, explanation of this reaction. We saw in the first section of this text that postmodernism resulted from the economic and cultural globalization of the 1970s. In the context of globalization, the central cultural phenomenon is the interaction between the cultural traits accompanying globalization and the local cultures, with as a result the transformation of the latter. In a fast-moving world, the structure recedes in empirical reality — which, however, by no means implies that it disappears — and what stands out is rapid change.

The concept of structure is emphatically contested by Derrida. The critique of that concept, and, on a general level, of structuralism, but also pansemiotism, and thus idealism, mark Derrida's deconstruction. Derrida argues that "structure" is inherently a metaphorical concept, is derived from space and construction. Structuralism approaches meaning as form, and form is spatial. The preoccupation with form makes structuralism formalist and "ultrastructuralist." Structure is something completed, built; it may presuppose content, but it finally neutralizes it. Structuralism is also teleological, because the location of an organized totality presupposes the anticipation of an end, that is, it believes that meaning exists exclusively within the totality, and this is revealed not to be the case if the totality was not animated by such an anticipation. Further, structuralism is essentialist and metaphysical, because it considers structure as real, as being in the object, and thus as presence, a view Derrida calls "structural realism." Thus, according to Derrida, structure presupposes a present "center," a fixed origin. It is this center that renders the centered structure stable. It is this center that in the Western history of metaphysics has been given a variety of definitions (such as God, consciousness, substance, matter, history, class struggle, politics, economy, truth), which all determine being as presence (Derrida 1967a: for example, 11–14, 27–29, 35, 36, 41–44, 409–411; Frank 1989 [1984]: 62–63, 64–65).

For Derrida, on the other hand, meaning cannot be restricted to the simultaneity of form. The content attached to structure overflows it, because it is (related to) movement within language, (related to) the living energy of meaning; this energy is (leads to) meaning itself, and it is linked to instability. Any center that pretends to stabilize meaning is not a

reality, is not a "being-present." Due to the absence of a center, an origin, a structure, i.e., of a referent or a signified outside language, all languages, including those of the human sciences, are just discourse: "Il n'y a pas de hors-texte" (Derrida: 1967a: for example, 13, 35–36, 1967b: 90, 227, and 1972: for example, 125–126).

The lack of a center is the cornerstone of Derrida's philosophy. But every cornerstone can be stabilized only when there is a ground underneath it. And this ground is Saussure and his concept of value, which Saussure relates to the arbitrariness of the sign. Value shows that the nature of linguistic entities is relational and differential. Derrida finds that the thesis of the arbitrariness of the sign, for which he prefers the term *non-motivation*, is fundamental. He opts, however, for the correlative thesis of difference as the source of value. For Derrida, the center is a necessary function, which aims at organizing a structure and limiting its freeplay (the result of the Saussurean concept of value). But the center neutralizes the structurality of structure (the structurality that is the condition for value — Derrida: 1967b: for example, 65–77 and 1967a: for example 409).

Any assumed "central" signified, which would be considered as original, positive, and transcendental, is just part of the system of differences, and the fact of its absence extends *ad infinitum* the freeplay of the substitutions of signification, through the referral from signifier to signifier, within the system as a finite whole. Thus, any signification process is a game of differences, without which there is neither signification nor structure. Given that the linguistic entities are interrelated, each one of them is constituted by the "traces" in it of the other entities of the system. No entity is in reality present as such, but relates to other entities, which are equally not present. The same conception is applied by Derrida at the macro-level of whole texts. Texts are produced by their interconnections with other texts and every text is a transformation of other texts. We encounter here the older concept of intertextuality, introduced by Bakhtin (Greimas and Courtés 1979: "Intertextualité") and used by Julia Kristeva (1969: see 316), in a Levistraussian form. Due to this dynamics, there is no positive signification in a text, because the text is different from itself before it even exists (Derrida 1967a: for example, 42, 423, 1967b: for example, 73, and 1972: for example, 16–18, 37–38, 45–46, 78; Frank 1989: 74–75).

Thus, Derrida points out the "horizontal" relationship between texts, while on the other hand he does not accept their "vertical" relationship. Since the center, the referent, i.e., what is considered to be outside the semiotic, is part of the semiotic and only an effect of the reference of discourse, no text can transcend, "explain" another text, that is, there can

be no metalanguage (science included); such a hierarchy would presuppose an actual reference to an external referent. It is the reality of decentering that is attached to the structurality of structure. Following Nietzsche, who is a major influence on his work, Derrida conceives of science as a truth-seeking discourse marked by the repressive ideology of reason. In spite of his rejection of metalanguage, however, he states that he does not intend his discourse to be a discourse against the *value* of truth and against science, and he rejects relativistic empiricism (Derrida 1967b: for example, 227, 1972: for example, 117, 79–80 note 23, and 1967a: for example 411; Norris 1982: 59–60). Because philosophy, for Derrida, cannot overcome the presence of language and its rhetorical devices, it — and indeed any other kind of discourse — must be subject to the same modes of rhetorical analysis with which literature is approached. Derrida makes explicit this connection between philosophy and literature in his own writings, so that they "seem more akin to literary criticism than philosophy" (Norris 1982: 18–19, 21 and 1990: 152), an interest in style that we already encountered in Lacan and that is also manifest in Lévi-Strauss, for example, in *Tristes tropiques* (1955).

According to Derrida, the differential effects in the semiotic systems are the "product" of the structurality of structures, the latter being the "root," the "origin" of the former. Derrida insists on these quotation marks, because he thinks that without these marks, the description would fall back into the language of metaphysics. While structurality is, for him, the background of meaning, he states that it itself has no absolute origin, no positive existence, and cannot take the form of a presence, be described by any metaphysical concept, or be the object of a science (Derrida 1972: for example, 16–18, 38–39, 78 note 22 and 1967a: 83, 90–92, 95). If this structurality, *différance*, was coextensive with differences, Derrida would avoid both the terms in quotation marks and the quotation marks themselves. We must, then, conclude that, while differences generate meaning and thus represent the process of semiosis, *différance* belongs to a superior level and generates the presuppositions for meaning, corresponding to semiosis itself as a process. Derrida manifestly has to see this process as internal to the sphere of semiosis and avoid the appeal to a center and to any kind of metaphysics (cf. Frank 1989: 60–61, 62). However, the center strikes back with terms like "product," and the only way out of this *reductio ad absurdum* is to locate the origin of the process of semiosis outside the semiotic system itself and in the sphere of the extra-semiotic. Using a different paradigm from my own, Deely reaches a comparable conclusion. Based on the Peircian triadic relation in a sign and the concept of natural sign, he considers *différance* as an "object signified" (which is, for him, closely connected to an external referent) and

argues that thus indefinite referral, which is possible only in the realm of the sign (as opposed to the object signified), is immobilized (Deely 2001: 679, 681–684).

The structurality of structure is a structured movement / energy of meaning, the formation of the form, leading to the internal geneticism of structures. Derrida uses different terms to denote this dynamics of meaning: *différance*, force, archi-writing, *gramme*, (pure, originating) trace. As we saw, decentering is attached to *différance*, as is also the freeplay of signification. Due to the movement of freeplay, the absent center is filled, but with a signified that is a floating addition to it, a supplement, so that this movement is one of endless supplementarity. The reality of freeplay disrupts presence and being, generally all ''centers'' of Western thought. The lack of a center allows Derrida's deconstruction to proceed to a radical critique of what he considers as Western metaphysics and, with it, of the major modern philosophical concept of the subject. Not unexpectedly, the subject is derived from the semiotic movement of *différance* and there is no presence of the subject in itself outside and before that movement. It is thus not true, for Derrida, that the semiotic codes emanate from the subject, but on the contrary the subject is constructed through the semiotic system. *Différance* and freeplay exclude the search for truth and lead us beyond the subject, man, and humanism (Derrida 1967a: for example, 26, 423, 426, 1967b: for example, 37, 88, 91–92, 95, and 1972: for example, 27, 39–41, 48; Frank 1989: 303).

Derrida's deconstruction has been extremely influential and two major ideas with a tremendous impact in practice are the byproducts of *différance*, namely the freeplay of signification, and the leveling of all kinds of texts, which, by implying their fictional quality, brings them within the field of literature. Norris believes that the casual use of these two ideas completely betrays Derrida's deconstruction, and he strongly criticizes this ''ultra-textualist thesis'' adopted by a circle of literary critics in the U.S., an issue to which I shall come back in the fourth section of this text. Of course, Norris contends, Derrida identifies the linguistic factors, such as metaphors, which make indirect the transition from ''what the text manifestly *means to say* to what it actually says.'' Norris assimilates this search for covert meaning to the essential freeplay and thus he is absolutely critical of slogans such as ''all reading is misreading'' or ''all interpretation is misinterpretation.'' Norris accepts that Derrida argues for a limitless play in the end of ''Structure, sign, and play'' (see Derrida 1967b: ch. 10), but he believes that Derrida does so after a deconstructive reading and rigorous critique of Lévi-Strauss, structural anthropology, and certain classic binary oppositions, operations which are opposed to a limitless freeplay. So, Norris considers this contradiction as apparent

and argues that the meaning of freeplay is that "at the limit" there is no *de jure* (i.e., theoretical) principle able to restrict freeplay in a text and that meaning is by its nature indeterminate (which is why texts are continuously open to new interpretations), but this does not imply that there is not a *de facto* (i.e., empirical) possibility of interpretation in philosophy, literary criticism, or everyday conversation. Derrida himself, argues Norris, uses a coherent argumentation and it is this latter that leads him to his apparently anti-philosophical theses, which reveal the limits of systematic thought.

Concerning the leveling of philosophy and literature, Norris argues that Derrida does not want to eliminate their difference, but intends to show that these distinctions are founded on unstable oppositions, such as literal-figural; however, the latter are necessary as the starting point of any philosophical discourse that aims at overcoming them. According to Norris, Derrida is opposed to what could be labeled the "vulgar deconstructionist position," that is, that philosophy is no more than a "kind of writing."

Of course, the pendant of the ideas of freeplay and the leveling of texts is the status given to the referent by Derrida, and Norris has to come to terms with "il n'y a pas de hors-texte." He emphatically does not believe that Derrida's view coincides with its interpretation by postmodernism, which sees truth and reality as the products of an unending freeplay. According to Norris, this kind of interpretation rules out any *Ideologiekritik*, which is not the case with the work of Derrida, and the latter's work does not share in the postmodern counter-Enlightenment orientation (for the above, see Norris 1990: 38, 52, 147–154, 158, 206).

I think that Norris is right in defending Derrida as a systematic philosopher and in redressing, as far as this can be done, the concepts of freeplay and of the leveling of texts. However, two important issues seem to escape from his considerations. The first is that Derrida provides no theory for the relation between the *de facto* possibility of interpretation — let me call it theory in practice — and the *de jure* lack of a principle restricting freeplay, that is, theory in theory; this allows him to act out at will two different Derridas, to paraphrase the French expression *"Jacques qui rit et Jacques qui pleure,"* the wild freeplaying critic and the anti-essentialist philosopher (see also the fourth section of this text). What, then, are the criteria for the *de facto* limitation of freeplay? The second issue concerns the status of truth for Derrida. Norris, as we just saw, defends Derrida on the grounds that he protects truth and reality from their involvement with freeplay. Here Norris seems to be willing to protect the referent, but how is it possible to do so, since for Derrida there is no accessibility to it or truth? Elsewhere, Norris (1990: 148, 154) refers to the

value of truth, and this is in fact the point made by Derrida, but the value of truth, which is an endo-textual issue in philosophy for Derrida, is utterly different from truth as tested against (the banished) external reality.

The relation of Derrida to Saussure is extremely close, but he goes well beyond the Saussure's delimitations, as he himself phrases it: not "to 'surpass' the teaching of the master, but to continue and extend it"; while his relation to Lévi-Strauss is one of combined attraction and distancing. On the whole, Derrida, just as Greimas and Barthes, follows the Saussure-Hjelmslev-Lévi-Strauss line, to which Nietzsche and Kant should be added, though he is also critical of its links (Derrida 1967a: for example, 74, 81, 86, 88; Norris 1982: 1–2, 30–31, 48, 54, 79–80 and 1990: 205–206). This is the same attitude that he adopts in respect to Marx. Derrida combines a reverence for Marx's thought with a determined attack on the discourse — which he rightly considers as tending to become dominant on the geopolitical stage and aiming at imposing a world hegemony — which celebrates the death of Marx and Marxism and extols capitalism, neoliberalism, the economy of the market, and liberal democracy. He also rightly mentions the existence of different "spirits" of Marxism and he states that he adopts one among them, not Marxist orthodoxy, but radical thinking. We note that here, strangely Derrida adopts an undoubtedly referential viewpoint, when he refers to "horstexte" phenomena, such as geopolitics, capitalism, and the market, which can scarcely be understood as semiotic (Derrida 1993: for example, 36, 90, 95–96, 142, 148–150).

According to Derrida, Marxism is necessary, but needs to be radically changed, something which for him is in agreement with the Marxist spirit. For Derrida, who wants to be a "good Marxist" (his quotation marks), deconstruction would be impossible without Marxism, which should not be judged as illusory, and is faithful to Marxism as a radical critique, a stance that is a heritage from the Enlightenment, but is also a radicalization of Marxism, a critical discourse on the critique and ontology of Marxism, without sacrificing its emancipatory promise (Derrida 1993: for example, 101–102, 145, 151–153, 269). This strikes me as too abstract a relation between deconstruction and Marxism, which is why I believe it wiser to stay with the conclusion of Christopher Norris that "it is difficult to square deconstruction in this radical, Nietzschean guise with any workable Marxist account of text and ideology. Such attempted fusions in the name of a Marxian post-structuralist theory are fated . . . to an endlessly proliferating discourse of abstraction" (Norris 1982: 80, 83–85).

Derrida's semiotic theory, grammatology, makes the final step towards the isolation within the semiotic and idealism (although Derrida would, of course, deny it). What with Saussure was an epistemological decision,

a relevancy, with a tendency towards idealism, and with Lévi-Strauss scientific idealism but philosophical positivism, becomes with Derrida pure philosophical idealism (see also Deely 2001: 611, 681). Derrida builds a totalizing philosophical understanding (Norris on the one hand subscribes to this view — Norris (1990: 139) — and on the other states the opposite — Norris (1982: 1), but he does not seem to understand that it is the output of an initial decision to adopt a specific relevancy, which then is denied as a metalanguage by his own system, and that the adoption of a different relevancy would lead to different philosophical conclusions. In this manner, while Saussure did not even extrapolate from *langue* to the whole of linguistics, Derrida extrapolates from *langue* to the whole of semiotics and further to the whole of philosophy.

Derrida is close to structuralism, but his approach uncouples two concepts that are almost identical in structuralism, system and structure. He adopts the concept of system, but rejects structure. He believes that ultrastructuralism, where Lévi-Strauss is included, despite its merits, by focusing on structure rejects the most valuable and original intention of structuralism. This intention is served, as he states, by the concept of *différance*. The structure of ultrastructuralism is static, but there is also another kind of structure, produced by *différance*, which is ruled by systematic transformations related to differences (Derrida 1967a: for example, 27–28, 43–44 and 1972: for example, 39). Just like Foucault, Derrida proposes a structuralism without structures (see also Frank 1989: 64–65, 69, 73). Since the structures of structuralism are not, for Derrida, wrong, but the product of the ossification of meaning, we may deduce that what he proposes is a completely open transformational matrix. While the Levistraussian matrix is anchored in a "center" (the laws of the unconscious, the functioning of the brain), Derrida wants his own matrix to have no origin.

The rejection of a stabilizing center is also the hallmark of Lyotard's view of the only legitimate type of knowledge and science in the postmodern condition. The use by Lyotard of the term "postmodern" is of major importance. As we saw in the first section, the term was rather current in the U.S. during the 1970s, and, when Lyotard uses it in his *La condition postmoderne* (Lyotard 1979: 11 note 1, 63 note 121), he refers to sources from that country and an article by the German Michael Koehler in the journal *Amerikastudien*. Lyotard's encounter with this term is pointed out by Huyssen, who observes that it came to Europe via Kristeva and Lyotard in Paris and Jürgen Habermas in Frankfurt (Huyssen 1988: 184). Lyotard's book came to legitimize the bond of postmodernism with neostructuralism (see also Storey 1993: 159).

I remember Lyotard, during a 1975 summer school at the Centro Internazionale di Semiotica e Linguistica of the Università di Urbino,

declaring repeatedly "Je n'ai pas de point de vue," meaning that he did not subscribe to any theory offering a center, a fixed referent through which to objectivize knowledge. According to the same rationale, in *La condition postmoderne*, the legitimating "grand narratives" of modernism, such as the Hegelian dialectics of the Spirit and the Marxist emancipation of humanity, cannot validate postmodern scientific discourse. By a curious sidestepping, Lyotard avoids any reference in the very rich bibliographical notes of his book to the then still present Derrida, and instead has recourse to the by then absent Wittgenstein and his language games. Science in postmodernity plays its own game, and cannot legitimize or speak legitimately about other games, because it cannot in the first place legitimize itself. Each game has its own rules and the games are "heteromorphic" compared to each other. Thus, scientific knowledge is just one type of discourse and there is no metadiscourse of knowledge, no universal metalanguage, there are no common meta-prescriptions either for the sciences or generally (Lyotard 1979: 11, 32, 63, 66–68, 98, 104–107).

In dismissing meta-prescriptions, Lyotard makes a furious attack against social systems theory, the "ideology of the 'system'," and its performance criterion. He identifies this ideology with technocracy as a totalizing tendency, cynicism, and terror, the terror that attempt to impose "isomorphy" on the language games. I believe that in this position are joined together two parallel components of Lyotard's thought, a philosophical and a political one. Politically, Lyotard was affiliated with the *Partie Communiste Français* (PCF) — and strongly criticized by its partisans when he left it — and was a member, as he confesses, of the group *Socialisme ou barbarie*, the ideas of which are close to those of the critical Frankfurt School. His stance towards the system reflects the views of the European Left of the time on the bourgeois state apparatus — which find their pendant in the hippie movement and in American films such as Francis Ford Coppola's *The Conversation* (1974). Scientifically, Lyotard opts for the antimodel of the stable system, which corresponds, for him, to the actual pragmatics of science. It is an "open system," where a "differentiating" (*différenciante*) activity is at work according to which a metaprescriptive discourse generates new discourses and rules of games. This concept is of course inspired by the Derridean *différance* and Lyotard, once more like Derrida, rejects structure, but not the system (of differences), to which, as a social system, he states no pure alternative can be found (Lyotard 1979: 25–27, 28 note 46, 29, 99, 103–105, 107). Contrary to the grand narratives, postmodern science operates with local "small narratives." It is easy to understand that Lyotard considers these as open, dynamic and innovative. This is Lyotard's grand narrative of small narratives.

The lack of grand narratives, as well as the small narratives and the language games and their game of continuous differentiation, all point towards the typical neostructuralist enclosure within the semiotic. However, at the same time Lyotard, like all neostructuralists, contradicts himself by himself referring to extrasemiotic phenomena: capitalism, the market, and funding are very concrete extrasemiotic referents. The play of differences also excludes causality, which Lyotard should thus avoid; and he does try to argue against the causal interpretation of the decline of grand narratives as due to technological development or a new development of capitalism. But he nonetheless accepts the impact of these factors on knowledge, which seems to me to be both a grand narrative and a contradiction (Lyotard 1979: 8, 12, 63, 75–78, 104, 107). Such "double-coding" may function in architecture, but not in epistemology.

The extrasemiotic surfaces once more in Lyotard's view of postmodern art, or "transavantgardist" art, as he also calls it. He argues that this art is eclectic and kitsch, and its "anything goes" character corresponds to the confusion of artists, critics, and public. It is certainly ironic that one of the pillars of American postmodernism, who with his small narratives offered the theoretical justification for eclecticism on every level, is so straightforward in dismissing it; but he is not alone among French neostructuralists to adopt such a perspective against postmodernism. As to the extrasemiotic, Lyotard states that when aesthetic criteria are replaced by the view that "anything goes," realism is at work, only that it is the realism of the assessment of art according to the profit it offers. Thus, this kind of realism functions like capital, which accommodates everything considered as need, and in both cases the aim is profit (Lyotard 1992: 145).

This appeal to extrasemiotic referents is in contradiction with the quotation marks that Lyotard uses for the term "reality," quotation marks which, however, are consistent with his main views. Lyotard argues that the referent ("reality") is linked to the process of proof, that the application of a proof is the ascertainment of a fact. Technology has today penetrated the management of proof, but it is a game whose aim is not truth, but performativity and efficiency. Ultimately, capitalism controls research through power, and power through technology controls "reality." This conception of reality encloses knowledge within the semiotic and connects it to (the extrasemiotic factor of) power (Lyotard 1979: 72–78) — a major issue for the Foucault of the 1970s, whom Lyotard strangely does not mention anywhere in his book.

As I noted above, the language games point to the same enclosure within the semiotic. In fact, Lyotard connects them to communication circuits. Social relations are established between individuals and each

individual is a node of communication circuits. Lyotard adds that he does not want to identify *all* social relations with communication, which is a concession to the existence of extrasemiotic, material social relations; he also adds that this will remain an open question. But this question is actually answered later, when he states that the social bond is linguistic. In this manner, society as a whole becomes communication, just as for Lévi-Strauss. However, Lyotard, like Derrida, is opposed to structuralism, which he considers a Newtonian anthropology and to which he contrasts the language games. Instead, he opts for a critical, reflexive, and hermeneutic approach to knowledge. There is, according to Lyotard, a dissemination of language games, this is why he is opposed to Habermas's idea of universal consensus. Due to this dissemination, writes Lyotard, the social subject seems to be dissolved, another overlapping with Lévi-Strauss, with the difference that this dissolution is no longer due to a universal matrix (Lyotard 1979: 8, 29, 31–32, 66, 106–107).

Lyotard conceives of the inaccessibility of the referent in aesthetic terms. He states that capitalism, modernity, and science necessarily discover the un-reality of reality and invent new realities. In the domain of art and literature, according to Lyotard, this discovery is made by the avant-gardes, which are founded on the aesthetics of what is known as the Kantian sublime. The sublime here results from the impossibility of making visible the domain of concepts, which does not offer any knowledge of reality and should be considered as unpresentable. Following Kant, Lyotard considers that the feeling of the sublime offers pleasure derived from pain. He defines avant-garde art as postmodern, because it alludes to the reality of the unpresentable, and this by means of a visible presentation denying representation and reality. For him, the postmodern artist and philosopher are in the same position, one in which they produce works not obeying pre-established rules. There can be no reconciliation between the concept and the sensible, between language games, no possibility of achieving a totality. The illusion of totality, "the realization of the fantasy to seize reality," lead in history to terror (Lyotard 1992: 145–149). These views bring to the foreground the aestheticization of philosophy that marks neomodernism.

While Lyotard avoids the Levistraussian matrix, the latter is the model used by Foucault; not, however, in its mathematical and universal form, but in a qualitative and historically relative form, historicizing the "order of orders." In fact, Foucault, in the first formulation of his history — or "archaeology" — of the sciences and of knowledge in general, uses as his central concept *épistémè*. He defines *épistémè* as an unconscious epistemological "order," a "grid," a system of rules, historically defined, i.e., corresponding to a specific historical period, which includes the precondi-

tions of knowledge in this period. These preconditions delimit within experience a certain domain of knowledge and set the context in which may evolve a discourse considered as true, that is, they define for the subjects of knowledge a certain general mode of positioning, impose a mode of being for the objects of knowledge constituting the above domain, and offer a mode of organization for the concepts used. The systems of *épistémè* are subject to sudden historical transformations and are thus discontinuous, with as a result the exclusion of any continuous progress in the knowledge of what is considered as truth at any particular time (Foucault 1966: 11–14, 170–171, 384–385; Gros 1996: 38–40, 49; Merquior 1985: 35–39, 56). Piaget is strongly critical of this archaeology of reason, because it concludes ''that reason is transformed without reason'' (Piaget 1968: 109, 111–112, 114; see also Frank 1989 [1984]: 90–93).

It is evident that there is a close connection between the concept of *épistémè* and the matrix of Lévi-Strauss, and also the laws of the unconscious of Lacan (see also Parain-Vial 1969: 192; there are also other bonds of Foucault with Lévi-Strauss that I shall indicate below). According to Foucault, then, an unconscious ''grid,'' culture-specific, presides over human thought. This grid conditions historical thought, a view historicizing the Levistraussian matrix. A similar idea can also be found in Lévi-Strauss, who, setting aside the quasi-identification he posits between mythical and Western thought, indicates their two different modes of approaching and apprehending the world. *Épistémè* in *Les mots et les choses* (1966) even simplifies Lévi-Strauss's order of orders, by posing a high degree of isomorphism between the areas of knowledge studied (natural history and biology, economics, grammar and philology) — Merquior (1985: 36). As is the case with the matrix of Lévi-Strauss, *épistémè* eliminates the subject. One more similarity with Lévi-Strauss is the lack of progress in respect to thought systems (see also Gros 1996: 37–38, 40–41, 47, 93; Merquior 1985: 52). These latter views illustrate the anti-modernity project of Foucault (also Merquior 1985: 16–17, 151). After *Les mots et les choses*, he came to be seen as a structuralist. What comes as a surprise is that himself denied any such relationship; indeed, Frédéric Gros, who is a connoisseur of Foucault's work, believes that, with the exception of the elimination of the subject, Foucault has no other ties to structuralism but is instead founded on Nietzsche (Gros 1996: 38, 48, 93; see also Merquior 1985: 15, 77, 143). An opposed view comes from J. G. Merquior, who considers *Les mots et les choses* as the heyday of structuralism and the ''poststructuralism'' of Foucault and Derrida as having a ''love-hate relationship'' to structuralism (Merquior 1985: 13, 14).

So far, I have mentioned the ideas of the early Foucault. From the end of the 1960s he retreated one more step from the Levistraussian matrix,

though without losing contact with it. There is now no longer one general system of knowledge in each historical period, but a plurality of discourses of knowledge. These discourses are given a processual character, because Foucault considers them as practices, which is a Marxist concept (see also Merquior 1985: 79–80). As with *épistémè*, the discourses-practices are subject to internal rules, the "rules of formation" of the discourse or "practice." In respect to the referent of these discourses, Foucault once more follows Lévi-Strauss and also Lacan in insisting on the subjectivity of the historical fact. Just as for Lévi-Strauss, the positivist objective "fact" is replaced by Foucault with a semiotic entity, the "discursive event," with the rationale that discourse absorbs reality. The discursive events of each discourse constitute an aleatory series, and discourses are discontinuous with each other (just as the sequence of successive *épistémè*); actually the discursive event follows from the relationships between these series, but without losing its origin in the material world — a Kantian view which Foucault calls a "materialism of the noncorporeal." We may conclude that any kind of history turns out to be a semiotic history of ideas. It is a history of a whole made up of discontinuous discourses, the relationships between which lead Foucault to two major conclusions. First, the subject, being the node of these discourses, explodes in a plurality of positions; and second, there is the need to elaborate, outside the philosophies of the subject, a theory of "discontinuous systematicities," which, I believe, we may consider as a new form of the *épistémè*, but much broader and close to Lacan's *chaîne signifiante*. Now, the "order of orders" takes the form of the "series of series" ruling the discursive formations (see Foucault 1971: 54–62; see also Gros 1996: 51–52; Frank 1989: [1984] 94–95, 126–128, 133–135).

   Still according to this second Foucault, a major role in the structuring of the discourses of knowledge is played by power (cf. Lyotard), a concept inspired by Marxism (see also Merquior 1985: 110). In the "disciplinary societies," the Western societies that emerged during the seventeenth century to take full from in the next century, power, at the microscale of "microphysics," becomes discipline, which is a political technique aimed at the submission of the body and at creating functional individuals. Power has an impact on knowledge, and more specifically on the human sciences, and constitutes subjectivities in a technico-political manner (Foucault 1971: 12; Gros 1996: 66–70, 84, 94).

   With his microphysics of power Foucault does not intend to contest the importance of the state apparatus, but to bring to the surface complementary and finer relations of power which, while they are not part of it, "often sustain the State more effectively than its own institutions" and extend and intensify state power. Thus, he considers it a limitation to iden-

tify power with the state apparatus and to consider state power as the only form of power of a dominant class, a simplification he states is not found in Marx. This small-scale, diffused type of power is labeled by Foucault the ''panoptic apparatus,'' after Jeremy Bentham's Panopticon. He uses it as the model of the small-scale power apparatuses or power machines which are the anonymous mechanics of power: the prison, the military base, the hospital, the school, the factory. The apparatus controls and disciplines the body, a discipline that is a political technique of the body. A major factor of the discipline of the body is the distribution of individuals in space, and space is central in the Panopticon, where from a central tower, the anonymous observer's gaze penetrates completely the cells of the observed located in the surrounding architectural ring (Foucault 1980: 71–73; Gros 1996: 66–67, 73–74).

At this point, the problematics of power encounters spatial organization. Foucault is not generally interested in matters of geography, although he confesses in an interview that his genealogy of knowledge is tied to the techniques and strategies of power, which are deployed through the distribution, delimitation, and control of territories and the organization of domains, leading to a kind of geopolitics; and concludes that ''Geography must indeed necessarily lie at the heart of my concerns'' (Foucault 1980: 70–71, 77). Nevertheless, the idea of the centrality of space in the contemporary conception of the world is found early in his thought. The nineteenth century was obsessed with time; ever since, space has been devalued. Space has been considered as immobile and undialectical, while time as living and dialectical. But today is the era of space and simultaneity, and the world is understood as a network uniting points; time itself is seen as a distribution between elements located in space (most of these views were formulated in 1967 — Foucault 1994: 752–754 and 1980: 70).

A third Foucault may be detected from the end of the 1970s. During this new stage of Foucault, his nuclear concept of power is replaced by ''governmentality.'' During the previous phase, power was the central factor for the organization of the discourses of knowledge, the definition of truth, and, through them, the constitution of the subject. Governmentality, on the other hand, represents the articulation between three independent factors: forms of knowledge, power relations, and processes of ''subjectivation'' (processes concerning subjectivity as a relation to one's self). While in the previous phase there was a relation between these dimensions, with power as the nodal point, in this new phase they are irreducible to each other. Foucault further evolved this idea in a fourth stage of his work in the 1980s, in which his object becomes historical experience as the domain of articulation of the three factors above, and the subject,

as an historical subject, auto-constituted through practices installing a relation to itself including the body (an experience that in the realm of sexuality was structured by the mastering of pleasure in ancient Greece) is now given the central position (Gros 1996: 83–84, 90–97).

On the whole, then, Foucault's cultural theory passed through four different stages. In the first stage, culture is regulated by a unified *épistémè*; in the second, culture loses its unity by becoming multifocal and is ultimately regulated by power; in the third, a multifocal culture is regulated by a triad of incommensurable factors; and in the fourth, among these factors predominates a human subject brought back to life. These stages of Foucault's work, as is the case with Derrida and Lyotard, set a strong agenda for postmodernism, which was destined to have a tremendous impact and centers on a set of issues including the semiotic nature of all historical or sociological phenomena, the function of power in the semiotic domain, the creation of subjectivity and identity, and the semiotics of the body. The integration of space within Foucault's theory of power probably contributed to the central position space has acquired recently in the social and human sciences, in conjunction with the structuralist and neostructuralist hostility to time/history, as well as to Henri Lefebvre's (1974) and David Harvey's (1989) Marxist analyses of space, linked to political economy and semiotics.

Evolving from the first to the next stages, Foucault acquired a greater originality of his own. Foucault studies culture as a semiotic phenomenon, but he also refers marginally to extrasemiotic phenomena, without, however, any theory to relate these two orders of phenomena. Thus, he accepts the existence of "real space" as referent, but his spatial analysis is an amalgam between a mainly semiotic view on space and disparate observations on material space (Foucault 1994). Foucault also has recourse to the major referent of capitalism — as did Derrida and Lyotard — and states that power is based on the new mechanisms of capitalist production, though it cannot simply be reduced to them. With this kind of statement he tries to avoid a contradiction (of the kind into which Lyotard falls) which consists, on the one hand in the adoption of an interpretative scope, dominant also in phenomenology, which wants to avoid causality, and on the other in the acknowledgment of an external referent, capitalism, which brings to the fore the issue of causality, a contradiction that cannot be solved within his interpretative framework. (A similar case appears endosemiotically, concerning the impact of power on knowledge, since, for Foucault, the latter is not the simple ideological reflection of the former.) Coming back to the extrasemiotic, discourses as practices are articulated on (material) social practices, but they are not reducible to them — thus being relatively autonomous. Foucault states explicitly

that this formulation differentiates the concept of discourse from that of ideology in Marxism. Foucault is conscious of the inevitability of having recourse to causality and I believe that he attempts to formulate a kind of "interpretative causality," which he then had to distinguish from the non-interpretative causality of Marxism. In order to do that, he relates Marxism to a causality different from his own, and chooses to make it a strawman, the causality of Stalinist reflection theory (see Gros 1996: 51–54, 70, 75–76, 78, 94).

Foucault is not uninformed on Marxism. Since his youth, he oscillated between a Marxism along the lines of Georg Lukács and phenomenology, until, as he stated late in his career, he was able to trace his own course. Under the influence of Althusser, he became at the age of 24 a member of the PCF, but he left the Party after about two years. Nevertheless, until the end of his life he remained a left-wing militant (Gros 1996: 4, 7, 9; Merquior 1985: 20, 99, 101, 116). Foucault's recourse to reflection theory is only a strawman, because the type of causality he argues for, in a vague and interpretative way, was formulated lucidly in Marxist terms by Pavel Nikolaevich Medvedev and Mikhail Bakhtin (1978 [1928]: 18) when they state that the "ideological environment" is a "refracted reflection of real (i.e., socioeconomic) existence" and (for example) literature reflects only the ideological environment; and by Althusser and Balibar (1968: 120–125), who uses the concept of "structural causality" to indicate that the economic structure determines "in the last instance" the rest of the social structures: the latter derives from the former, but the derivation is multiply mediated, with as a result that, for example, ideology is "relatively autonomous." The unexplained discontinuities of Foucault's initial concept of *épistémè* are exactly the product of the lack of causality (for Foucault [1971: 58], continuity and causality are interrelated concepts), which alone would anchor the discursive in the material social processes.

According to Foucault, not only is that which is considered as an historical fact a discursive event and any history a history of ideas, but also any knowledge, just as the original discursive event, obeys semiotic factors. It follows that history, being a field of knowledge, is subject to the semiotic and it is thus subjective, a strong statement anticipated by Lévi-Strauss. The fact of the non-existence of facts, that is, the fact that the original discursive events cannot be anchored in any referential reality, as well as the fact that the historian is also bound by the discursive apparatus, destabilize any kind of objectivity of history. For Foucault, history no longer tries to understand by using a causality conceived as operating within the framework of some major external becoming (that is, as a function of a "grand narrative") — Foucault 1971: 54–55, 58, 61. Of

course, if history has no objectivity, the same conclusion holds equally for the work of Foucault himself (see also Frank 1989: 98, 124, 138; Merquior 1985: 147). And this observation is of general application to all neostructuralism (see also Merquior 1985: 159). Foucault adopts an *ex cathedra* position in his own work, but he asserts simultaneously in an interview that "Je n'ai jamais écrit que des fictions," a statement that Gros interprets as a rejection of the philosophical metaphysics of origins and ultimate truths in favor of political fictions (Gros 1996: 124–125). Robert Wicks, on the other hand, points to Foucault's defense of truth that follows this statement, and concludes that Foucault means that in his work, truth is expressed in the form of fictional discourse (Wicks 2003: 234). I would like to suggest that Foucault as a concrete person believed that he was uncovering historical truths, but his theoretical positions contradict this belief, whence the juxtaposition of fiction and truth in his interview. Thus, I tend to agree with Gros on this point. If, in accordance with the Nietzschean absence of any philosophical foundation of truth, we are ready to believe in the liberating powers of quasi-mythical narratives, i.e., in the power of credible fictions, then we should subscribe to this position. On the other hand, the narratives of bourgeois society are also mythical — how shall we judge who is the better storyteller?

The disappearance of any reference to a referent as reality in our new cultural condition is also central to Baudrillard's views. According to Baudrillard's early approach, the functional nature of objects is an illusion and their existence is a cultural myth. The separation between signs and reality is science fiction. The nature of objects is not to be the products of needs, is not pragmatic, is not to have a use value and then to be given a sign value, but inversely the reality referred to by the sign is only an effect of signification. The real object, the referent of the sign, is just part of lived experience, and objectivity is only a matter of consensus between subjects. Thus, denotative meaning does not refer to any reality, but is in fact the most subtle and ideological form of connotation, a fundamental point that Baudrillard takes directly from the later Barthes (1970: 16). Objects are strictly symbolic and their constitution as commodities is due to signs. Social exchanges obey a largely unconscious meaning attached to a system of communication, a system that has formal autonomy — the Levistraussian approach, as I have already indicated. This system, which actually produces subjectivity, is regulated today by the logic of commodity as exchange value and signifier (signifying use value). The new conditions of consumption define commodity as sign and signs, that is culture, as commodities. Baudrillard's political economy of the sign aims to be the theory of symbolic exchanges (Baudrillard 1972: for example, 7–8, 60, 112–113, 173–174, 177–178, 185–186, 188, 192–194).

The key concept that Baudrillard came to use later, *simulacrum*, is still attached to his negation of the existence of external referents. Until recently, according to Baudrillard, the object was a sign heavily loaded with signification by people, but today people no longer project themselves psychologically and mentally into objects. Today is the era of the simulacrum, in which simulation does not refer to a (supposed) referent, but generates a reality through models of reality, which thus is transformed into the hyperreal. Baudrillard opposes the concept of simulation to representation. Representation is founded on the principle of the equivalence of the sign with the real, while for simulation this principle is a utopia, as is reference itself. Ultimately, the very concept of representation is a simulacrum. In the era of the simulacrum, then, reality is dissolved and artificially contained within the sign systems, the signs of the real substituting for the (supposed) real. Like the referent, truth and causality no longer have any meaning. With the simulacrum, metaphysics collapses. For Baudrillard, there is an historical change, which he considers as decisive, from the era of representation to that of the simulacrum. In the era of representation, signs are connected to something considered as existing, while in the era of the simulacrum they are not connected to anything. Now, "production and consumption gives way to the "proteinic" era of networks," and this new era is the "hyperrealism of simulation," with television being its key instrument. What was previously experienced as metaphor is now projected on reality, without being felt as metaphorical, and replaces reality with a simulation of it. In this manner everything becomes communication, the analysis of which necessitates an extension of Marxism (Baudrillard 1981: for example, 10–12, 13, 16–17 and 1992: 151–153, 155).

Just as Derrida, Lyotard and Foucault, Baudrillard has frequent recourse to capitalism. According to him, capital historically was accompanied by the destruction of reference, reality, human goals, truth and the good, in order to replace them by the power of exchange. The new simulation and hyperreality are void of any principle and goals, and this void goes against the power of capital (Baudrillard 1981: 40). I will pass over this last optimistic, but wholly utopian, view, in order to concentrate on the contradiction that we also find in Derrida, Lyotard and Foucault: Baudrillard tries to dispense with denotation, reality, and causality, but capital is an extrasemiotic reality; the logic of commodity cannot generate itself, but must *be due* to something else, and the same holds for the passage from representation to simulacrum.

As we saw, when Baudrillard dismisses denotation he refers to the Barthes of *S/Z* (1970), where the latter does a detailed textual analysis of Honoré de Balzac's novella *Sarrasine*. This work is a nodal point of

two Barthes: the structuralist Barthes of the 1960s and the neostructural-
ist of the 1970s (see also Culler 1983: 83–84, 86, 88). On the one hand,
Barthes uses a scientific structuralist methodology, with which he aims to
analyze and understand how meaning is created in the novel with the use
of codes. On the other, in the very beginning of the book, Barthes (1970:
9–10) takes the position that the quest for structure is undesirable, the
matching of text and structure is forced, and the scientific treatment of a
text is in-different. He counterproposes the quality of a text to generate
differences, which goes against its uniqueness and closed nature. Far
from looking for the uniqueness of the text, we must place it within the
network of differences that constitute it. At this point, Barthes meets the
Derridian freeplay of the text and turns his back on the classical structur-
alist project.

The early Barthes, the structuralist, has a conception of the relation be-
tween *sémiologie* and linguistics that is different from that of Saussure.
For Saussure, as we saw, linguistics is part of the future science of *sémi-
ologie*, while Barthes's *sémiologie* is a "*trans-linguistique*," because, for
him, language supports all systems of signs of a certain range and with
an actual sociological depth. This semiotic language does not coincide,
for Barthes, with the linguists' language, because it is a second language,
the units of which are discursive and larger than the linguistic units.
Barthes is explicit that Saussure's thesis must be reversed and it is *sémio-
logie* that is part of linguistics. While Lévi-Strauss cautioned against the
identification of anthropological with linguistic structures, Barthes be-
lieves that his *trans-linguistique* will be able to unify research in anthro-
pology, sociology, stylistics, and psychoanalysis, leading to a general
knowledge of what is intelligible for humans (Barthes 1964a and 1964b:
92; Harris 2001: 133–136; Culler 1983: 70–71).

We should note here that on the matter of psychoanalysis Barthes
agrees with the view expressed more than ten years earlier by Lacan.
Indeed, on the occasion of his discussion of the unconscious nature of
langue, he makes reference to both Lacan and Lévi-Strauss concerning
their idea of the unconscious as structured by forms, not contents; an
idea that he understands not in a Levistraussian, but in a Lacanian man-
ner, as indicating that the unconscious must be described "par ses signifi-
ants plus que par ses signifiés" (1964b: 98), a view that will be character-
istic of the later Barthes. On the point of the relationship between
sémiologie and linguistics, Barthes's program is thus not Saussurean, but
instead it has a close predecessor in Lacan and a more distant one in
Hjelmslev. In fact, the latter's "general science of semiotics" has the goal
of unifying all semiotic and monoplanar systems, from literature, art, and
music to the sciences and to logic and mathematics, under an umbrella

which would be, in the broad sense, linguistic (Hjelmslev 1961 [1943]: 20, 78, 101–109).

The later Barthes departed radically from the conception of *sémiologie* as a science. Jonathan Culler is right in pointing out that the later Barthes, contrary to his earlier statement, considers semiotics as the undoing of linguistics, in the sense that it studies the phenomena of signification that linguistics leaves out (cf. Kristeva 1975: 48–49). Culler also notes that Barthes sees this semiotics as a perspective that questions the established disciplines, and, since semiotics had become such a discipline, Barthes's semiotics moved away from the orthodoxy of "a science of signs to an activity on its margins." Indeed, it is not only marginal, according to Culler, but also inimical to the semiotics of the early Barthes. Already in 1971, Barthes, as the same author reminds us, referred dismissively to his own early work, confessing that all he had was just "a euphoric dream of scientificity," and rejecting the possibility of a scientific semiotics on the grounds of the priority of signifying over a defined signification (cf. Kristeva 1975: 52). The focus of this later Barthes is, for Culler, the phenomena of meaning that resist the scientific approach. In respect to Barthes's public image, this apparent demystification of his previous work contributed, for Culler, to a remystification and led to the creation of a Barthesian myth. Independently of that, he believes that Barthes was energetically involved in enterprises that may be incompatible, but are nonetheless valuable (Culler 1983: 15–16, 70–72, 76–77).

In *S/Z*, the scientific Barthes locates five codes, which are, for him, the major codes of the novella, but also the only codes that integrate the whole text. He observes that they are delivered by the text from its very beginning, in its title and first sentence, and although he refers to this as a chance event, he also questions the chance factor (Barthes 1970: 23–27). I believe that Barthes is absolutely right in this questioning. In a study of spatial, more specifically regional, oral discourses of a sample of 144 interviews with inhabitants of Northern Greece, Karin Boklund-Lagopoulou and I observed that there is generally a very significant statistical correlation (in half of the cases the level of significance was .0000) between the frequency with which a particular code is used by a speaker (whence the dominant codes of discourse) and its order of appearance in his/her discourse. As we write: "[T]his discursive regularity is so insistent and multifaceted that it presents itself as a national — we dare say universal — rule. The issues that a speaker first addresses are also the issues to which he or she tends to return most often in the course of developing his/her micro-discourse, and vice versa" (Lagopoulos and Boklund-Lagopoulou 1992: 225–227). The feeling of Barthes, based on one case study of a (written) literary text and a qualitative methodology,

is corroborated statistically in our study of the oral discourses of a wide sample of individuals.

In a manner reminiscent of the above rule, Barthes exposes the key ideas of his neostructuralist project in the first two pages of *S/Z*. As I mentioned above, he starts with the concept of difference and he opposes it to the uniqueness of a text. Then he passes to the issue of the value and evaluation of a text. He states that evaluation cannot come from science, which is descriptive — we recall that structuralism is strictly against any kind of evaluation — nor from the ideological value of a text, because ideology is a value of representation (merely incorporated in the text) that does not follow from a practice of productive writing. By this latter concept Barthes means that good literature today, literature as labor, transforms the reader from a simple consumer to an active producer of the text. This kind of text becomes "writerly" (*scriptible*), as opposed to the passive "readerly" (*lisible*) text of classical literature. The readerly text condemns the reader to passivity and seriousness, and prevents him from playing (a playing which is a writing as linguistic labor — Barthes 1970: 17) personally with the text and having full access to the magic of the signifier — the Lacanian thread which unwinds from the early Barthes.

Evaluation versus scientific analysis, elimination of the original meaning of the text and "death of the author," that is, the emptying out of the meaning of the text and its transformation into signifiers that may be filled by the reader, differential qualities of the text, apotheosis of the reading practice, of the consumption of the text, and pleasure: this is Barthes's neostructuralist project. In the next few pages, Barthes further extends on this project, without, however, losing touch with structuralism. The writerly text follows a productive, not a representational model, it is a constellation of signifiers, not a structure of signifieds, this is why it cannot be subject to any kind of criticism, which simply multiplies it (cf. Derrida's negation of metalanguage). This kind of text, liberated from whatever is external to it and from any demand for totality, is a production, not a product as is the readerly text. In his rejection of the factors external to the text, causal explanation of it included, and his demand for immanent reading, we recognize Barthes's structuralist self (see also Barthes 1966: 54–55; Culler 1983: 62–63, 68). Barthes adds that even readerly texts can be approached and interpreted in the Nietzschean sense, that is, without ascribing to them a specific meaning, but by showing their polysemy. A modest instrument for approaching polysemy would be Hjelmslev's connotation, without forgetting that the hierarchy posed between denotation and connotation is questioned by (Barthes's) semiology, because such a hierarchy would anchor the meaning of a text in the center

that is denotation as truth, following the centralized nature of Western discourse (once again, Barthes encounters Derrida).

On the author, Barthes adopts both a sociological and a semiotic point of view. In the context of the first, he argues that in literature the author as individuality is a correlative of positivism, the latter representing the culmination of capitalist ideology. From the semiotic viewpoint, the existence of the author provides a final signified (Derrida's center) that limits the text and closes writing. But the identity of the author (as authority and Father — Barthes 1970: 217) is destroyed by the practice of writing; by this practice the author disappears as the origin of the text and finds his/her own death. Barthes believes that linguistically the author is just an instance of writing and substitutes language for the author as source of the text. Once the author is removed, the modern literary text is transformed (and becomes writerly), and its ''scriptor'' appears only as a function of the text, not as a producer antecedent to the text. The modern scriptor marks with his/her hand, not voice, and his/her practice is one of tracing, not expressing. S/he ought to know that so-called expression implies an infinite regression through words, and s/he only uses an immense dictionary, without having any impressions and feelings.

Barthes sees the text as a non-original intertextual space mixing different borrowings, as a tissue of ''signs,'' and a pretension of imitation, which, however, is infinitely deferred. Structures may be located in the text, but they are not anchored anywhere (once more Derrida). Thus, ''writing,'' a term with which Barthes wants to replace ''literature,'' does not seek any ultimate meaning of the text or of ''the world as text'' (cf. objectivity and subjectivity ''sont des imaginaires'' — Barthes 1970: 17) — but, then, how is it possible to hold a sociological viewpoint on the author and on positivism as the *products* of capitalism? — a viewpoint that Barthes declares anti-theological and revolutionary, because ''to refuse to fix meanings is . . . to refuse God and his hypostases — reason, science, law.'' The focus of the text seen in this way is the reader, not the author, a reader who is not a specific person but an instance, just as the author is (for the above, see Barthes 1988).

The move from a meaningless text to the reader is not new for Barthes, because he held a similar position in his structuralist phase, but in this continuity there are two major discontinuities: now the text is continually deferred, then it was constituted by abstract structures; now the reader is an abstract instance, then a range of meanings was attributed to the structures (this is why Barthes considered the literary work as an ''open work,'' also referring on this point to Eco) by the cultural reading conventions of reader*s* belonging to different social groups and epochs (cf. Barthes 1966: 49–56, 61; Culler 1983: 68).

As we saw above, the play with a text is, for Barthes, effected with the intermediary of the signifiers. The materiality of the signifiers liberates (the inexhaustible) *signifiance*, indicating "meaning in its potential voluptuousness" (Barthes 1977: 184), which is identified with pleasure (*jouissance*), a pleasure that is not addressed to the mind, but to the body; also, pleasure is created by the encounter of the text with the body (cf. Kristeva 1975: 51). Thus, to "analyze" a text goes back to the body. Barthes (1977: 181, 182) identifies *signifiance* — a concept that Kristeva (1969: 10–11) uses as central in her "semanalysis" to indicate the linguistic work producing "the *seeds* of what will *signify* in the presence of language" — with another concept proposed by Kristeva, the geno-text, which is for her, as for Barthes, the signifying productivity generating the pheno-text (a biological metaphor, as is the geno-text), which she sees as a signifying structure (Kristeva 1969: 182–183 and 1975: 50). Culler observes that with this view Barthes attempts to give a materialist account of reading, trying to avoid the Cartesian *cogito*, the mind. In fact, for Barthes, the body is not the bearer of a subjectivity, a consciousness — remember the structuralist death of the subject — but an historically constituted "individual," and becomes an enjoying body with its own experience (Culler 1983: 92–96).

The bodily pleasure due to a literary text may be also produced, according to Barthes, by another body as such. Culler (1983: 94–95) reminds us of Barthes's listening to a Russian cantor (see Barthes 1977: 181–182): "something is there, manifest and stubborn ... *beyond (or before) the meaning of the words* ... something which is *directly the cantor's body*, brought into your ears ... from deep down in the cavities, the muscles, the membranes, the cartilages, and from deep down in the Slavonic language, as though a single skin lined the inner flesh of the performer and the music he sings" (my italics). So, a meaningless climactic bodily pleasure (cf. the later Foucault) is created, independently from the communication circuit and through an "erotic" relation (Barthes 1977: 182, 188), by a meaningless, but nevertheless signifying as a pure "signifier," material body. The body does not act as a linguistic source, at least in the Saussurean sense, and we understand that what Barthes calls the materiality of the signifier in a literary text, which does not participate in the domain of signs, is of a different, "bodily," nature. Barthes's theory of *trans*-linguistique was transformed to a theory of *"trans-signifiant,"* and this theory amounts in the last instance to a dangerously biologizing theory of the *"trans-corporel."*

Culler (1983: 96–97) justifiably observes that this appeal to the body has limited explanatory power and is accompanied by the danger of mystification. Nevertheless, the interest shown in the body by Barthes, as well

as by Foucault and Kristeva, had a remarkable impact on postmodern theorizing. Kristeva is more cautious on the matter of the subject, because she does not reject it, and conceives of the "speaking subject" as divided into an unconscious and a conscious part. The first part includes bio-physiological processes, namely the Freudian drives, and the second the meaning systems and the (identity of the) historical subject, which is constrained by socio-historical factors (a view based on Marxism — Kristeva 1975: 50, 54–55).

In my opinion, when mystification is already present, there is not just a danger of mystification. Culler is understandably sympathetic to Barthes and generous in trying to value the work of the later Barthes. But, if we adopt an objective stance, it is difficult to agree with him on this matter, even more so because Barthes himself gives the reference point of his new self. He states that he is in line with the "prehistory of modernity," and he agrees with the views on language of Mallarmé, and the downgrading of the author and the centrality of automatic writing of the Surrealists (Barthes 1988: 147–148); he identifies the pleasure of a text with "drifting" (*dérive* — Barthes 1973: 32–33), which is a situationist term indicating a psycho-geographical wandering in urban space; he relates the avant-garde with a writing coming from the body and not ideology (see Culler 1983: 96). We know that the later Barthes rejected science, now we see that he is in fact just waving the flag of a new modernist avant-garde artistic movement (cf. Kristeva 1975: 52), adopting an interpretative, but logically inconsistent and philosophically incoherent discourse which Norris (1982: 112) describes as "flights of strange but meticulously argued fantasy." Something positive, nevertheless, remains: the quest for a semiotics of feelings, of passions earlier posed by Kristeva (1975: 48, 51, 52) and also later pursued by Greimas the structuralist, who in his late phase shook the binarism of structuralism. But feelings are *signs* and they are *communicated*.

The theoretical connection of Barthes to surrealism is far from being superficial. Another striking example of this relation is Lacan, who was in close contact with surrealism from before the War. His emphasis on language, phantasy, paranoia, and the formal character of symptoms is deeply in harmony with the nucleus of surrealist interests (Turkle 1992: 102). To take another example, Baudrillard's contemporary hyperrealism of the simulacrum is a description of a culture matching the surrealist credo (Wicks 2003: 15). In order to show that these connections of neo-structuralism to surrealism are not impressionistic, a closer look at surrealism seems necessary.

The history of surrealism is related to the Dada movement, which was founded in Zurich, Switzerland, at the end of 1915. Its forerunner was a

French artist, Marcel Duchamp, and the movement in turn influenced France. Reacting against World War I, the Dadaists conceived of European culture as supported by rationality, science, and technology, aiming at order and systematicity, and leading to war and alienation; they, thus, believed that European values were not worth retaining. The Dadaists rejected rationality and ultimate truths, fought any positive thesis, were self-contradictory, even denied their dadaism, and did all this with a playful skepticism. Their poetry was nonsensical, and they staged performances conveying an image of chaos, fragmentation, and pastiche. While the first manifestos of the Dadaists were against Freud, they later considered psychoanalysis as subversive, because it professed a wild, chaotic, non-rational creativity of the unconscious (Wicks 2003: 9–13).

André Breton, the major figure of surrealism, retained the principal ideas of Dadaism although after 1922 he distanced himself from the movement. For Breton also, the unconscious, free from social constraints and moral norms, was a revolutionary force against established values. He saw in Freud's view of dreams and the psychoanalytic technique of free association a foundation for artistic expression, and thus automatic writing, which was considered to be attached to psychic automatism, became central for the Surrealists. In addition to the quest for artistic originality, Breton's vision of the world aimed at a ''surreality,'' at surpassing the oppositions reality versus phantasy, rational versus irrational, life versus art. During its first stage, surrealism thus revolved around psychoanalysis, but by the end of the 1930s Marxism came forcefully into play. In Russia, there were two opposed camps concerning psychoanalysis. In addition to the anti-Freudians, there existed a Freudo-Marxist camp, which attempted to reconcile with the materialist Pavlovian psychology a Freudianism that it wanted purged of idealism. The French Surrealists are comparable to the Russian Freudo-Marxists, in spite of their marked differences, in that both created a similar Marxist-Freudian movement. Revolution through language, sexual revolution, and social revolution became for surrealism inseparable principles. During World War II, surrealist activity was transplanted to the U.S., where it later had an impact on certain forms of pop art (Wicks 2003: 13–14; Roudinesco 1990 [1984]: 38–41, 54).

A kindred movement to surrealism was that of the Situationist International, the major figure of which, Guy-Ernest Debord, was nourished in his youth on surrealist ideas. Debord was initially a follower of Jean-Isidore Isou, the young and ambitious founder of the Lettrist Group. Later, he left this group and co-founded the Lettrist International, which was followed by the Situationist International (1957–1972). In the first manifesto of the Situationist International, written by Debord, he is sym-

pathetic to but also critical of dadaism and surrealism; he attacks the capitalist system and calls for individual freedom and creative expression. Following Sartrean existentialism, the main aim of the Situationists is the conquest of everyday life through the experience of special situations, an experience that they link, on the one hand, to architecture, and on the other, to the city and its streets, with as a result the idea of the actual recuperation of the city. The means for this experience of the city is, according to them, drifting. The Situationists were against the division between high and low architecture and argued for the free mixing of architectural forms.

Now the active forces in the streets of Paris in May 1968 were surrealism and the Situationists. Sherry Turkle observes that May 1968 was full of Lacan and that many of the slogans and graffiti of the time were surrealist with a psychoanalytic content, expressing the desire to surpass the divisions reality-phantasy and rational-irrational, and to live experientially. As Turkle writes: ''To many observers, May seemed to be a kind of surrealism-in-political action.'' She also notes that from May 1968 on, Lacanian psychoanalysis and surrealism were strongly connected in France (Turkle 1992: 65, 68, 84, 86). May 1968 contributed with this sort of cultural and political ambiance to the rising neostructuralism.

As I was finishing this text, I came upon the penetrating book on modern French philosophy by Robert Wicks and discovered a significant convergence of our views on the matter of the formative influences on neostructuralism. Wicks goes further back in time from May 1968. According to him, dadaism and surrealism had a strong impact, still underappreciated, on French philosophy and the whole of French thought of the twentieth century. He points out the influence of the anti-establishment attitude of the Dadaists on Gilles Deleuze and Félix Guattari, on Barthes, Derrida, and Foucault; and of the Surrealists on the three latter concerning the artificiality, fragility, and changeability of norms in society. To these two sources of influence on neostructuralism, Wicks adds a third one, existentialism, which he sees as being transformed by its contact with Saussurean linguistics. According to him, existentialism is behind the views on the multi-dimensionality of language and the endless deployment of meaning held by Lacan, Derrida, Barthes, and Lyotard; in fact, he finds the influence of existentialism on them so strong that he calls them ''linguo-existentialists'' (Wicks 2003: ix–x, 11, 14–16, 295–296, 298).

Although neostructuralism actually emerged shortly before 1968, May 1968 played a catalytic role in its formation, through the ideas that were circulating in the amphitheaters and the streets and their political implications; a fact acknowledged, for example, by Lyotard, who considers that

this period eroded the grand narratives seeking truth in history (see Norris 1990: 28). This is why we find its decisive imprint on neostructuralism, the process of engendering of which had already started. We can now, on the basis of the above discussion, complete Frank's influences on neostructuralism by a closer look at Marxism and Freudianism. Frank refers to the Frankfurt School of Marxism, but we have just located both a surrealist Marxism and the Sartrean existentialist Marxism (which starts from the phenomenology of Husserl, the main inspiration of Heidegger). In both cases, there was an integration of Freudian ideas, and the first case represents a clear Marxist-Freudian amalgam. With May 1968, Lacanism, the French version of Freudianism, became the kind of psychoanalysis that dominated the neostructuralist scene. Frank mainly concentrates on the first-hand German influences on the latter and on the German tradition. But, if we make abstraction of their first foundations in German-speaking authorities, both surrealism and Lacanism ''Gallicized'' their sources of inspiration. Thus, we may add this Gallicized line of thought to the German line.

4. Theoretical "postmodernism": The neostructuralism of the U.S.

The review of the key neostructuralist authors I attempted above had a double aim: to show the continuities and discontinuities between neostructuralism on the one hand, and structuralism and the Saussurean tradition on the other, as well as to present the convergences between, but also personal orientations of, these authors. I hope that I was thus able to present the main axes structuring the theoretico-philosophical formation of neostructuralism and to clarify in this manner its main agenda. I hope that it will become clear that this agenda and this alone was fully replicated by postmodernism in the U.S. (see also Hollinger 1994: 80), but also adapted and to a certain degree reinterpreted in the context of local cultural phenomena and habits of thought. This fact, and that of the continuity between structuralism and neostructuralism, lead me to replace the term "postmodernism" by *neomodernism*, a theoretical position moreover in line with my corresponding conclusion in the first section. Although, as I stated in this same section, my central concern is postmodern theorizing and not postmodern culture as a whole, I shall start here with a discussion of the latter, because the theoretical need to understand its new and provocative aspects has been a crucial factor in the adoption of neostructuralism in the U.S.

A very informative account of so-called postmodern culture, which we have already referred to repeatedly but which deserves to be presented

more fully, is that given by Huyssen (1988). Huyssen differentiates between a postmodernism of the 1960s and even 1970s, and another of the 1970s and early 1980s. The first period witnessed a reaction against the austere codification of high modernism, not against modernism as such, and the emergence of a specifically American movement (around ''the Duchamp-Cage-Warhol axis''), which tried to revitalize the tradition of the European avant-garde and make a rupture with the past. This movement presented two aspects, one that felt the evanescence of the previous virility, centainties, and values as a loss, and the other that celebrated the liberation of consciousness and instinct — the same messianic vision of today's neomodernism. According to Huyssen, in spite of the relationship of this movement to the European avant-garde, it could not emerge in Europe, because of its specifically American character. This movement succeeded in fundamentally altering the conception of modernist culture itself. Huyssen locates four major traits of the movement: the feeling of crisis and conflict, and of the future and new frontiers; the faith in a new technological aesthetics, based on television, video, and computers; an iconoclastic attack against art institutions and high art, which is typical of the European avant-garde; and the counterposing of mass and popular culture to high art (I recall here that for structuralism all texts, ''high'' or ''low,'' are equally texts), accompanied by ideas — such as a ''post-white,'' ''post-male,'' and ''post-humanist'' world — tied to the critique of Eurocentrism, the very same critique we encountered in Lévi-Strauss. The synthesis between mass or popular culture and high art is, according to Huyssen, one of the major differences between high modernism and the art and literature of postmodernism, both in the U.S. and Europe.

The postmodernism of the second period is, for Huyssen, of a different nature. Already in the 1970s we encounter ''a genuinely post-modern and post-avantgarde culture.'' The provocative artistic forms were exhausted, deprived of their avant-garde character through commercialization, and technological optimism gave way to critical assessment. Artistic eclecticism, borrowings from any kind of culture — modern, high modern, mass culture or popular culture, pre-modern or non-modern — become the letter of the day and the cultural domain is utterly fragmented. In the late 1970s, the artistic migration from Europe to the U.S. is reversed and the term ''postmodern,'' popularized by the Americans, passes to Europe (Huyssen 1988: 184, 188–197).

We find again and again the description of the same traits in all accounts of neomodern culture. Such an account is given by Chris Barker on the occasion of his comprehensive discussion of cultural studies, a domain which today occupies a major position within social theory. I would detect two main axes in his account. The first is reflexivity, understood

as the participation in a range of discourses and the further construction of discourses relative to them. We should relate reflexivity to the neo-structuralist position stressed by Barker, with reference to Foucault and Lyotard, that there is no possibility of knowing the world independently from language, whence he emphasizes the lack of universal standards for thought, truth, and action. Reflexivity leads, for Barker, to three other traits of postmodern culture: irony, because of the reflexive exploration of the conditions and limitations of our own culture and knowing, which expresses the feeling that nothing new can be invented but we can only play with what already exists; the playful self-construction of multiple identities; and the recognition of the rights of any kind of "other."

Barker's second axis concerns three different, but related, kinds of mixing concerning literature and the arts: mixing of high and low culture, indeed the surpassing of this opposition altogether; an historical mixing, central to postmodernism, through "bricolage" involving the rearrangement and juxtaposition / montage of signs that were historically unconnected in order to produce new meanings; and a mixing of texts, genres, and styles, as the result of self-conscious intertextuality. It is obvious that the paradox and ambiguity that he refers to are the products of these operations. According to Barker, the collapse of the boundaries between high and low culture, in combination with the preponderance of the visual in postmodernism, have resulted in an aestheticization of everyday life (Barker 2000: 199–203, 207–211, 214).

Architecture played a pioneering role, according to Huyssen (1988: 184–185), in the second period of postmodernism. He thus agrees with Jencks, who gives priority to architecture as the first definite manifestation of artistic postmodernism that he dates to 1975, adding that by 1980 the movement was already widely accepted. The views of Jencks, an architect, on postmodernism in general and postmodern architecture in particular are practically identical. He poses as the foundational concept of postmodernism, which he considers as a continuation but also a transcendence of modernism, the concept of pluralism, understood as opposition to the traditional and modernist totalizations of a single world view, the acceptance of difference, and the valuing of the local and the particular. But, for him, because the suffix "modern" is attached to "international," the tension between pluralism and the universal leads to something "hybrid, mixed, ambiguous," which he calls "doubly-coded" (cf. intertextuality). Postmodernism is not oriented towards the resolution of contraries, but endorses pluralism and eclecticism. In postmodern architecture, Jencks sees a combination of high and low culture and the appearance of an historicist dimension (we recognize here two aspects, pluralism and intertextuality, the second serving among other things as a vehicle for

identity). He also refers to its orientation towards meaning (the unifying factor of postmodern architecture, which is also the neostructuralist platform). The postmodern opposition to unifying theoretical schemes has led postmodern art and architecture, according to Jencks, to dissolve traditional harmony and fracture beauty, thus producing "disharmonious harmony," "dissonant beauty" and a fragmented work (Jencks 1992: 11, 12–15, 24–29).

The description of the main traits of neomodernism and neomodern architecture by Jencks shows a strong convergence with the views of Fredrick Jameson. However, there is also a marked divergence in evaluation: Jencks exalts neomodern architecture, while Jameson criticizes it. While Jencks uses pluralism as a key word, the main concept of Jameson's analysis is depthlessness, simulacrum. Jameson argues that depthlessness marks both postmodern theoretical insights and a totally new culture of the image, of the simulacrum. In this new condition, consumer demand is oriented not towards reality but towards images of reality. Consumers demand "spectacles," a situationist term. As we saw above, the concept of "situation" originated in Sartrean existentialism; Debord pleads for the construction of situations, each one being a totality of impressions that determine quality in a moment of time.

According to Jameson, a consequence of this new depthlessness, flatness, or superficiality is the weakening of historicity. In the arts and architecture, the high-modernist ideology of style having collapsed, postmodernism turned to the historical styles, but in a historicist mode; the result is "the random cannibalization of all the styles of the past, the play of random stylistic allusion." Postmodern architecture for Jameson exhibits eclecticism, pastiche, and a peculiar kind of nostalgia (for an opposite view, with which I do not agree, see Hutcheon 1988: 93–94, 203), out of touch with the past as "referent" (his quotation marks) and without genuine historicity. Today, the work of art is no longer unified or organic, but is heterogeneous and discontinuous, the product of an operation of collage (cf. grand narrative versus small narratives). In spite, however, of this negative critical approach, Jameson accepts the reality of postmodernism, conceives of a mutation of built space into a hyperspace, sees postmodern architecture as an attempt to express the latter, observes the inability of our perceptual equipment to deal with it, and urges us to deal with the postmodern condition (Jameson 1984: 58, 60, 65–66, 75, 80, 83, 88, 91–92).

The oppositional character of neomodernism to modernism cannot pass unnoticed. Hassan (1987: 91–92) presents a list of the oppositions between the two, though he moderates it by adding that the oppositions are insecure and there are many exceptions on both sides, they may shift,

be inverted, even collapse. Jencks radically disagrees with the traits attributed by Hassan to postmodernism, pointing out their near-total antithesis to the developments in postmodern architecture, and he considers that they were inverted by John Barth and Umberto Eco. He proposes a two-column list, taking care to point out that the columns do not represent binary oppositions, but the postmodern is the complexification, hybridization, and rejection of (which is an opposition to) the modern (Jencks 1992: 21, 33–35). A comparable view is held by Linda Hutcheon, who states that she accepts simultaneously the oppositional approach and the continuity approach, and believes that postmodernism questions both oppositional terms of the former approach by using, abusing, and subverting them. For Hutcheon, postmodernism does not aim at a kind of a superior dialectical synthesis, but is content to remain with the management of contradictions, a conception that she finds both close to and distant from Marxism. In this manner, it does not offer answers and should not, because it is animated by an anti-totalizing ideology (Hutcheon 1988: 21, 49–52, 209, 213–214, 231). I would put it somewhat differently: for me, neomodernism is a totalizing ideology of anti-totalization, and its refusal to offer answers is an avoidance of political responsibility.

We see that for Hutcheon, just as for Jencks, the foundation of neomodernism is to be found in contradictions or oppositions, respectively, within a continuity-discontinuity context. This rationale is open to two remarks, both stressing the continuity between modernism and neomodernism. Lyotard identifies this continuity in his discussion of art: he considers artistic postmodernism as just one aspect of modernism. He argues that every new trend in art in the context of modernism springs from a reaction to a previous trend; thus, each trend has the character of the postmodern. Because of this, postmodernism is not the end of modernism but modernism itself in a new emerging state; the quality of modernism presupposes that of postmodernism (Lyotard 1992: 147).

It should already be clear that, for me, the continuities between modernism and neomodernism are far more important than the discontinuities. My first argument in support of continuity follows from the observation that the transitional period to neomodernism has been historically too short for a radical paradigm shift to occur. Even if the end result of the present changes is destined to be a total break, it would only be possible to refer today to a *tendency* towards a rejection of modernism, which of course at such an early stage of transformation would not be free from modernism itself. Besides, the very fact of opposition imprisons the opposing term within the general logic of the term to which it is opposed. Second, in the context of a real paradigm shift, the set of phenomena which is rejected cannot be replaced by a systematically corresponding

set, that is, by phenomena corresponding one-to-one to the previous phe-nomena, because the logic of the new system has changed. The transcen-dence of modernism is an abstract and/or rhetorical idea; opposition is closer to the actual situation. And an opposition of neomodernism to modernism implies, as I just argued, an indissoluble connection, despite their differences, of the former with the latter and the lack of any para-digm shift. This, however, is not the only element of continuity between neomodernism and modernism. There is also another kind of continuity, which I shall now discuss, based on the analysis of the historian of ideas Françoise Choay.

In her analysis of nineteenth- and twentieth-century texts (up to 1964) concerning the city, Choay concludes that these texts can be grouped ac-cording to two major models traversing both centuries, a ''progressivist'' and a ''culturalist'' model. The progressivist model, by far the most fre-quently applied in urban practice, was founded during the twentieth cen-tury on the idea of modernity. From its beginning, it rested on faith in ra-tionalism, science, and technology, was oriented towards the future, and was dominated by the idea of progress. It organizes urban space by segre-gating its functions (something which later took the form of functionalist zoning), with the goal of efficiency (transposing to the urban space of the twentieth century the Fordist model of factory organization); thus, the progressivist model professes an instrumental city. It is open: the city is not given precise limits and spreads into the countryside; it integrates open and green spaces, due to the primary importance attributed to the health factor. In the twentieth century this model promoted a geometrical and rational aesthetics, based on orthogonality and rejecting the curve. Revolving around the idea of the universal man, it privileges standardized housing.

The culturalist model, on the other hand, turns nostalgically towards the past. It draws its inspiration from the ''organic'' city of the past, the ancient and mainly the medieval city as a human group. It is anti-industrialist and emphasizes the cultural dimension of the city and, in the twentieth century, interpersonal relations. It prescribes for the city a moderate size and precise limits, and contrasts it to nature, as the cultural phenomenon that it is, aiming at creating an atmosphere of urbanity. It rejects rigid geometry and calls for irregularity and asymmetry. It empha-sizes the uniqueness of each individual and privileges community and cul-tural buildings (Choay 1965: 15–44).

Choay, comparing these two models, points out their systematic opposition. It is possible to rediscover this opposition on a higher level, if we identify the affiliations of these models to broader cultural (sub-)formations of the Western world. In fact, it is evident that the

progressivist model is just one of the aspects of the project of the Enlightenment, while the culturalist model is a byproduct of Romanticism. By mere abstract reasoning, we arrive at the conclusion that, since neomodernism is more or less opposed to modernism, both in general and in the field of architecture more particularly, and the romantic urban culturalist model is opposed to the modernist progressivist model, then architectural neomodernism must be somehow connected to Romanticism. On a more concrete level, the major traits of the culturalist model — the past, nostalgia, culture, identity, free form — are also major traits of neomodernism. Thus, not only is spatial neomodernism tied to modernity by its very antithesis to modernism, but it is also attached to modernity by showing a close affinity with the rival of modernism *in* the modern era, romanticism. Spatial neomodernism, then, is not only neo-modernism, but also a kind of neo-romanticism, admittedly with its own specific historical character. This conclusion does not come as a surprise, since as we saw in the third section above, Franck holds a similar view for theoretical neostructuralism and neomodernism.

Let me now pass from culture to cultural theory and start with the transmission of neostructuralism in the U.S., which started after the mid-1960s. Huyssen observes that in the U.S., in the late 1970s, a theoretical discussion began concerning the interface between the local tradition of postmodernism and French poststructuralism as understood in the U.S.; he points out that it was frequently based on the assumption that the avant-garde in theory must in some way be close to the literary and artistic avant-garde. Huyssen also observes that poststructuralism during the 1970s had a profound impact on the arts, both in Europe and the U.S. He does not assess this impact as really postmodern, because he considers that poststructuralism is in reality modernist, a theory of modernism and modernity (as in my view poststructuralism is in reality neostructuralism). According to Huyssen, poststructuralism is marked by the very modernist aestheticism that in the U.S. it is considered to have transcended; despite its more political wing, this characteristic, autonomizing the text and detaching it from history and society, in combination with institutional pressures has removed in the U.S. whatever political dimension could be found in French poststructuralism. Finally, poststructuralism is not informed about postmodern art and thus it cannot be related to postmodernism. However, Huyssen locates the postmodern within poststructuralism in the reinterpretation of modernism in the context of contemporary discourse, a discourse which is aware of the limitations and political failures of modernism (Huyssen 1988: 169, 171, 175, 207–209, 214–216, 218).

The incompatibility between poststructuralism and "real" postmodernism can be compared to the argument of Bauman, discussed in the first

section, according to which the differences between postmodern and modern societies, reflected in postmodern culture, are so profound that they necessitate a new sociology of postmodernity, as opposed to a postmodern sociology integrated into postmodern culture. The difference between Bauman and Huyssen is that Baumann conceives of a close connection between existing postmodern sociology, which as we shall see is neostructuralist, and postmodern culture, while Huyssen believes that there is no correspondence between the two. Huyssen is not explicit about the character of what he considers as the really postmodern arts; when he turns to the description of the constitutive factors of postmodern culture, he refers to the challenges to imperialism, the women's movement, ecological sensibility, and the awareness of non-Western cultures and otherness of any sort (Huyssen 1988: 171–172, 219–221), but these factors do not illuminate the presumed other nature of the really postmodern arts, which "will have to be," for him, a "postmodernism of resistance." We see then that in reality the artistic forms and the theory Huyssen seeks for are still waiting to be realized, and his views are normative rather than descriptive.

The fact is that the close analogies between French neostructuralist theory and American neomodern culture led to neomodern theorizing, which is nothing but the Americanized form of French neostructuralism. I will give one example, drawn from the field of literature, of this incorporation of neostructuralism into neomodern theorizing, as well as of the proximity of the latter with neomodern culture, by referring once more to the theoretical views of Linda Hutcheon. According to Hutcheon, postmodernism is in accord with Lyotard in questioning centralized, totalized, hierarchized, and closed theoretical systems, but it does not intend to destroy them, a position that seems to represent a recession from Lyotard's strong position. In the context of such recessions from neostructuralism, Hutcheon seems not to deny the possibility of historical knowledge, with the reservation that she believes such knowledge is provisional. In respect to history, postmodernism need not show any radical relativism or subjectivism. Nevertheless, her argumentation revolves around the strong neostructuralist position, to the extent that she speaks about the indeterminacy of historical knowledge and equates it with fiction on the grounds that both are discourses. The rationale for this equation is the (accurate) observation that past events do not have meaning in themselves, but they acquire it through systems of thought (cf. Foucault). Since systems of thought are, for Hutcheon, human constructs, theory gives way to intertextual play. Thus, history is a discursive reality and reality itself is a human construct.

Concerning the field of literature, Hutcheon argues that what she calls historiographic metafiction shows that language refers to something that

is a textualized and contextualized referent, and reveals itself as a construction by stressing the context in which it is produced. Together with the emphasis on the reader (cf. Barthes), historiographic metafiction contextualizes the whole of the communication situation of the production and reception of the text, extending to wider social, historical, ideological, aesthetic, and intertextual contexts. Contextualization is critical by nature, due to its ironic relation to past and present. This kind of postmodern novel rightly refuses, for Hutcheon, the separation between fictional reference to and scientific description of the past. Referent and reality are not given but are mediated by language. At this point she comes to the support of Derrida concerning his "il n'y a pas de hors-texte," using the contradictory argument that Derrida does not deny the real world, reference, or the access to an extratextual reality, but points out that meaning is derived solely from within texts through deferral, *différance*. Hutcheon argues that historiographic metafiction does not negate the existence of past reality, but asks questions about our knowledge of it, and is aware of the textual nature of this knowledge; for her, this kind of questioning simultaneously opposes and rejoins Marxism. Historiographic metafiction does not devalue the referential function, but renders problematic both the assertion and the denial of reference.

According to Hutcheon, postmodernism in general — as is the case with historiographic metafiction — would not "liquidate referentials," but puts into doubt the traditional realist transparency, as well as the Baudrillardian reduction of reality to simulacrum, i.e., the radical substitution of signs for reality. Postmodernism in general, and postmodern art more particularly, suggests that we only know reality and give meaning to it through signs and this is not a wholesale substitution. Hutcheon's argument that Derrida offers a possibility of having access to extratextual reality, and her agreement with historiographic metafiction concerning the assertion of reference, could be interpreted as an avoidance of the strong position of an absolute enclosure within the semiotic. But, as also in the case of the grand narratives, in reality she inclines to the strong position, something also demonstrated by her observation that "perhaps by definition, the referent is a discursive entity"; the same observation holds for the fragmented subject. In conclusion, Hutcheon defines the major issues defining the "poetics of postmodernism" as follows: "historical knowledge, subjectivity, narrativity, reference, textuality, discursive context" (Hutcheon 1988: for example, 24, 40–41, 43, 70, 75, 83–90, 100, 112, 119, 141–149, 213, 223–225, 229–231). We may easily detect, first, that the common axis uniting these issues is their enclosure within the semiotic, and second that this project is solidly anchored in neostructuralism.

The traits of neomodernism so far discussed give us, I believe, a fair idea of this cultural formation. We may round out this idea with the presentation of the views of Hassan (1987: 167–173), who identifies what he calls a tentative set of traits of postmodern culture, postmodern theorizing and art included. For Hassan, as for Jencks, the overarching trait is a "critical pluralism," which is expressed in the following:

a. Indeterminacy. Indeterminacy includes ambiguities, ruptures, and displacements, "constitute our world," and occur in science, literary theory, and art (in this context, Hassan refers to Bakhtin and Barthes's writerly text).
b. Fragmentation. It is one of the traits that lead to indeterminacy and is opposed to any kind of totalization or synthesis in respect to science, society, or the poetic domain. It is related to paradox and the operations of montage and collage (there is reference here to Lyotard).
c. Decanonization. This goes against all conventions of authority and languages of power, and decanonizes culture. Thus, it denies grand narratives, adopting instead small narratives, espouses the idea of a series of deaths (of God, the Father, the author), and supports subverting tendencies, such as minority movements and the feminization of culture (once more, reference to Lyotard).
d. Selflessness/depthlessness. This concerns the death of the subject, the latter being considered by poststructuralists, as Hassan reminds us, as a totalizing principle. The subject is lost in the differences that make up the play of language and this loss appears in depthless styles refusing interpretation (reference to Nietzsche).
e. The unpresentable/unrepresentable. This is the negation of representation. Postmodern art is non-realist and literature contests its own modes of representation (reference to Kristeva).

The above are, according to Hassan, the deconstructive traits of postmodernism, and he continues with the following traits, which he considers as reconstructive:

a. Irony. Due to the absence of a grand narrative, the search for truth is continually postponed, and the result is play and an ironic self-reflexivity, which assumes indeterminacy. This trait can be seen in literary criticism, philosophy, history (reference to Bakhtin and Derrida).
b. Hybridization. This is the adoption of genres and styles in a transformed manner, and their mixing, leading to new relations between historical elements, or the mixing of high and low culture. It is

accompanied by parody, pastiche, and kitsch, and it appears in litera-
ture, literary criticism, cinema, architecture (reference to Heidegger).

c. Carnivalization. According to Hassan, this concept, borrowed from
Bakhtin, addresses all the traits above (with the exception of the un-
presentable) and implies performance (see i), polyphony, absurdity
and the comic.

d. Performance/participation, which results from the indeterminacy of
the postmodern text, verbal or nonverbal, theoretical or artistic, and
is the active participation of the addressee.

e. Constructionism. Due to its non-realistic nature, postmodernism con-
structs reality in fictions, a phenomenon traversing social relations,
postmodern theory, science, high technologies, and art (reference to
poststructuralism).

f. Immanence. This refers to the projection of language and signs, more
specifically signifiers, into nature, "turning nature into culture, and
culture into an immanent semiotic system," and thus, for example,
the hard sciences depend on the latter. This movement of immanence
is the source of a reflexive irony, but in a consumer society it can lead
to emptiness (reference to Baudrillard).

It was to be expected that in the transition from neostructuralist to neo-
modernist theory a transformation would appear, given the radically in-
compatible cultures and frames of thought between France, on the one
hand, and the U.S. and generally the Anglo-Saxon world, on the other.
The Cartesian and deductive theoretical thinking of France has nothing
in common with the empiricist and inductive Anglo-Saxon tradition. The
issue of the difficulty of understanding French thought in the U.S. is
raised by Pamela Tytell when she observes with reference to Lacanian
psychoanalysis that, with few exceptions, it is "the dominant ideology
[in the U.S.] which blocks a real reading of Lacan"; she continues by con-
trasting the different scientific points of reference in the two countries:
Freud versus Skinner, Adler, Reich, and Fromm; Lévi-Strauss versus
Mead and Goudenough (Tytell 1974: 80–81).

An illuminating account of this transformation as it applies to Derri-
dean deconstruction is given by Norris. Norris detects two different ten-
dencies among American deconstructionists. The one is exemplified by
the literary critic Paul de Man, of European origin, who is meticulous in
the use of concepts and has recourse to systematic argumentation, not
wanting deconstruction to lose its quality of close reading. Indeed, for
Norris, de Man, while a consistent deconstructionist, invites us to go be-
yond the skepticism of deconstruction and states that the continuous re-
gress of further and further deconstructions must finally arrive at a stabi-

lizing point. This measured approach is far from being accepted on the part of the second tendency, deconstruction "on the wild side," represented by Geoffrey Hartman (of European origin) and J. Hillis Miller, also literary critics, who push deconstruction to the limit of interpretative freedom.

Still according to Norris, Hartman's project is a specifically American deconstruction, one that melds criticism with literature, which resulted in pushing the critic to the extremes of self-indulgence. Hartman does not follow the rigorous aspect of deconstruction and merges impressionistically and rhetorically different philosophical traditions. For Miller also, the rhetoric of textuality professed by deconstruction allows the overcoming of the discrimination between criticism and literature. For him, due to the unending proliferation of meaning, the critic has no responsibility to limit the freeplay of imagination and language — this is the "everything goes" variant of deconstruction. As Norris notes, this kind of American reception of deconstruction had a direct impact on Derrida himself. Contrary to his rigorous vein, the rhetoric he uses in his rejoinder to John R. Searle is far from reasoned. This aspect of deconstruction follows the "uncanny" or "vertiginous mode," which is not without continuity with its rigorous aspect, but is nevertheless more indirect and circumstantial. It is an aspect both provoked by the American deconstructionists and mainly addressed to them. Here, the freeplay of textual dissemination is the order of the day (Norris 1982: 15, 92–93, 97–99, 105–106, 113–115, 127 and 1990: 158, 159).

I hope that by now the genealogy promised in the title of this text, which I believe corresponds to the common feeling of semioticians, has been sufficiently documented. If so, then the strong position of Deely that it is the (discontinuous) tradition starting with Augustine and re-emerging with the "high semiotics" of the later "Latin" age that leads to "postmodernity," as well as his view that Peirce (to whom he adds secondarily Heidegger), who takes over from the "Latins," opens the fourth age of human understanding and is the last modern but also the first postmodern philosopher, certainly comes as a surprise. Deely's general argument supporting this conclusion is that Peirce formulated a general doctrine of signs and that the general notion of sign or *signum* is the central element of postmodern philosophy. This is not the place for an extended discussion of Deely's argument, but let me remind the reader that it revolves around the unification of the ancient Greek natural signs with formal signs, with the aim of unifying scientific knowledge and the experience of nature and culture, and the view that signification (signs as other-representative) cannot be reduced to representation (objects in experience inclusive of the physical environment as self-representative,

which are not signs) — Deely 2001: for example, xxx, xxxi, 61, 117, 155–157, 224, 443, 508, 585, 588, 667, 680–681, 695.

The divergence of Deely's genealogy of postmodernism from the actual historical continuities becomes even more striking if we take into account the almost total indifference of neomodernism to Peirce's ideas. Although Peirce has a certain presence among a few structuralists, notably Jakobson and Eco, he is practically invisible in neostructuralism. There are some extremely rare instances in which some reference to him appears; one such instance is Derrida's *De la grammatologie* (1967b: 70–73), in which he refers to logic as semiotics and infinite semiosis, and another is Lyotard's *La condition postmoderne* (1979: 21 note 28), where there is a reference to Charles Morris, who is related by Lyotard to the semiotics of "Ch. A. Peirce" [*sic*]. Peirce is also invisible in the vast domain of cultural studies, which attempts to bring together structuralism, neostructuralism, and neomodernism on the one hand, and the Anglo-American cultural approaches, Marxism, postcolonialism, etc. on the other. Taking two examples from this domain, in both John Storey's (1993) *An introductory guide to cultural theory and popular culture* and Chris Barker's (2000) voluminous textbook *Cultural studies: Theory and practice* there is not a single mention of Peirce.

Of course, Deely does not live in a vacuum and has a very good grasp of semiotics as a whole. Since, then, his account of neomodernism is not historical and descriptive, it must necessarily be subjective and normative. Deely is willing to impose Peirce as *the* postmodern philosopher, while at most he could historically and logically be the ancestor of postmodernism (which is still not the case). He makes certain concessions to French semiology and credits Saussure with the attempt at a general science of signs, but he does not tie it to neomodernism, but to modernism and idealism, to which he opposes Peircian semiotics. He believes that Saussure failed to formulate a general theory of signs, which is "a historical failure"; that "the Saussurean or, more generally, the semiological notion of sign . . . is hopelessly deficient"; for postmodern semiotics "Saussure's proved an abortive proposal"; in order to be integrated in the "postmodern development," semiologists "need only to jettison the pretension of their paradigm to a completeness and governing role from which it is excluded . . . by the doctrine of signs itself"; "Derrida seems to be saying something new and profound but in reality is crying out the inadequacy of the Saussurean notion of sign," his view of *différance* "comes crashing down" due to "the semiotic character of sensation," he has a "narcissistic purpose" or a "nihilistic purpose," and he is tied to "cancerous forms of semiosis"; and — in a final, if grudging, concession to history — "the first decades of postmodernity were filled with a kind of dust of semiological analysis,"

while today "the ultramodern protagonists [the neostructuralists] of the adequacy of the semiological sign thus found themselves gazing all the while, with often visible envy, at those already walking the way of signs" (Deely 2001: 679, 682–688).

Sometimes, then, Deely's style is that of a semiotic manifesto, aiming to downgrade the semiological tradition and impose Peirce at the expense of Saussure and semiology. Of course, apart from this occasional style, Deely's enterprise is quite legitimate, since he undoubtedly has the philosophical right to defend his own position, but a crucial problem is that he does so against the historical data. In fact, Deely follows the very dubious method of extracting contemporary neomodernism from its historical situation, in order to use this concept for the achievement of his normative purpose. This strategy is revealed in statements such as: "By postmodernism, . . . I do not mean that collection of quintessentially idealist writings which revel in deconstruction and Hermetic drift. I mean . . . ," statements which then lead directly to Peircian semiotics (Deely 2001: 691–692). Apart from the obvious collision of his philosophical views with *sémiologie* and neostructuralism, the rhetorical devices Deely uses to downgrade them function as an implicit encouragement to adopt the semiotic model proposed by him. The replacement of the historical with the normative leads to an historical anachronism, because Deely is obliged to recess postmodernism about a century back, with the result of creating a philosophical postmodernism that contradicts historical postmodernism.

However, putting aside this blurring of history, Deely points to an actual overlapping between Peircian semiotics and the French tradition, the quest for a general theory of signs, an overlapping that acts as the background for the operations of comparison and replacement he performs. From this common root or summit, the two paradigms split and follow two totally different directions. What should be emphatically stated is that neostructuralism / neomodernism is *not* a partial theory, as Deely believes, but a *global* one that, contrary to Deely's view, *subsumes* natural under cultural signs, thus proposing a *different* global theory of signs from the Peircian one; this different theory is the only theory inseparably linked to neomodernity as an *historical* condition — a fact that does not of course imply that we or I need endorse it. On the other hand, if we look for an alternative theory, as Bauman does (and as I myself do, though disagreeing with Baumann as to its form), it cannot but be a theory corresponding to the urgent contemporary issues posed by this *new* historical neomodernity we are living in, and not a theory proposed on the basis of an ahistorical normativity. A normativity underlined by the very frequent use in Deely's book of the expression "postmodern development" in conjunction with Peircian semiotics and the association of

the latter with the future and the twenty-first century (Deely 2001: for example, xxx, 10, 211, 668, 685, 687–689, 699–700, 738, 742). Normativity replaces historical neomodernism (which he labels "would-be postmodernism") by a fictive one and creates the movement, in Deely's text, from the anachronism of attributing postmodernism to Peircian semiotics to a vision of its future.

Let us now leave this abstract hypothesis concerning logical semiotics and turn to the concrete impact of the "linguistic turn" (see, for example, Barker 2000: ch. 4), which dominated the sphere of the social sciences, the humanities, and the arts in the second half of the twentieth century and beyond, by following more specifically the diffusion of actual, historical, theoretical neomodernism. In his book on postmodernism and the social sciences, Robert Hollinger considers the issues that postmodern theory raises as relevant to history, sociology, anthropology, psychology, political science, and economics. His main focus in this context is what he considers to be the relevance of poststructuralist thought for the current interests of the social sciences (Hollinger 1994: xi–xii). Below, I shall give some examples of the tremendous impact of neostructuralism / neomodernism on the social sciences with reference to three different social sciences, namely social anthropology, human geography, and archaeology.

In social anthropology, neomodernism gave to the field a new orientation, which, however, is akin to the older interpretative anthropology, a branch of anthropology that was shaped in the U.S. from the sixties. As is to be expected, the problematics of meaning, i.e., the semiotic, is at the core of this "new," "interpretative," "literary," "self-reflexive," "experimental" anthropology. Meaning is at its core in a triple sense. First, as the object of inquiry, since what is looked for is meaning as conceived by the "other," the native's point of view on his/her society and on him/herself. Second, as the communicational, dialogic context, within which the encounter between the anthropologist and the other takes place, aiming at achieving the object of inquiry. Third, as the product of the anthropological work, since the anthropological account itself following from this encounter is seen through a literary perspective as a text shaped by a literary genre (Marcus and Cushman 1982: 25–27, 29, 59, 61; Marcus and Fischer 1986: 16, 23, 43; Strathern 1987a: 288–289 and 1987b: 269; Mascia-Lees et al. 1989: 9, 30; Spencer 1989: 145, 158). This literary anthropology, fond of the freeplay of meaning, is hostile to the "grand narratives" and indeed to the scientific enterprise itself. It represents a strong trend in social anthropology today, though critical voices are not lacking.

Exactly the same neostructuralist principles are reflected in human geography. There is a precedent of neomodern geography in the Anglo-Saxon world, represented by the "humanistic" geography, of phenomenological inspiration, which emerged in the mid-1970s, and it is possible to recede much further in time with "geosophy," an approach advocated since 1925 by John K. Wright, the object of which is the study of all kinds of subjective views (including those of geographers) in respect to geographical space. In the context of neomodern geography, some of the main theses that Lester B. Rowntree formulates as guidelines for the new cultural geography, which is the dominant trend in human geography today, are the following: there is a relationship between, on the one hand, culture as a constructed system of communication, meaning, and symbols, and, on the other, landscape and place; the landscape is a constructed textual system; it is not a passive receptacle of culture, but it contributes to the reproduction of culture and the social structure; a primary role is played by ideology, which tends to naturalize landscape; the geographical knowledge of cultural geographers themselves is constructed (Rowntree 1988: 583). A dimension of the material aspect of society, namely social structure, is preserved in this proposal. This is comparable to the case of Denis Cosgrove, who attempts to preserve Marxist political economy in his interpretative approach while emphasizing the recent turn of human geography towards the symbolic qualities of the landscape, which is for him a text, a cultural formation of signs and symbols (Cosgrove 1987: 96).

Like Rowntree, James and Nancy Duncan advance a program for the new cultural geography, the main axes of which are the study of the manner of the construction of the landscape through oral or written texts; the manner of reading of the landscape; and the influence of the landscape on behavior. According to the Duncans, dominant ideologies take a concrete form in landscape, are reinforced by its readings, and contribute to its preservation (Duncan and Duncan 1988: 120–121, 124, 125). The neomodern rejection of the knowledge of reality was also diffused in human geography. For example, neomodernism is viewed as insisting on "a radical heterogeneity of incommensurable differences" and accepting the existence of many truths (Pile and Rose 1992: 133), or disrupting the modern and rejecting any kind of truth (Doel 1992: 171–172, 175).

A position similar to the latter, which is one of the most purist in neomodern geography, is taken by J. Brian Harley in his study of historical cartography. Harley believes that we must deconstruct the pretension of traditional historical cartography that there is an historical reality (i.e., historical referent) and that the map can represent it. The representations of historical cartography are imaginary and not objective, they

are just a text, a discourse, which tries to convince by using rhetoric. For Harley, this cartography does not relate to precision, but to semiotics, whence the need to approach it through the viewpoint of textuality, which also accounts for the issue of power. He concludes that historical cartography must find a new mode of representation that manifests, instead of hiding, its rhetorical nature. This can be accomplished, he suggests, by transmitting the feeling of a place, through the use of narrative form, new themes such as minorities and women, as well as iconography, including views of past cities, landscapes with people and artifacts, and architectural and archaeological drawings (Harley 1989). In this manner, the historical map becomes the product of a play of imagination, and its playfulness — which if we were Barthes we would consider as the source of *jouissance* — is directly comparable to that of neomodern architecture.

My last example is drawn from current developments in archaeology, and I shall present the views of two leading figures of neomodern or post-processual archaeology, Christopher Tilley (1993) and Ian Hodder (I am referring here to a text he coauthored with Michael Shanks in 1995). Both authors state that post-processual archaeology is grounded in poststructuralism and hermeneutics. The archaeological interpretation of material culture as a significant system or practice is a semiotics of material culture, an interpretive archaeology focused on meaning, an archaeological poetics. The linguistic turn marks post-processual archaeology. According to Hodder, this new approach in archaeology emerged toward the end of the 1970s as a reaction to processual archaeology, and moved from the relation between society and the environment to issues of symbolism and ritual. The act of archaeological interpretation consists in a dialogue between the interpreter and the interpreted material past, in which the archaeologist becomes a translator; this act demands self-reflexivity and aims at understanding, not causal explanation. Still according to Hodder, post-processual archaeology opposes the aspirations of earlier archaeology to a value-free positive explanation. The search for an objective scientific practice in archaeology led to an underestimation of the expressive, aesthetic, and emotive aspects of the archaeological project and practice, an affective dimension that is directly related to politics. Simultaneously, pleasure (or displeasure) is at stake, a pleasure following from the serious and imaginative involvement with the past and the archaeological activities.

The problematization of scientific objectivity inescapably poses the issue of accessibility to the archaeological referent. Hodder holds a mild position in respect to this point. Adopting "epistemic relativism," he does not want to dispense with reality, but only rejects the absolute objec-

tivity claimed by "totalizing" systems with the pretense of a final validity. He argues for the search for specific realities, identified through the resistance of the archaeological object to specific tests, and proposes the same procedure in the case of competing views, whence his position that not all forms of archaeological knowledge are equivalent. On the other hand, Tilley takes a strong position concerning the referent, that is, material culture. Archaeological reality is not a final referent, but is "written," just as the archaeological text, and is *only* "a link in a chain of semiosis involving signification through objects and words" (Tilley 1993: 12), "a differential network or fabric of traces referring endlessly to something other than itself, to the social world" (Tilley 1993: 7). The shift from validation to signification leads to a plurality of equally meaningful interpretations, thus casting into doubt any stable referent. Such an archaeology functions as a means of communication and dialogue. Tilley even considers as positive this proliferation of interpretations, believing that this field by itself constitutes an object of knowledge.

For both authors, objectivity and facts are constructed in discourse. The act of the interpretation of material culture, beyond the physical object, also mobilizes the archaeologist, implying the archaeological "intertext," i.e., the system presiding over archaeological works, related to the power networks in the field, and the archaeologist's own identity (gender, ethnicity, etc.), as well as more broadly culture as a whole: interpretation is a process of contextualization. Thus, the material culture of the past, the "other" for the archaeologist, acquires meaning only within a cultural context — whence the term "contextual archaeology" — and is constructed in discourse as text, as a cultural production.

The written archaeological text does not re-present the past, but has a metaphorical relation to it, and is a collage and montage of images of the past derived, on the one hand from the artifacts, and on the other from concepts and experiences produced in present times. It is a system of signification, a narrative structure, written by the narrator archaeologist and addressed to readers. It has a plot and characters, and uses rhetorical tropes. Thus, the archaeological text is a literary form and shares common conventions with literature. Earlier use of third-person discourse was an attempt to give the impression that events narrate themselves, but the consciousness of the discursive character of the text, the "other" of scientific archaeology, blurs, both in archaeology and history, the distinction between them and literature.

We already encountered the phenomenon of the aestheticization of everyday life in the neomodern period. The above current neomodern view concerning the identification of the social sciences with literature, as well as more generally the extremely close connection between

neomodern theorizing and neomodern culture, have resulted in a comparable aestheticization of the works produced in the social sciences and generally of neomodern theoretical works, as well as of the conception of the processes involved in them. Hence metaphors such as "excavation is invention / discovery or sculpture where archaeologists craft remains of the past into forms which are meaningful" (Shanks and Hodder 1995: 12). Neomodern theorizing amounts to an aesthetic philosophy, because it is inseparable from the logic of art and literature, and is enclosed in its peculiar manner within the sphere of imaginary representations (see also Norris 1990: 23–24). This character is exemplified by Lyotard, with his conjunction between the rejection of the referent, on the one hand, and the sublime on the other.

Tilley is extremely enthusiastic with the above neomodern perspective in archaeology. He believes that, by using past artifacts as a starting point, we acquire weapons for understanding our present situation, weapons that can be used "for socialism and emancipation from structures of exploitation and domination." Post-processual archaeology becomes a politics of the past. The study of the past is only the survey of today's conflicting networks of power and desire; it is an experimentation, and in performing it we should "in a self-reflexive moment, disown a will to power through knowledge" (Tilley 1993: 25). The problem with such a view, of course, is that politics *is* about power!

There may be a confusion between neomodern theories and theories that, although circulating in the neomodern period, are not neomodern. On this point, Hutcheon, for example, after observing that there is a close theoretical connection between postmodernism and poststructuralism — something which according to Barker (2000: 19) is not a "straight forward equation" — as well as an obligatory association between them, states that there is a need to surpass this association, and there are also close connections between postmodernism and other contemporary theories, such as "discourse analysis; feminist, black, ethnic, gay, post-colonial (the politics of difference, according to Barker 2000: 11), and other ex-centric theories; psychoanalysis; historiographic theory; and even analytic philosophy" (Hutcheon 1988: 226). The fact that Hutcheon considers all these theories (to which we can also add others, such as Marxism) as related to postmodernism reminds us, then, of the existence of theories other than the neomodern ones that are not identified with neomodernism, but nevertheless belong to neomodernity. The presence of these other theories could possibly put into question my position concerning the dominance of neomodern theorizing. I believe, however, that this dominance is the common experience of all those working in the social sciences, humanities, and the arts. Moreover, we should take notice

of the impact of neomodernism on these other theories, an issue I should like to address briefly, based on Barker.

In the vast and heterogeneous domain of cultural studies, which covers both neomodernism and most of the other theories referred to above, a dominant concept is that of "anti-essentialism." It results from the neo-structuralist view that words and ideas do not refer to any external referent, in which case they would indicate a certain essential quality of it, but that meaning is created by the relation between signs. As a consequence, any assumed category is only a semiotic construction culturally bounded. Major social or cultural entities and cultural traits are now defined on the basis of this anti-essentialist position. Thus, race is replaced by "racialization," a term indicating that race does not exist outside of representation; youth subcultures are considered not to exist as external realities, but as the creation of subculture theorists and the media; in spite of the existence of a different view, a widely diffused idea is that femininity and masculinity are simply cultural constructs (and this with reference not only to gender, but also sex), on the grounds that there can be no access to any biological referent; cultural identity is not attached to some external social situation, but is considered as a fragmentary and incessantly changing discursive position (Barker 2000: 19, 221, 228, 230–233, 243, 248, 288–289, 378, 391, 409, 435).

Postcolonial theory moves within the above context. It emphasizes the hybridization of language, literature, and cultural identities; it considers national or ethnic concepts (like "American" or "American Indian") as having an unclear and unstable meaning. Unambiguously, postcolonial theory, one of today's theories that is not identified with neomodern theorizing, is imbued with the latter. The same is the case with feminism. There are different varieties of feminism: poststructuralist / postmodern feminism, difference feminism, postcolonial feminism, socialist feminism, liberal feminism, black feminism, postfeminism. The first of them, as we can see, is part of neomodernism, while others are influenced by it. Needless to recall that for neostructuralist / neomodern feminism gender and sex cannot be explained in terms of capitalist social relations or biology respectively. Not only are femininity and masculinity discursive positions, but there is also a field of possible femininities and masculinities. There is a constant political struggle in respect to these identities, which is a struggle over meaning. Due to its concern with language and power, this variety of feminism holds a dominant position, both within feminism and generally in cultural studies (Barker 2000: 276–277, 280–283).

The strongest (though unfortunately not strong enough, due to the cultural and scientific hegemony of neomodernism) voice against neostructuralism / neomodernism comes from the Marxist camp, arguing

for a political economy of culture. But even this perspective is frequently transformed by neomodern ideas (see also Barker 2000: 244, 417–424). The fact is that there are undoubtedly valuable comprehensive theories articulating culture and the semiotic with political economy, all of them founded on Marxism, and I would like to recall in this context Pavel Nikolaevich Medvedev and Mikhail Bakhtin's (1978 [1928]) Marxist sociological poetics, Althusser and Balibar's (1968) structural causality, Pierre Bourdieu's (1980) *habitus*, Raymond Williams's cultural materialism (1977), and Anthony Gidden's theory of structuration (1981).

These theories, which offer a way out from the idealist dead-ends of neomodern theorizing, are unfortunately beyond the scope of the present paper. I would only like to point out here that it is to be regretted that the interchange between Marxism and French structuralism / semiotics has not been given the place it deserves in the histories of semiotics, as we may observe from major reference works in the field. Thus, in Thomas A. Sebeok *Encyclopedic dictionary* (1994) this subject is censured (and French semiotics very weakly represented), with as main exception one entry on Marx, presented in isolation from his profound influence on French semiotics. Comparable is the situation with Roland Posner's *Handbook* on semiotics (Posner et al. 1997–2004), strongly oriented outside cultural semiotics, though the chapter on sociosemiotics by Thomas Alkemeyer (2003) is one of the few exceptions presenting fairly the Marxist trend (as part of a much wider context). Several entries on the Marxist trend (and French semioticians) are also to be found in Paul Bouissac's *Encyclopedia* (1998), but the issue is given its full dimension only in the anthology *Semiotics* (Gottdiener et al. 2003), where one of the nine sections of this four-volume work is dedicated to the subject of semiotics and Marxism.

The purpose of this paper, however, was the genealogy of neomodernism. As we saw, this genealogy starts with the Saussurean linguistic turn. Saussurean theory was further elaborated by the Russian Formalism, ancestor of the Moscow-Tartu School, and the Prague Circle, with Jakobson in both cases as the preeminent figure, as well as by the Linguistic Circle of Copenhagen with its leading figure Hjelmslev. Already from the period of Formalism, Marxism came into contact with Saussurean theory, both as a strong critical stance towards it and as a unified sociocultural approach assimilating this theory. After his encounter with Jakobson, Lévi-Strauss laid the foundation for contemporary French *sémiologie* with his anthropological structuralism, which was colored with Lévi-Strauss's Marxism (on the above, see also Lagopoulos 2004a).

The transformation of structuralism into neostructuralism, decisively influenced by the ambience of May 1968, was due to the combination, as

Frank rightly points out, of a continuity, structuralism / semiotics, with a discontinuity, the German critique of metaphysics from the old German Romanticism to Heidegger. But what escapes Frank is that it was also due, and very importantly, to French surrealism, a Marxist-Freudian amalgam; to the existentialist Marxism of Sartre, and to the French version of psychoanalysis, Lacanism: together, these add up to a strong "Gallic" line. Finally, neostructuralism passed the Atlantic, as a response to local cultural phenomena in the U.S. A new transformation took place, from neostructuralism to neomodernism, which dominates today's theoretical discussions in the social sciences, the humanities, and the arts. And the future will be "written" (my gallant concession to neomodernism) by history.

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The inferential and equational models from ancient times to the postmodern

GIOVANNI MANETTI

Abstract

The basic idea that makes John Deely's Four ages of understanding *an innovative one is that the notion of the sign is at the center of philosophical development from the start, and proves basic to a postmodern development of thought as well. A full awareness of this notion of sign can be traced way back to the beginning of the fifth century AD, in the works of Augustine, where the two different theories of signs present in the Greek period — the semantic theory of the linguistic sign (following an "equational" model) and the logical-epistemological theory of non-linguistic signs (following an "inferential" model) — are amalgamated. The aim of this paper is to show that Augustine makes a move that is both symmetrical with and a mirror image of what Saussure does: the latter unites the two theories and two classes of sign, setting up the linguistic sign as the guiding principle, while Augustine subsumes all types of sign within the class of non-linguistic signs. But it is the Augustine's move that opens, as Deely also says, a link with the postmodern era, proposing a semiotic model that is homogenous with that of Peirce.*

Keywords: sign; inference; Aristotle; Stoics; Philodemus; Augustine.

1.   Introduction

The basic idea that makes John Deely's new book an innovative one is that it puts the notion of the sign at the center of philosophical development providing an "alternative" history of philosophy. Every history is a history of the present and is written for the present time. The notion of the sign becoming central to the philosophy of the current era provides a red thread that runs through the whole of the history of philosophy and

allows us to find more than one trace of the present in each of the preceding eras. Deely states: "If there is one notion that is central to the emerging postmodern consciousness, that notion is the notion of sign. And for understanding this notion, nothing is more essential than a new history of philosophy" (Deely 2001: xxx).

This notion of the sign is basic to a postmodern development of thought but it has certainly not been sufficiently valued in the era preceding ours, the modern age, and it seemed to matter little that a full awareness of the notion of the sign can be traced way back to the beginnings of the fifth century AD, elaborating on ideas developed in Greek culture from its origins. And it is that particular relationship with the notion of the sign that provides a key to the four phases in philosophical thought to which the title of Deely's work refers: "Preliminaries to the notion of sign; the development of the notion itself; forgetfulness of the notion; recovery and advance of the notion" (Deely 2001: xxx).

The first phase coincides mainly with the ancient era, from the pre-Socratic to the neo-Platonists. The second phase, the Latin age, goes from Augustine (354–430 AD) to John Poinsot (1589–1644). The third phase, the modern age, from Descartes (1596–1650) to Saussure (1857–1913) and to Wittgenstein (1889–1950). The fourth phase, the postmodern age, begins with C. S. Peirce (1838–1914; cf. Deely 2001: 738).

The main defect that Deely attributes to traditional histories of philosophy can be outlined, which will allow us also to capture the advantage of this new arrangement. For Deely:

Every modern history of philosophy has been essentially preoccupied with the separating off from philosophy of science in the modern sense, especially in and after the seventeenth century. From this point of view, many of the continuing philosophical developments of the later Latin centuries tend to drop out of the sight. It has become the custom to present modern philosophy, conventionally beginning with Descartes (seventeenth century), simply as part and parcel of the scientific break with the authors of Latin tradition, and to treat the bringing of nominalism into the foreground of Latin thought by William of Ockam (fourteenth century) as if that were the *finale* of Latin development. (Deely 2001: xxxi)

The consequence of such a custom, according to Deely, was that inevitably a two and a half century hiatus was thus created in the continuity of philosophical development. Instead, if the notion of the sign is taken as a guide, this hiatus disappears because we can see that from the height of the medieval era to Descartes, there has been a continuous and lively discussion on this topic, considered central to a number of aspects of philosophical debate, from the more properly gnoseological to the ontological. What is more, the notion of the sign, in the thirteenth century in particu-

lar, was at the center of a great controversy, that between nominalism and realism. For the nominalists, signs, and with them the whole of language, are a kind of *flatus vocis* with respect to the objects they refer to, a relationship of reason purely, an *ens rationis*, with no basis to be found (or looked for) in reality. For the realists, on the other hand, the notion of the sign is based on a super-subjective mode of being that modulates its ontology from case to case and according to circumstances, sometimes an *ens rationis*, at others an *ens realis*.

For Deely, the modern age, (the third in his classification, which starts with Descartes) is essentially an exploration of the nominalist alternative, which leads to what the author defines as a bankruptcy. So, it is the fourth phase, towered over by the figure of the pioneering C. S. Peirce, in which the alternative is explored. Peirce's research into the premodern era, as well as into the ancient and, above all, the medieval era, for Deely, managed to produce "a number of immediately dramatic and surprising results (beginning with the cure for the pathology dividing our intellectual culture between the *personae* of Dr. Jekyll and Mr. Hyde)" (Deely 2001: xxxi).

2.   The sign as "equivalence" and as "inference"

The term used in the contemporary era to refer to the study of signs, is labeled in the English-speaking philosophical world as *semiotics* and in the French-speaking linguistic world as *semiologie*, before the first conference of the International Association of Semiotic Studies defined the two terms to be equivalent. Deely sees this as not a mere terminological problem but an essential question. Indeed for Deely, Saussure who had proposed the name *semiologie* for the doctrine of signs in his *Cours de Linguistique générale*, is the most extreme representative of the third age, the modern age, which to some extent ends with him:

In the matter of signs, by the time Saussure developed his *Cours*, thinking had come full-circle not from Augustine, but from ancient Greece. Remember that in the Hellenic world, there were only natural signs. Augustine proposed that the sign is higher than that, superior to the divide between nature and culture, and Latinity exhausted itself by the time it was able to establish the ground for such a notion. Modernity began by trying to forget Latinity, and in the matter of the sign, it succeeded almost completely. Even the ancient thesis that signs are natural phenomena was retained only as an antithesis. For by the time of the maturation of Saussure's influence, the most credible thesis was rather that there are only conventional signs — signs wholly of the mind's own making. And this was the thesis that Saussure took upon himself to propound under the banner of "semiology." (Deely 2001: 669–670)

Saussure's proposal was for a new discipline, one which, like that conceived of by Locke in 1690, would take its name from the word *semeion*, which means natural sign in Greek, but that would be used to refer to linguistic signs. As we know, Saussure sets out his project for a new discipline in a few paragraphs in two different parts of the *Cours*: the first and longest description can be found in paragraph three of the third chapter of the "Introduction" in which he says that language is a system of signs that "express ideas." It is such a well-known passage that I will not go into detail regarding its interpretation. I only wish to highlight the problematic nature of the first part, in which Saussure identifies the sign in such a generic fashion that the distinctions between the examples are left undefined; distinctions that emerge on more careful analysis. Saussure describes the linguistic sign as an entity with the property of expressing ideas, adding that, thanks to this characteristic, it is comparable (in the sense that it is subject to the same mechanisms) to signs that we encounter in other areas of human experience. The fact that Saussure uses the expression "idea" in this extract rather than the more usual "concept," "meaning" or "mental image" is a linguistic indicator which reminds us of the famous extract in Locke's *Essay concerning human understanding*:

Thus we may conceive how *words*, which were by nature so well adapted to that purpose, came to be made use of by men as the signs of their ideas; not by any natural connexion that there is between particular articulate sounds and certain ideas, for then there would be but one language amongst all men; but by a voluntary imposition, whereby such a word is made arbitrarily the mark of such an idea. The use, then, of words, is to be sensible marks of ideas; and the ideas they stand for are their proper and immediate signification. (Locke 1690: III, II, 1)

As we can see Locke clearly expresses the notion of the sign as a sign of an idea. It is also clear that the whole of Locke's treatise deals exclusively with linguistic signs. Similarly, the definition of sign that Saussure proposes, as part of that same tradition, according to which the most well-developed and thoroughly studied signs are words, ends up by being essentially a definition of the linguistic sign.[1]

Saussure's second description of semiology is found in paragraph two of the first chapter of the "General principles" and I will quote it here in full:

One remark in passing: when semiology becomes organized as a science, the question will arise whether or not it properly includes a mode of expression based on completely natural signs, such as pantomime. Supposing that the new science welcomes them, its main concern will still be the whole group of systems grounded on the arbitrariness of the sign. In fact, every means of expression used in society is based, in principle, on collective behavior or — what amounts to the same thing

— on convention. Polite formulas, for instance (as the case of a Chinese who greets his emperor by bowing down to the ground nine times), are nonetheless fixed by rule; it is this rule and not the intrinsic value of the gestures that obliges one to use them. Signs that are wholly arbitrary realize better than the others the ideal of the semiological process; that is why language, the most complex and universal of all systems of expression, is also the most characteristic; in this sense linguistics can become the master-pattern [*le patron général*] for all branches of semiology although language is only one particular semiological system. (Saussure 1959: 68)[2]

The fact is that Saussure, thinking essentially of linguistic signs, presents all signs in general as two-sided entities, each side connected by a relationship of equivalence: a = b,[3] a signifier that equals a signified, a certain "acoustic image" to use Saussure's expression, with a two-way correspondence with a "mental image," like for example the sequence *arbor* in Latin and the concept "tree," or like the sequence *man* and the corresponding meaning as a synonym "rational animal," in which the same logical extension is found on both sides of the equation. From this we get the later structuralist and computational interpretations of language as a code which pairs units from two different systems.

   This does not work, though, when we take into consideration nonlinguistic signs. Saussure gives two examples, that of the natural signs in pantomime and that of signs of politeness. The former seem to be more rooted in their meanings (or referents) by a non-conventional or nonarbitrary relationship: the smile, a facial expression, does not stand for "joy" in any conventional way,[4] but in a natural way. An arbitrary component is involved as Saussure himself observes in the case of politeness indicators: for example, bowing down nine times in front of the emperor is, for the Chinese, in Saussure's example, a natural sign of respect but "nonetheless fixed by rule." It is possible to provide more radically natural examples alongside those chosen by Saussure, for example, smoke as a sign of fire, or a scar as the sign of a wound. For these cases the more appropriate model would be that of *inference*, in particular, the implication that holds between the two propositions that translate in linguistic terms both the sign and what it is a sign of, which can be expressed as follows: "If p, then q." Thus we do not say that smoke equals fire or that the scar equals the wound but we make inferences of the type: "If there is smoke then there is fire" and "If there is a scar then there has been a wound." It is clear that there is a difficulty in treating this kind of sign in a unified model of equivalence, required by Saussure's paradigm.

   The radical epistemological difference between the model to be applied to linguistic signs and that to be applied to non-linguistic signs was very clear in antiquity in which the two models were the result of two different

theories: a semantic theory of the linguistic sign and the logical epistemological theory of non-linguistic signs. The two theories, which proceeded in parallel, without being connected, and used two different sets of terminology (cf. Manetti 1993: 71): in Aristotle, for example, the expression *symbolon* (*De int*. 16a, 3–8) indicated linguistic signs that were linked in non-inferential fashion to their meanings, which are, in Aristotelic terms, the mental states), while the expressions *semeion* and *tekmerion* (*An. Pr*. II, 70a; *Rhet*. 1357a) indicated two types of non-linguistic sign (linked to their meanings in inferential fashion). The same distinction can be found in Stoic semiotics for the pairs *semainon/semainomenon* (Sext. Emp., *Adv. Math.*, VIII, 11–12), which apply to linguistic signs, and *semeion/semeioton* (Sext. Emp. *Pyrrh. Hyp.*, II, 104–106; *Adv. Math.*, VIII, 245–257), for the non-linguistic.

I would like to illustrate this double aspect taking each of the theories, the Aristotelic and the Stoic one, separately.

3.   Aristotle: A theory of language and a theory of non-linguistic signs

As is well-known, Aristotle set out his theory of language in his *De Interpretatione* (16a, 3–8) claiming that vocal expressions (*ta en tei phonei*) are *symbola* of mental states (*ton en tei psychei pathematon*), with which they have a conventional relation, while the latter have a non-conventional, natural, relationship in their turn with the objects to be found in the world (*ta pragmata*), of which they are a copy (*homoiomata*).[5] The same word chosen to indicate the relation between vocal expression and mental states, *symbolon*, sends us back to a fully equational model. Indeed the term *symbolon* in Greek culture indicates the two halves into which an object can be divided, each of which is interchangeable with the other. We might even say that it is in this extract from Aristotle that we can trace the roots of an equational model within which linguistic signs can be thought of and dealt with theoretically.

Without further discussion we can now look at how Aristotle dealt with non-linguistic signs (see Burnyeat 1982; also Weidemann 1989; Manetti 1993). When he considers non-linguistic signs (*semeion*), Aristotle is faced with the fact that in everyday parlance this word covers a whole series of concepts, from empirical phenomena that signal the existence of something else, to abstract reasoning which lead to a conclusion. The theoretical move he makes in *Prior analytics* (II, 70a) is that of assigning to the notion of the sign an inferential scheme, as in the following examples: "if a woman has milk, then she is pregnant," "If Pittacus is good, then wise men are good," "If a woman is pale, then she is pregnant." Each of

these examples is connected to an element of truth but Aristotle's attention is caught by two questions: (1) What is the logical form that a semiotic inference must take in order to lead invariably to a true fact? (2) What strength of proof or supporting evidence can be assigned to the various logical forms which can be reconstructed in relation to the various kinds of semiotic inference?

As far as the first question is concerned, for Aristotle "logical form" always means "syllogistic form," and his analysis goes on to reconstruct an underlying syllogistic form for all types of semiotic inference. Thus, he divides his examples into two categories: those that allow for formally valid syllogistic reconstruction and those that do not. In the first example, the reconstruction goes as follows: "All women who have milk are pregnant, this woman has milk and so she is pregnant." We get a valid first figure syllogism and Aristotle calls this kind of sign *tekmerion*. Proceeding in the same way the Pittacus example can be reconstructed as: "Pittacus is good; Pittacus is wise; so all wise men are good." For Aristotle this is an invalid third figure syllollogism. The third example is reconstructed as "All women who are pregnant are pale; this woman is pale and thus this woman is pregnant" and has the form of an invalid second figure.

The last two are examples of what are called *semeia*: though they have a syllogistic reconstruction that is not formally valid they can still be true even if this truth does not follow from the premises established in the reconstruction.

This last observation leads us to the second question relative to the different degrees of epistemic strength. It must be said that for Aristotle formal validity is not the only criterion for the evaluation of a semiotic inference and he does not reject entirely all those arguments that do not permit a valid syllogistic reconstruction. He reserves for them a place in a less elevated dimension of knowledge such as that of rhetoric or of everyday reasoning.

We thus get a theory that involves various degrees of supporting evidence:

1. The *tekmerion*, which is the most respected (*endoxotaton*) sign and produces the highest degree of proof (*malista alethes*);
2. The *semeion*, which has the characteristics of the former in terms of respectability and conclusivity, but to a lesser extent. Furthermore, it cannot be considered a proof.

The certain knowledge provided by the *tekmerion* comes from the fact that one can make true universal statements in correspondence with this kind of sign (Burnyeat 1982: 199).

In the *Rhetoric* (1357b: 5–6), a necessary sign is defined as one on which one can construct a syllogism whose conclusion will necessarily follow from the proposition that expresses the sign with the true generalization provided by the reconstruction. If, on the other hand, as for *semeia*, it is not possible to provide a premise that is a true generalization in the reconstruction, then the conclusion will merely be something that it is respectable to believe, an *endoxon*.

As Burnyeat (1982: 201–202) points out, if, on the one hand, Aristotle thinks that syllogistics is a universal test for verifying deductive validity, on the other, he does not believe that this is the only way of verifying that an argument is intellectually valid, or that it might take hold of a rational mind. There are, in fact, a large number of forms of inference that can be classified, reconstructed in syllogistic form, and checked from the point of view of formal validity. We can then see how much their strength depends on strictly formal factors and how much depends on likelihood or probability, as we find in political and legal debates. We then do find arguments that are not valid from a formal point of view but that are all the same good arguments.

So this fact of being able to separate formal validity from respectability of inference opens up a more specific area for a cognitive semiotic theory as such. Peirce's abduction theory finds a logical space in a form of reasoning that corresponds to that underlying Aristotle's *semeia* (*CP* 2.626, 7.249; Proni 1988).

4.   Theory of language and semiotic inference in the Stoic school

Let us now see how the Stoics, one of the most important of the ancient post-Aristotelian schools of thought, deal with the dual aspect of signs (cf. Melazzo 1975; Verbeke 1974, 1978, 1996; Ebert 1987; Manetti 1993: 93; Long 1996).

Stoic theory of language can also be illustrated by a triadic pattern though a very different one from the Aristotelian one. We will summarize it here briefly. The signifying expression is called a *semainon* or signifier; what corresponds to it semantically is defined as a *semainomenon* or signified, or a *lekton*, that which is said or what is said through words, which are signifiers; the external reality outside language to which words refer is called *tynchanon*, that which exists. In this case as well, as with Aristotle and as we saw above, there is an equational model that links signifier to signified. It should be noted though that there is a radical difference between the Aristotelian model and the Stoic model as far as the position of the signified is concerned: for Aristotle that position is taken up by psy-

chic content or a *pathema*, which has the characteristic of being the same for all, for Greeks and for barbarians, an entity that is a kind of psychological universal. In the Stoic model, this position is held by a non-corporeal entity, which is not in the mind of the users of the language, but in the language itself, and for this reason barbarians can hear the sound sequence while they can not understand the meaning.

I do not want to go into this in detail but we will go on to examine how the theory of the non-linguistic sign is set out in the Stoic school of thought. We get an outline in Sextus Empiricus (*Adv. Math.*, VIII 245–253; *Pirrh. Hyp.*, II 104–106), who maintains that for the Stoics the sign or *semeion* can be defined as a proposition that constitutes a true antecedent in a valid or sound conditional and that has the characteristic of being revelatory of the consequent: the relationship between sign and what it means is expressed by a conditional sentence "If p, then q." The proposition expressing the sign is "p":

The Stoics, in attempting to establish the conception of the sign, state that a sign is a proposition (*axioma*) that is the antecedent (*prokathegoumenon*) in a sound conditional (*en hygiei synemmenoi*), which serves to reveal the consequent (*ekkalyptikon tou legontos*). And they define the proposition as a complete *lekton* that is *assertoric* (i.e., true or false) in itself; a sound conditional is one which does not begin with truth and end with a false consequent [. . .] The antecedent, they say, is the precedent clause in a conditional which begins in truth and ends in truth. And it serves to reveal the consequent, since in the conditional "If this woman has milk in her breasts, she has conceived," the clause "If this woman has milk in her breasts" seems to be evidential (*delotikon*) of the clause "she has conceived." (*Pirrh. Hyp.*, II, 104–106)

This is not the only way of presenting the logical relationship between sign and meaning. There was another slightly different elaboration in the ancient world that was attributed to the Stoics. This is the paraconditional form of the proposition "Since p, then q," which can be found in Philodemus's *De signis* and which represents an improvement on the earlier formulation, in that it has a double order of truth conditions: (1) that p is true and (2) that it is true that "If p, then q" thus guaranteeing that the proposition that expresses the sign in a conditional is true, as it indeed should be (Burnyeat 1982: 218–224).

In *De signis* we can find another discrepancy with respect to the Stoic semiotic view as handed down from Diogenes and Sextus: in this text the sign and that which it expresses are not always represented as propositions but sometimes presented directly as things, one which is manifest, the other not manifest; for example, "smoke" and "fire," and not the proposition "there is smoke" as a sign of the proposition "there is fire."

The thing in question is such that its existence is asserted by the corresponding proposition; the inference from *x* to *y* and that from "there is x" to "there is y" are treated as interchangeable (Sedley 1982: 243; Burnyeat 1982: 211–214).

The Stoics devoted a great deal of discussion to the form that the conditional from which one could derive the sign inference needed to have, and in Sextus a number of alternative types of conditional were proposed. (Sext. Emp., *Pyrrh. Hyp.*, II, 110–112): (1) the conditional attributed to Philon (which corresponds to the modern material implication); (2) the conditional attributed to Diodorus Chronus; (3) the conditional attributed to Crysippus, or *synartesis* ("cohesion," which has been related to the modern strict implication); in ancient terms it was defined as the conditional in which the contradictory proposition (*antikeimenon*) of the consequent is incompatible with the antecedent (*machetai*) as for example in "if it is daytime there is light" (Diog. Laërt., *Vitae*, VII, 73). In Diogenes' example, the contradictory proposition of that which functions as the consequent in the conditional, that is to say "there is not light," is incompatible with the proposition that forms the antecedent in the conditional itself, i.e. "it is day." This restriction on the form of the conditional is not present in the other two types under discussion and it could be that the Stoics came to accept only this latter form as valid.

5.   Indicative signs and commemorative signs

In the post-Aristotelian schools, a distinction began to be made between two kinds of sign: the commemorative and the indicative. Sextus describes them as follows

Of the signs ... according to (the dogmatists), some are commemorative (*hypomnestika*), some are indicative (*endeiktika*). They term a sign "commemorative" when, being mentally associated with the thing signified, it by its clearness at the time of its perception, though the thing signified remains non-evident, suggests to us the thing associated with it, which is not clearly perceived at the moment — as for instance in the case of smoke and fire. An "indicative" sign, they say, is that which is not clearly associated with the thing signified, but signifies that whereof it is a sign by its own particular nature and constitution, just as, for instance, the bodily motions are signs of the soul. (*Adv. Math.*, VIII, 151–155)

The fundamental character of the sign comes from the fact that it is presented as the fruit of an association, constantly observed in an empirical link or conjunction. Sextus Empiricus gives us examples with a tripartite temporal form. "If there is smoke, there is fire" is a contemporaneous re-

lationship whereas "If there is a scar, there has been a wound" is an example of a relationship where the sign comes after the fact it signifies. "If there is a wound to the heart, then death will follow" is an example in which the sign comes before the fact signified.

The indicative sign on the other hand is where the sign and that which is signified have never been observed in an empirical relationship but their relationship is a purely rational one. The relationship is in nature itself and in the constitution of things. Sextus gives another example "If sweat passes through the skin then there are pores." From the last two examples, we can see that the indicative sign allows us to understand a reality that we do not have access to via the senses.

6. Fusion of the theory of language with the theory of the sign

It was the commemorative signs that joined the theory of language with the theory of the non-linguistic sign and opened up the path that led from the first to the second phase of Deely's classification with the semiological reflections of St. Augustine. They became amalgamated when he proposed a category "signum," which could cover both non-linguistic and linguistic signs, as two types belonging to the same species, but we need to examine how this became possible. There are two conditions that concern the format of the sign unit and the kind of logical relation set up by the sign.

6.1. *The format of the sign unit*

The first condition is derived from a return to the Stoic problematic in which the *semeion* sends one back to the *semeioton*, that is, to something that is indicated by it, thus establishing a relationship of conjunction between something that signifies and that which is signified. We have seen that the notion of the *semeion* in Stoic philosophy corresponds to the format of an entire proposition: a sign was — or was translatable as — a linguistic unit that had a propositional shape. It was only on the level of the proposition that the signifier and signified were joined. The single word had no semantic space: the signifying unit was the proposition, while the single word, for example a verb, was considered to be a deficient *lekton* that needed to be completed to have any meaning.

In order to be able to understand why Augustine can define a single word as a *signum*, it is necessary to highlight out the influence that Alexandrian grammatical theories had had on what we call philosophy of

language, as practiced by the Stoics (Baratin 1981: 263). The Alexandrian grammars had made great use of Stoic classification systems, often without paying much attention to the context of use in which the systems had been set up, and often bending them to suit their own perspectives. For the Alexandrians, the word rather than the proposition played a central part. It took on a function that had first, with the Stoics, been assigned to the proposition: that of being a carrier of meaning. So there was a clear shift of focus of analysis once linguistic theory had gone through the filter of Alexandrian grammar, and the center of analysis passed from the proposition to the word. In this way, the word itself could become a complete and not a deficient sign. For Augustine, it is in the word that signifier and signified are joined together,

Thus Augustine, in *De dialectica* (386–387), decided first of all to study individual words. He started by distinguishing the *vox* or *sonum* of the word from the notion of the *dicibile*. The *vox* is that which is perceived by the ear, or the material features of a word, that which we would call the signifier. The sayable is that which is perceived not by the ear but by the soul, and to some extent the terminology resembles that of the Stoics' *lekton*, which indicated the sayable, or what is said, which makes up the semantic component of an utterance. There is a third element, the *res*, or the referent, which Augustine defines as an object of any sort which is perceived by the senses, or by the soul or that escapes perception.

Augustine then goes on to make a distinction between two notions that today would be called *mention* and *use*. He states that when a word, in terms of the union between signifier and signified, has itself as referent, as happens, for example, in a grammar context when there is a case of mention, then it takes the name of *verbum* (an expression that means both a word in general and a word in this particular technical sense). When a word as the union between signifier and signified is used to refer to something else, it is called *dictio*.

The Latin expression *dictio* is a kind of borrowing of the Greek expression *lexis*, which, in the Stoic classification set out by Diogenes (*Vitae*, VII, 55–57), indicated a sound sequence that had the properties of being articulated and transposable into letters, but without having any meaning in itself, so that the sound sequence *blityri*, which does not exist as a word in Greek, but sounds Greek, could be considered a *lexis*. It was only the *logos*, which corresponds to the utterance, which would be considered a *lexis*; Alexandrian grammar took up the notion of *lexis* but reinterpreted it in a radically different way. In the *Techne grammatiké*, which has come down to us under the name of Dionysius the Thrax, the *lexis* is defined as the smallest part of an utterance and is situated between letters and syllables on the one hand, and the utterance on the other. In

comparison with letters and syllables it is seen as carrying meaning, which they do not, and with respect to the utterance a *lexis* was considered to be carrying an incomplete meaning, though still a place where signifier joined signified (cf. *Grammatici Graeci*, I, 1, 22, 4).

At this point, Augustine takes up the problematic in *De dialectica*, substituting for the Stoic pair *logos/lekton*, that is, utterance/meaning of the utterance, the pair *dictio-dicibile* or word and meaning of the word (cf. Baratin 1981: 264). So, it is in the word as *dictio* that the joining of signifier and signified takes place. The implications are fundamental. The word can thus be defined *signum* as it is at the beginning of Augustine's *De dialectica*: "*Verbum est uniuscuiusque rei signum, quod ab audiente possit intelligi, a loquente prolatum*" (V, 29–30).

This definition sets out and illustrates the extent of the revolution in the philosophy of language, inherited in part by Augustine and in part created. His specific contribution consists in this definition of the word as a *signum*, which is a totally new departure from that of the ancient world. As we have seen in Aristotle and for the Stoics the expression *semeion* referred to non-linguistic signs exclusively.

6.2.   *The logical relation set up by the sign*

In the linguistic philosophy of the Stoics, the sign was involved in a process whereby the knowledge of the sign as an antecedent allowed for knowledge of the consequent by implication, Augustine's *signum*, though reduced from proposition to single word, inherited this implicational character. The word, as a union of signifier and signified, became the sign of some thing. This state of affairs has been well defined by Marc Baratin (1981: 266), who assigns to this conception of the word as sign considerable and hitherto unknown perspectives. Previously, in linguistic analyses in which the problem of the relationship between word and its meaning was considered, the relationship was treated according to a model of substitution, what we have called an equational model, following Eco, in which the word was a substitute for the meaning and justified in its existence by this characteristic of substitutability. Once the word was conceived of as a sign, on the other hand, the relationship with its meaning became to be seen no longer as a substitution but rather as a relationship of implication. In the same way as smoke was seen to be a sign of fire and in as much as knowledge of smoke implied knowledge of the fire, thus the word as a sign of a thing implies that knowing the word one becomes familiar with the thing of which it is a sign. In the *De doctrina christiana*, linguistic and non-linguistic signs are put on the same level,

one described as natural, *signa naturalia*, as, for example, smoke which indicates fire, and the other as dependent on an intention and on a convention, the *signa data* (cf. *De doctrina christiana*, I, 2–II, 3), as, for example, in the case of words.

At this point, however, we are confronted with a problem: once it has been decided that a word is a sign of something and therefore the knowledge of that word is supposed to allow by implication the knowledge of the thing of which it is a sign, given that language is made up of signs, we then have to ask, as Augustine does in *De Magistro* (written in 389), how that system of implication gives access to what is implied (cf. Baratin 1981: 267). The text, in the form of a dialogue, investigates the problem of determining what signs are signs of, since we speak through signs and when we speak our aim is that of communication,[6] or rather, to use the terms used on the dialogue, to give information. The argument is developed in two distinct steps. First, Augustine proposes a view of language as the only means of transmitting knowledge, in that language is made up of signs and signs can provide knowledge of things. Then the argument is turned upside down and the characteristic argumentation of the skeptics is used (cf. Sextus Empiricus, *Adv. Math.*, VIII, 145–171). When we pronounce a word, there are two possibilities; either the thing the word is a sign of is known or it is not known. In the former case, the word gives no information because it adds nothing to what the person already knows, but even in the latter case no information is given, in that if the person does not know the thing then they will not learn it from linguistic signs (*De Magistro*, X, 33).

So, for Augustine we have to overturn the relationship between sign and things: it is not the knowledge of the sign that informs us about things but our knowledge of things that informs us that there is a sign (*De Magistro*, X, 33–34). Knowledge of things is therefore a preliminary and Augustine bends his linguistic concept in a teleological direction: it is our interior Master who reveals how things are.

We do not, however, need to follow him in this line of reasoning to be able to appreciate a very important observation: that words as signs have the power of reminding us of things that we have come to know about through other means. In other words, linguistic signs are commemorative as the two following extracts show us:

Thus with words we do nothing but call attention while the memory which is attached to the words being called to mind remind us of the very things of which the words are a sign. (*De Magistro*, I, 2)

Once one is familiar with the thing then knowledge of the words becomes perfectly possible; but if only the words are heard then not even they will be learnt.

So the words we know we do not learn, or those which we do not know we cannot say that we have learned them, unless we have perceived their meaning; this happens not from hearing the sounds uttered but with the knowledge of the things which are meant. When people say words it is perfectly right to talk about knowing or not knowing what they mean; if we know the thing words rather than teach us what it is they remind us of it (*commemorari potius quam discere*); if we do not know it, they do not even remind us but perhaps they cause us to search (*ad quaerendum admoneri*). (*De Magistro*, XI, 36).

And with this we can consider the circle to have been completed, which allows Augustine to unite in one category both linguistic and non-linguistic signs. Both have in common the fact that they are commemorative signs and, as signs, the appropriate model that can be applied to them is that of inference. Augustine also claimed that words as signs get us to look for meaning; they do not simply supply it as the fruit of a given equational match.

7. Augustine and Saussure

At this point, it is possible to compare Augustine's process with that of Saussure. First, however, it must be noted that this comparison does not mean we are implying some kind of dependence of the latter on the former or historical continuity between the two since too many centuries separate their work and the relative starting points are radically different. However it is striking that, although in radically different ways, both tend to propose a general category of the sign that gathers together all the various types. Augustine makes a move that is both symmetrical and a mirror image of what Saussure does: the latter united the two theories and two classes of sign, setting up the linguistic sign as the guiding principle while Augustine subsumes all types of sign within the class of non-linguistic signs.

Augustine unites non-linguistic and linguistic signs under the category *signum*, a Latin expression that corresponds to the Greek term *semeion*, which we saw used by Aristotle and by the post-Aristotelian schools to indicate non-linguistic signs. Saussure, on the other hand, defines the characteristics of the linguistic sign and claims that linguistics can become the general model for semiology even though language represents just one particular system: "even though it will have to include in the system other kinds of signs."[7]

At this point, one issue is to decide which of the two operations, Augustine's or Saussure's, is the most productive.

A useful contribution on this point is that of Umberto Eco's *Signs*, part of his book *Semiotics and the philosophy of language* (1986), in which he organizes his argument in two stages; first, he expresses his doubts about the way Augustine united linguistic signs under the model of the non-linguistic signs:

From the moment in which Augustine introduces verbal language among signs, language starts to appear in an awkward position. Being too strong, too finely articulated and therefore scientifically analyzable (and the work of the Hellenistic grammarians must be kept in mind in this respect), language could hardly be the object of a theory of signs born in order to describe the relationship between natural events, so elusive and generic (and we will see how much the Stoics' inference was epistemologically open to a continuum of relationships of necessity and weakness). Since language was increasingly believed to be the semiotic system which could be analyzed with the most profit (a careful study of this aspect of the history of semiotics would be very worthwhile) and the system which could serve as a model for all other systems (translating every other semiotic onto the plane of its content), the model of the linguistic sign gradually came to be seen as the semiotic model par excellence. (Eco 1986: 34)

But Eco comes to the conclusion that Saussure's model has even more serious defects, due to the fact that he proposes a relationship between signifier and signified that has crystallized into a form of flat equivalence:

By the time this conclusion was reached (the definitive sanction took place with Saussure), the linguistic model was crystallized into its "flattest" form, the one encouraged by the dictionaries and unfortunately, by a lot of formal logic which had to fill its empty symbols only for the sake of exemplification as well. As a consequence, the notion of *meaning as synonymy* and as essential definition began to develop. (Eco 1986: 34)

Eco then concludes that the general model within which one should think of the sign is essentially an inferential model based on the concept of sign as an encyclopaedia rather than as a dictionary, since there is no such thing as mere equivalence but there are always implications: the cases where there is an equational layout (as in real dictionaries) this comes from a catacresisization of the inferential model in its flattest form. The inferential model forms a bridge in the direction of Peirce's semiotic concept of the centrality of abduction: "I shall maintain that inferential processes (mainly under the form of Percean *abduction*) stand at the basis of every semiotic phenomenon" (Eco 1986: 8).

The inferential model allows one to subsume under it superficially inhomogeneous entities, such as linguistic and non-linguistic signs more

easily than the model does. Its compatibility with Peirce's model comes from the fact that Peirce calls it a sign only when a particular expression is in a triadic relationship, in which the third term, the interpretant, generates a new interpretation and so on in a process of unlimited semiosis. From this point of view, a sign will always stand for something else but in such a way that the relationship does not exhaust the meaning potential of the sign in that a sign will always lead us to find out something new (*CP* 8.332).

8.   Conclusion

It seems to be accepted then that the semiotic model found in Augustine at the beginning of what Deely defines as the Latin era is represented as a model that is valid in the postmodern era. I would, however, like to highlight the fact that within structuralism, which Deely assigns to the modern era, there was an identifiable intellectual voice coming from within that movement but that at the same time represented a critical conscience and that caused a revolution from the inside: that of Emile Benveniste. His conception of the linguistic sign moves radically away from the equational model. Benveniste on various occasions highlights the fact that the word as a sign opens up a plurality of meanings that become defined close down only when they become part of an utterance: "Nous posons pour principe que le sens d'une phrase est autre chose que le sens des mots qui la composent" (Benveniste 1974: 226). The same concept is repeated a few pages later: "Sur ce fondement sémiotique, la langue-discours construit une sémantique propre, une signification de l'intenté produite par syntagmation de mots où chaque mot ne retient qu'une partie de la valeur qu'il a en tant que signe" (Benveniste 1974: 229). And again: "Or le message ne se réduit pas à une succession d'unités à identifier séparément; ce n'est pas une addition de signes qui produit le sens, c'est au contraire le sens (l' "intenté"), conçu globalement, qui se réalise et se divise en "signes" particuliers, qui sont les mots" (Benveniste 1974: 64).

The closing down of meaning happens only through the discourse situation or in the act of utterance, which is new each time it is realized according to new space-time coordinates. And so the utterance too, as a closing down of meaning is presented as extremely mobile in that, in its turn, it is open to infinite realizations, each different from the other, because of the different situations in which they are realized. What is more, Benveniste's reference to *intenté*, which we could translate as the fruit of the communicative intentions of the speaker, directs the sense of the utterance towards the other interlocutor in the discourse situation.

In this sense, in Benveniste we can find a notion of sign that is different from that to be found in Saussure, as the *clôture* of the linguistic system is broken by the utterance dimension that allows us to see an opening up of the relationship between sign and its various potential meanings in the infinity of utterance situations. For this reason, semiolinguistic concepts like that of Benveniste, though they have sprung from the ribs of structuralism, could rightfully appear under the heading of what Deely defines as postmodern.

Notes

1. Deely also (2001: 673), notes that the decisive trait in Saussure's proposal can be traced back to the perspective of founding a new discipline, that of "semiology," as a systematic treatment of arbitrary signs, which correspond for the most part with linguistic signs; Saussure's aim was to include within that discipline also non-arbitrary and non-linguistic signs even though it was emphasised that linguistic and arbitrary signs "realize better than others the ideal of the semiological process."
2. The English translation of the *Cours* is that used by Deely.
3. It was Eco (1986: 34) who proposed an opposition of two theoretical models emerging from the history of theoretical treatments of the sign: an equational and an inferential model.
4. The fact that the link is a natural one does not mean that the expression cannot be used to lie, as often happens in entertainment and as happens in everyday life contexts. The natural character is demonstrated by a certain universality of the link that is found constantly in different cultures as Ekman and Friesen (1969) have shown in their work on expressive body language known as "affect displays."
5. See other, sometimes different, treatments on the same subject: Pépin (1985); Chiesa (1986); Manetti (1993); Sedley (1996); Lo Piparo (2003).
6. Cf. Simone (1969), who defines Augustine's semiology as being centered on the concept of communication, unlike the previous linguistic theories, which were mainly centered on the concept of "signification."
7. It is thus not a case of "reduc(ing) the Latin landscape to a flat extension of modern idealism, and incorporate(ing) Augustine into the present accordingly," as Deely (2001: 670 note 2, 418, note 21) claims I did (Manetti 1993: 160). Then, as now, the comparison was meant to be between two authors who are profoundly different who are performing an operation that is to some extent similar (unifying the two theories, that of non-linguistic signs and that of language) but in radically different ways — Augustine using the inferential model of the non-linguistic sign and Saussure in the equational model of the linguistic sign.

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Four ages of underrating: Philosophy and zoösemiotic issues

DARIO MARTINELLI

Abstract

The present article focuses on the most significant instances of intrinsically semiotic philosophical reflections about animal cognition and communication. It ideally acts as a small complement to the massive treatise on anthroposemiotics provided by Four ages of understanding, *and indeed deals only (if only is the word) with those scholars and thinkers mentioned in John Deely's work, selecting among them those, like Hume, Locke, and others, who approached zoösemiotic issues in diverse ways (theoretical, ethical, or explicitly proto-semiotic).*

Keywords: anthrozoosemiotics; animals; cognition; ethics.

When you deal with such an enormous work as John Deely's *Four ages of understanding*, it is quite difficult to say something that the author has not already said, implied, or — more probably — described in every detail. Deely's ambition was to write a text that could be a methodological point of reference, and at the same time could produce new and important theoretical reflections for the semiotic debate in general and the postmodern one in particular. A reading of human thought that is brilliant, original, at times neurotic (John will forgive me for this, since I had a first-hand experience of the writing process of his monumental index)[1] with one big leading character that emerges in crescendo: the sign, in each of its theoretically constitutional parts.

For those — like myself — who deal with zoösemiotics, Deely's work offers interesting elements for reflection, though one must be aware that zoösemiosis is after all a marginal feature in the treatise. *Four ages of understanding* is doubtlessly a book focusing on anthroposemiosis, and this is what it should do, given its programmatic intentions. This, however,

does not mean that the zoösemiotician is not properly stimulated. On the contrary, zoösemiotics owes to Deely some of its most important theoretical formulations, plus a lovely eccentric dieresis, that — in Deely's own words — allowed zoösemioticians to deal with all animals, instead of only the ones kept in captivity. Some fundamental topics in the whole zoösemiotic context are very central in Deely's works, *Four ages* included. I am referring to the theory of Umwelt, to the hypotheses on the definition of language, to the studies on interspecific communication (on which Deely, unlike myself, fully shares Sebeok's sarcastic skepticism), and to the theory of evolution.

At the same time, in contexts foreign to zoösemiotics, Deely focuses his attention on some philosophers and scholars, according to a selection whose common denominators are the sign and the theories of sign. Such a criterion leads, on the one hand, to providing characters such as Porphyry and Poinsot with a higher status than what is usually granted in traditional history of philosophy. On the other hand, the selection excludes — or mentions only briefly — traditionally important figures such as Schopenhauer or Voltaire.

To deal with the latter group, apart from being inevitably pleonastic (given the wide attention guaranteed by other texts), is — as a matter of fact — rather out of context, in that it would fail to create a connection between Deely's work and the zoösemiotic context. This is why I would like to use the notions illustrated in the book as a sort of hypertext, i.e., as "clickable" areas from which virtual text windows can be opened. In particular, apart from the purely semiotic fact, there is another factor shared in common by Deely's central figures:[2] almost all of them speculated on animal communication, and — more often — on the human/other-animal relation. Usually, the terms of such speculations are typically anthropocentric, but every now and then we also find precursors of the biocentric approach.

The history of philosophical reflections on nonhuman animals is a peculiar one, that — as a matter of fact and with very few exceptions (see Descartes' mechanism) — proceeded at the margins of the "official" human-related one. Because of its marginality, this history has very often been underrated, almost as if it was for philosophers a picturesque *divertissement* among the serious speculations.

In a specific history of zoösemiotics, however, such diversions are of fundamental importance. The aim of this article, thus, is to focus on some of Deely's key philosophers (namely, Plato, Aristotle, Porphyry, Thomas Aquinas, Descartes, Locke, Hume, and Kant), in the light of what they had to say about zoösemiotic issues. To show this marginal, parallel history seems to me a fair way (one of the very few avail-

able) to add something interesting to such a complete text as the *Four ages*.

1. The semiotic value of the human/other-animal relationship

Before proceeding, permit me to explain why I consider speculations on the human/other-animal relationship as part of the zoösemiotic discourse. Indeed, to say that zoösemiotics concerns animal communication is not only generic; it is probably imprecise, too, for it paradoxically gives, through an omni-comprehensive expression, a quite partial picture of reality.

In my opinion, at least two main branches should be distinguished within zoösemiotics, both to be divided, in turn, in two more subbranches. On the one hand, I shall refer to zoösemiotics in the traditional sense, i.e., a discipline dealing with the animal behavior "communication," through the most obvious theoretical tools of semiotics. I shall call this branch *ethological zoösemiotics*. In turn, ethological zoösemiotics can be divided into a *traditional* current and a *cognitive* one. The former includes the studies performed by the early Sebeok, or Lindauer, or other scholars belonging to Lorenzian or behaviorist traditions. Within the field of cognitive zoösemiotics, I shall mention at least the latest Sebeok, Cimatti, and Bekoff (not to mention strong anticipations provided by Darwin).

As for the second branch of zoösemiotics, which I here call *anthropological*, I intend to refer to the studies dealing with the semiotic interaction between human beings and other animals, including those of cultural and/or sociological type. Interspecific communication experiments are one example (although very sceptical, Sebeok dealt quite often with these, and so did Petrilli, Deely, Cimatti, Bekoff and others). Such types of study fall under a subcategory of anthropological zoösemiotics, which I call *communicational*. This term refers to the contexts where human-animal interaction is of a communicative type, i.e., interactive, reciprocal, and intentional. Moreover, studies of applied zoösemiotics, such as human/pets or human/cattle interaction, fall under this group, too.

The second subcategory within anthropological zoösemiotics is, by consequence, named *significational*: here, the nonhuman animal is a pure source of meaning, an object, rather than a subject, of signification. The model is thus of an ecosemiotic type: whereas, indeed, ecosemiotics is the study of human representation of nature, this typology of zoösemiotics deals with the human representation of other animals. It is evidently the

case of myths, tales, allegories, but also of systematic classifications, such as taxonomy.

It thus appears that ethological zoösemiotics has a close relationship with natural sciences (starting, obviously, from ethology), while anthropological zoösemiotics is a closer relative of human sciences, especially the so-called anthrozoology and the social sciences, which nowadays show an increasing interest in animal-related issues. In a way, the definition of zoösemiotics provided by Nöth (1990: 147) appears as the most appropriate for this framework: zoösemiotics 1) is interdisciplinary, and 2) occupies an intermediary position between natural and human sciences.

The reflections I will propose from here on primarily seek to investigate the human/other-animal relation (with few exceptions, like the case of John Locke), and are thus very likely to fit the anthropological zoösemiotic section.

1.1.   *Plato*

The relation that Plato establishes with reality is at least creative. Plato does not speak of reality as it is, but rather as it should be: his main speculations (the Demiurge above all) aim somehow at the constitution of a better world, founded on intelligence and not on chance. This concept fits perfectly with Nature and its constitutive elements: it is a human duty to refine the natural order, ‘‘collaborating’’ with the Demiurge in order for Beauty to prevail over *Kaos*.

Plato believes that life began happy, without concepts such as property, hunting, war, and other types of violence. He describes this original life as a time when human beings and other animals established relations and conversations mostly philosophical in character, exchanging information concerning each other's knowledge. The work wherein Plato mostly reflects upon nonhuman animals is the *Timaeus*, i.e., — most probably — the most delirious of his writings, an off-the-limits attempt to mathematize reality at all costs. According to Plato, each body is provided with a soul, plants included, although these latter are much more limited than other beings:

For everything that partakes of life may be truly called a living being, and the animal of which we are now speaking[3] partakes of the third kind of soul, which is said to be seated between the midriff and the navel, having no part in opinion or reason or mind, but only in feelings of pleasure and pain and the desires which accompany them. For this nature is always in a passive state, revolving in and about itself, repelling the motion from without and using its own, and accordingly

is not endowed by nature with the power of observing or reflecting on its own concerns. Wherefore it lives and does not differ from a living being, but is fixed and rooted in the same spot, having no power of self-motion. (Plato 2004)

The soul is strictly related to the body, for the former determines the aspect of the latter, as expression of guilt or merit. Indeed, human and nonhuman beings were born with faults for which to be punished. To be male or female, to belong to one species instead of another, are all exact consequences of such faults or merits. In particular, almost all nonhuman animals were in the past human beings that wasted their life in some way.

The animal world has two dimensions. One is the divine: animals are not divine, but even so they anyway "tend" towards the Divine, the Light, the Perfection, and the Good. The other dimension is that of ipseity (i.e., reflected on the animal itself): this is an obscure, imperfect, and fallacious dimension. All living beings have this double face, and their Light depends on how close they are to the Divine. The maximum distance from Divine implies the presence of just a single weak fragment of light.

Further, it is no surprise that, in *Timaeus*, Plato also attempts an explanation on the origin of animals. There is no real need to make further premises, for the quotation is self-evident:

The race of birds was created out of innocent light-minded men, who, although their minds were directed toward heaven, imagined, in their simplicity, that the clearest demonstration of the things above was to be obtained by sight; these were remodeled and transformed into birds, and they grew feathers instead of hair. The race of wild pedestrian animals, again, came from those who had no philosophy in any of their thoughts, and never considered at all about the nature of the heavens, because they had ceased to use the courses of the head, but followed the guidance of those parts of the soul which are in the breast. In consequence of these habits of theirs they had their front-legs and their heads resting upon the earth to which they were drawn by natural affinity; and the crowns of their heads were elongated and of all sorts of shapes, into which the courses of the soul were crushed by reason of disuse. And this was the reason why they were created quadrupeds and polypods: God gave the more senseless of them the more support that they might be more attracted to the earth. And the most foolish of them, who trail their bodies entirely upon the ground and have no longer any need of feet, he made without feet to crawl upon the earth. The fourth class were the inhabitants of the water: these were made out of the most entirely senseless and ignorant of all, whom the transformers did not think any longer worthy of pure respiration, because they possessed a soul which was made impure by all sorts of transgression; and instead of the subtle and pure medium of air, they gave them the deep and muddy sea to be their element of respiration; and hence

arose the race of fishes and oysters, and other aquatic animals, which have re-
ceived the most remote habitations as a punishment of their outlandish ignorance.
These are the laws by which animals pass into one another, now, as ever, chang-
ing as they lose or gain wisdom and folly. (Plato 2004)

Regarding "folly," one should also mention Plato's explanation about the
origin of women. He claims that women are the result of men, who, in
previous lives, had been cowardly and unjust.

The Laws are definitely more interesting from an ethical point of view.
Here, Plato firmly condemns all types of hunting, including hook-fishing
and traps, the two latter particularly blamed, as they are metaphors of
falsity and lie, and so opposed to the virtues the ideal citizen of the *polis*
is supposed to have. Plato believes that violence against other animals is
the basis of war and other human injustices. Already in the *Republic*, he
had anticipated this topic, proposing a vegetarian (thus, cruelty-free) diet
for philosophers and politicians, in a very similar fashion to what Pytha-
goras had already proposed:

Let us then consider, first of all, what will be their way of life, now that we have
thus established them. Will they not produce corn, and wine, and clothes, and
shoes, and build houses for themselves? And when they are housed, they will
work, in summer, commonly, stripped and barefoot, but in winter substantially
clothed and shod. They will feed on barley-meal and flour of wheat, baking and
kneading them, making noble cakes and loaves; these they will serve up on a mat
of reeds or on clean leaves, themselves reclining the while upon beds strewn with
yew or myrtle. And they and their children will feast, drinking of the wine which
they have made, wearing garlands on their heads, and hymning the praises of the
gods, in happy converse with one another. And they will take care that their fam-
ilies do not exceed their means; having an eye to poverty or war ... of course they
must have a relish-salt, and olives, and cheese, and they will boil roots and herbs
such as country people prepare; for a dessert we shall give them figs, and peas,
and beans; and they will roast myrtle-berries and acorns at the fire, drinking in
moderation. And with such a diet they may be expected to live in peace and
health to a good old age, and bequeath a similar life to their children after them.
(Plato 2000)

1.2.   *Aristotle*

The contribution to biology and animal studies provided by Aristotle is
extremely controversial. On the one hand, we have a first great example
of systematic observation of animal species, in a way that remained a
point of reference for the next several centuries. On the other hand, the

number of aberrations and mistakes of these observations is amazingly high.

In the book *On the parts of animals*, Aristotle soon makes clear the difference between his approach and that of his maestro Plato:

We therefore must not recoil with childish aversion from the examination of the humbler animals. Every realm of nature is marvellous: and as Heraclitus, when the strangers who came to visit him found him warming himself at the furnace in the kitchen and hesitated to go in, reported to have bidden them not to be afraid to enter, as even in that kitchen divinities were present, so we should venture on the study of every kind of animal without distaste; for each and all will reveal to us something natural and something beautiful. (Aristotle 1999a)

Aristotle is at the same time an attentive observer of Nature, and a philosopher seemingly incapable of interpreting fairly his observations when they are somewhat in contrast with his whole, internally coherent, philosophical system. Very paradigmatic is his definition of the *Scala Naturae*, which served as a model for all classifications to come before Linnaeus. Though based on a principle of finalistic continuity of species and of correlations between organs, the scale aprioristically refuses the proto-evolutionary principles postulated by Anaximander; in the Aristotelian classification we simply find a hierarchical scale from the most to the least perfect being, whose levels are organized in such a way that — if we were speaking of a twentieth century philosopher — we should consider racist, sexist, classist, and speciesist, all at once.

Aristotle's wrote no less than three works on biology: *History of animals*, *On the parts of animals*, and *Reproduction of animals*. As already mentioned, clamorous mistakes are not missing. Aristotle seems incapable of understanding the function of muscles and the nervous system, of distinguishing between veins and arteries, and of fully comprehending the reproductive act (to mention one, semen is to Aristotle merely aimed at sexual excitement). As if this was not enough, Aristotle rejects Alcmaeon's opinion that the brain is the actual central organ of the body, maintaining that its sole function is to chill blood. To Aristotle, the heart is the actual core of all organs.

Having said this, several other considerations in his works are absolutely remarkable. The observations on the anatomy of octopus, cuttlefish, crustaceans, and many other marine invertebrates are really accurate, and could only have been made from direct experience (which means vivisection, mainly). Aristotle distinguishes cetaceans from fish, describes the embryological development of a chick, the chambered stomachs of ruminants, and the social organization of bees. Most of his obser-

vations were confirmed only many centuries later. Aristotle groups together animals with similar features into genera (although the term is used in a much broader sense than by present-day biologists) and then distinguishes the species within the genera. Animals are then divided into two types: those with blood and those without blood (or at least without red blood). Such a distinction closely corresponds to our distinction between vertebrates and invertebrates. The blooded animals (the vertebrates) include five genera: viviparous quadrupeds (mammals), birds, oviparous quadrupeds (reptiles and amphibians), fishes, and whales (Aristotle did not know they were mammals). The bloodless animals are classified as cephalopods (such as the octopus); crustaceans; insects (which includes spiders, scorpions, and centipedes, in addition to what we now define as insects); shelled animals (such as most mollusks and echinoderms); and "zoophytes," or "plant-animals," which supposedly resemble plants in their form, such as most cnidarians.

However, in terms of anthropological zoösemiotics, I shall insist on the concept of *Scala Naturae*. To Aristotle, there are three categories subordinated to the free male human, as they are simply "useful" to the latter, namely nonhuman animals, women and slaves:

The living creature ... in the first place, consists of soul and body: and of these two, the one is by nature the ruler, and the other the subject ... And it is clear that the rule of the soul over the body, and of the mind and the rational element over the passionate, is natural and expedient; whereas the equality of the two or the rule of the inferior is always hurtful. The same holds good of animals in relation to men; for tame animals have a better nature than wild, and all tame animals are better off when they are ruled by man; for then they are preserved. Again, the male is by nature superior, and the female inferior; and the one rules, and the other is ruled; this principle, of necessity, extends to all mankind.

Where then there is such a difference as that between soul and body, or between men and animals (as in the case of those whose business is to use their body, and who can do nothing better), the lower sort are by nature slaves, and it is better for them as for all inferiors that they should be under the rule of a master. For he who can be, and therefore is, another's and he who participates in rational principle enough to apprehend, but not to have, such a principle, is a slave by nature. Whereas the lower animals cannot even apprehend a principle; they obey their instincts. And indeed the use made of slaves and of tame animals is not very different; for both with their bodies minister to the needs of life. (Aristotle 1999b)

Aristotle's philosophical-political system has demands for both natural and social hierarchies, the latter depending on the former. Of course, there is a difference between the human slave and the nonhuman animal: however, in terms of such a socio-natural setting, these differences are not

really relevant. What matters is, instead, *utility*. And Nature seems to obey this principle:

Property, in the sense of a bare livelihood, seems to be given by nature herself to all, both when they are first born, and when they are grown up. For some animals bring forth, together with their offspring, so much food as will last until they are able to supply themselves; of this the vermiparous or oviparous animals are an instance; and the viviparous animals have up to a certain time a supply of food for their young in themselves, which is called milk. In like manner we may infer that, after the birth of animals, plants exist for their sake, and that the other animals exist for the sake of man, the tame for use and food, the wild, if not all at least the greater part of them, for food, and for the provision of clothing and various instruments. (Aristotle 1999b)

The consequence of such a principle is almost predictable, and there is no need to say how highly influential it was for the whole of Western thought in the following centuries:

Now if nature makes nothing incomplete, and nothing in vain, the inference must be that she has made all animals for the sake of man. And so, in one point of view, the art of war is a natural art of acquisition, for the art of acquisition includes hunting, an art which we ought to practice against wild beasts, and against men who, though intended by nature to be governed, will not submit; for war of such a kind is naturally just. (Aristotle 1999b)

In Aristotle's hierarchy, there is no real interaction between superior and inferior categories. The former act upon the latter, they impose an order and affect their nature and behavior, without in turn being affected in any way. Such is reality. If Plato wanted reality to be adequate to Ideas and Forms, Aristotle wants the exact contrary. The result is a totally opposite idea of what justice and order are. A common feature is the total exclusion of any principle of evolution: the order (to be established, for Plato; and already established, for Aristotle) is something stable and unmoving.

1.3.   *Porphyry*

If John Deely showed the monumental contribution of Porphyry in the field of sign theory, I hope I can give an idea of how monumental Porphyry's role is as an animal rights philosopher. His writing *On abstinence from animal food* (*Perì Apokhês Empsykhon*, also known in English as *On abstinence from killing animals*) is an extraordinarily rich and strong work

in defense of nonhuman animals. Although firmly opposed to Christianity (he also wrote a pamphlet named *Katà Khristianon, Against the Christians*, of which very few pages have been preserved), Porphyry was a fine and attentive reader of the Bible and other Christian texts, and knew perfectly the Hebrew language.[4] His opposition started then from knowledge and not from prejudice. Even Augustine, who knew Porphyry was an enemy of Christianity, could not help defining him as an "eminent philosopher."

Already in the *Katà Khristianon*, written in 268, Porphyry attacks Paul of Tarsus on the issue of eating meat. In the First Letter to Corinths, Paul had clearly stated that humans should eat "everything the butcher sells" without feeling guilty, for God owns every living being, and every living being is at human disposal. Immediately after *Katà Khristianon*, Porphyry wrote *Perì Apokhês Empsykhon*, a neoplatonic and — most of all — neopythagoric treatise on animal life, vegetarianism, justice, and peace. Borrowing from Plotinus, Porphyry maintains that we are all intellectual entities that are tied to the sensible because of two forces: our incapacity to remain endlessly bound to the intelligible, and a gravitational force towards the "lower world." The most efficient ways to "go back" to the realm of intelligible are justice and vegetarianism. Similar to Plato, then, but with less idealism and more ideology, Porphyry puts a strong emphasis on ethics in his work, telling us how, in his opinion, life and people should be. Porphyry fears the destruction of truth and justice, but — unlike Plato — does not speculate only abstractly on the issue: he wants *lógoi* and *érga*, i.e., knowledge and action.

According to Porphyry's vegetarianism (and his invitation for every philosopher to become vegetarian), the issue does not only concern eating meat: it is a much more radical change, which goes in contrast with the customs of the polis, with ritual slaughtering and sacrifices of religion, and — in sum — with a whole sociopolitical system. Like Plato and Pythagoras, Porphyry also considers violence on animals as an "appetizer" for war. The first instruments used for killing nonhuman animals are exactly the same used in the first conflicts among humans. Hunting and war are inevitably bound, both metaphors of fraud and falsity, both the result of an original violation: not really eating the apple, but eating meat. "For to whom is it not manifest that justice is increased through abstinence? For he who abstains from everything living, though he may abstain from such animals as do not contribute to the benefit of society, will be much more careful not to injure those of his own species" (Clark 2000: 137).

In the *Perì Apokhês Empsykhon*, Porphyry demolishes one by one the arguments of the philosophers hostile to vegetarianism (peripatetics and stoics, in particular), and — in particular — reverses the idea that religion

should encourage meat consumption: to him, indeed, eating meat is no less than a violation of God's will, or at least a misinterpretation of it. Sacrifices and other forms of violence on animals are to Porphyry a vehicle for evil demons to penetrate inside people.

What are then the arguments used by Porphyry to fight the "enemies" of animals? At least three of them fall under the domain of cognitive zoösemiotics:

1. Animals do think and communicate. Differently from stoics and peripatetics, Porphyry maintains that we can find the *logos*, the discourse, among nonhuman animals, and that this discourse can also reach perfection.
2. Animals also have the "inner discourse": the general organization of their organism is similar to the human one, e.g., they suffer the same pathologies. Not only are animals sensible, they probably are more so than humans. To maintain that a different physical constitution corresponds to the absence of reason and sensibility, is like saying that gods are not sensible either, because their physical constitution is also different from the human one. The difference between humans and other animals is a matter of more/less, rather than presence/absence.

    And is it not absurd, since we see that many of our own species live from sense alone, but do not possess intellect and reason; and since we also see that many of them surpass the most terrible of wild beasts in cruelty, anger, and rapine, being murderous of their children and their parents, and also being tyrants and the tools of kings [is it not, I say, absurd] to fancy that we ought to act justly towards these, but that no justice is due from us to the ox that ploughs, the dog that is fed with us, and the animals that nourish us with their milk and adorn our bodies with their wool? Is not such an opinion most irrational and absurd? (Porphyry 2000: 139)

3. Animals are intelligent and rational. Here, Porphyry mentions the great amount of information collected by ancient philosophers on the topic. To be able to take care of one's own interests is a first important sign of intelligence ("each animal knows where it is weak and where it is strong, and it protects the former and makes use of the latter, as the leopard uses its teeth, the horse its hooves and the bull its horns, the cock its spur and the scorpion its sting"). *Ratio*, to Porphyry, does not originate from learning, nor from memory, and that applies to all beings, including gods. The sole fact that we cannot see the world through their own senses and figure out their own way of reasoning, is not a good excuse to state that *ratio* is missing (first

gasps of Umwelt theory?). Moreover, nonhuman animals understand our language to many extents, and perceive the diverse signs.

4. Both humans and nonhumans are part of the same ethical system. Both search for and have a sense of justice ("Who does not know how animals that live in groups observe justice towards each other?"), both are victims of cruelty and fights. Violence is, in both cases, a sign of starving and desperation. Moreover, they are reciprocally necessary, and that is when humans break the balance: in exploiting and killing other animals that are not necessary to their surviving, human beings show off a superiority that clearly reveals their evil nature. This unnecessary violence can and must be avoided: the first important step, says Porphyry, is vegetarianism.

> ... if we depend on the argument of necessity or utility, we cannot avoid admitting by implication that we ourselves were created only for the sake of certain destructive animals, such as crocodiles and snakes and other monsters, for we are not in the least benefited by them. On the contrary, they seize and destroy and devour men whom they meet — in so doing acting not at all more cruelly than we. Nay, they act this savagely through want and hunger; we from insolent wantonness and luxurious pleasure, amusing ourselves, as we do, also in the Circus and in the murderous sports of the chase. By thus acting, a barbarous and brutal nature becomes strengthened in us, which renders men insensible to the feeling of pity and compassion. Those who first perpetrated these iniquities fatally blunted the most important part of the (civilized) soul. Therefore it is that Pythagoreans consider kindness and gentleness to the lower animals to be an exercise of philanthropy and gentleness. (Porphyry 2000: 54–55)

Porphyry continues by referring to the origins of human life. At that time, humans were vegetarian by nature: they would live collecting fruits and vegetables, and — apparently — not only were they healthier, but also more peaceful and worry-free.[5] Then came agriculture, breeding, domestication, hunting, and finally wars. The Eden became a place for killers. Porphyry maintains that the development of wars and fights went hand in hand with breeding and property of lands and animals. The evolution of the human/other-animal relationship is thus a key-event to interpret human civilisation. As Gino Ditadi comments, "The animal case becomes in Porphyry the decisive element for defining a civilization based on pain and religious sacrifices: the sacrifice of human beings in wars is symmetric to that of animals in religious rituals, both being perpetrated with substitutive victims" (Ditadi 1994: 71–72, my translation).

Cases of communities opposed to this status quo are not missing. Porphyry mentions the case of Sparta, the Essenes, the Persians, and the In-

dians. Particularly, these last are a clear proof of his theories. Provided with generous and rich natural resources, the Indians do not need to use violence for surviving; moreover, their religions make a clear point on the unity of living beings. Poverty, starving and violence go hand in hand. The solution goes through a more equal distribution of resources, the state (advised by philosopher-legislators) being the guidance in this process.

1.4.   *Thomas Aquinas*

In a way, Thomas Aquinas can be considered the exact opposite of Porphyry. Whereas the latter had promoted a love for other animals, and had condemned conflicts and violence, the *Doctor Angelicus* seems to be very concerned with legitimating human total property and exploitation of all species. The greatest intellectual authority of the Catholic Church, Thomas Aquinas is the main figure responsible for the penetration of Aristotelian ideas in the Western Christian world: in fact, his own work can be read as an attempt to conjugate Aristotle (whom he calls "the Philosopher") and the Christian precepts. And this, among other things, implies avoiding too mystical and spiritual philosophical formulations (as those of Ugo of San Vittore, for instance), which Thomas replaced with a firm establishment of dogmatism, ratio and hierarchies.

   In his *Summa Theologiae*, Thomas makes a clear point of the difference between humans and other animals. The human being is an intellectual creature, master of his actions; all other animals are subordinated creatures, functional to the intellectual one. The Aristotelian framework becomes soon clear: in the natural world, just like the political one, there are masters and slaves, subjects and objects. The latter are at disposal of the former. Humans are the only ones who know and perceive God, and therefore they are the sole beings created for their own sake. All other animals are created for sake of humans. This is the reason why to kill them is not a fault at all.

There is no sin in using a thing for the purpose for which it is. Now the order of things is such that the imperfect are for the perfect, even as in the process of generation nature proceeds from imperfection to perfection. Hence it is that just as in the generation of a man there is first a living thing, then an animal, and lastly a man, so too things, like the plants, which merely have life, are all alike for animals, and all animals are for man. Wherefore it is not unlawful if man use plants for the good of animals, and animals for the good of man, as the Philosopher states.

Now the most necessary use would seem to consist in the fact that animals use plants, and men use animals, for food, and this cannot be done unless these be deprived of life: wherefore it is lawful both to take life from plants for the use of animals, and from animals for the use of men. In fact this is in keeping with the commandment of God Himself: for it is written: "Behold I have given you every herb ... and all trees ... to be your meat, and to all beasts of the earth"; and again: "Everything that moveth and liveth shall be meat to you." (Aquinas 2003)

The general invitation to kindness and pity that can be found in the Scriptures, says Thomas, is not to be intended as a duty. Humans should just be careful not to exceed in violence on animals, since, in future, that could turn into violence on other humans. If anything, in such cases when an animal is owned by a person, to kill that animal is an offence to the owner, exactly as killing a slave is an offence to his/her master: "He that kills another's ox, sins, not through killing the ox, but through injuring another man in his property. Wherefore this is not a species of the sin of murder but of the sin of theft or robbery" (Aquinas 2003)

Finally, Thomas discusses whether animals should be loved with Christian charity. The answer is No: rational creatures like humans cannot be friendly with irrational ones. Charity towards animals is exercised by God only, but this happens only because they are useful to the privileged creatures.

1.5.   *Poinsot*

In terms of semiotics, the main interest of Poinsot, as a follower of Aquinas, is his firm emphasis that in sensation and sense perception together all animals are as one in their dependency upon semiosis.

1.6.   *Descartes*

Descartes' theories on animals are probably among the very few on the subject to be well-known. Animal-rights activists have always been harshly critical towards Cartesian conceptions, mentioning them as the typical example of human prejudices towards other animals. What is certain is that the Cartesian idea of the animal-machine was a major breakthrough in a discussion that, until then, was mostly animated by theological, ethical, and political reflections.

Descartes' philosophy, as always happens to the most influential thinkers, is to a large extent controversial. While it is generally acknowl-

edged that he marked the beginning of modern philosophy, one cannot avoid remarking that (as Gilson has shown) many of his reflections, starting from his metaphysics, were in fact animated by a truly medieval spirit.

The opinion expressed by Descartes on animals is quite difficult to misunderstand. For once, a philosopher's speculation is firm and clear: animals are totally thoughtless and conscienceless. They are simple mechanisms. To maintain that a cat thinks is to Descartes as silly as stating that a clock does. Descartes does not distinguish between mechanism and organism: his view is a form of reductionism that replaces organic structures with mechanical components. When used as metaphor, the comparison actually works: the problem with Descartes is that he presents it as the full explanation of life. Now, we all understand that there is quite a difference between a machine and an organism. As Ditadi remarks:

Machines are built, organisms grow. This means that a comprehension of organisms must focus on processes. Cells, for instance, can be understood only on the basis of relational processes that reflect the dynamism of an organic system. While the activities of a machine are determined by its structure, such a relation is reversed in organisms, for their structure is determined by processes. Organisms display a high degree of flexibility and plasticity. Machines work according to linear cause/effect chains, organisms work with retro-action and are an open system, in a constantly dynamic balance. (Ditadi 1994: 116, my translation)

Descartes does not deny the existence of emotions in animals: he simply maintains that they have no awareness of them whatsoever. All bodies are machines, in the Cartesian system, including also human bodies:

I had shown what must be the fabric of the nerves and muscles of the human body to give the animal spirits contained in it the power to move the members, as when we see heads shortly after they have been struck off still move and bite the earth, although no longer animated; what changes must take place in the brain to produce waking, sleep, and dreams; how light, sounds, odors, tastes, heat, and all the other qualities of external objects impress it with different ideas by means of the senses; how hunger, thirst, and the other internal affections can likewise impress upon it divers ideas; what must be understood by the common sense (sensus communis) in which these ideas are received, by the memory which retains them, by the fantasy which can change them in various ways, and out of them compose new ideas, and which, by the same means, distributing the animal spirits through the muscles, can cause the members of such a body to move in as many different ways, and in a manner as suited, whether to the objects that are presented to its senses or to its internal affections, as can take place in our own case apart from

the guidance of the will. Nor will this appear at all strange to those who are acquainted with the variety of movements performed by the different automata, or moving machines fabricated by human industry, and that with help of but few pieces compared with the great multitude of bones, muscles, nerves, arteries, veins, and other parts that are found in the body of each animal. Such persons will look upon this body as a machine made by the hands of God, which is incomparably better arranged, and adequate to movements more admirable than is any machine of human invention. (Descartes 2003)

However, there is a huge difference between humans and other animals, and that concerns the possession of a soul, expressed through *ratio* and language:

... it is highly deserving of remark, that there are no men so dull and stupid, not even idiots, as to be incapable of joining together different words, and thereby constructing a declaration by which to make their thoughts understood; and that on the other hand, there is no other animal, however perfect or happily circumstanced, which can do the like. Nor does this inability arise from want of organs: for we observe that magpies and parrots can utter words like ourselves, and are yet unable to speak as we do, that is, so as to show that they understand what they say; in place of which men born deaf and dumb, and thus not less, but rather more than the brutes, destitute of the organs which others use in speaking, are in the habit of spontaneously inventing certain signs by which they discover their thoughts to those who, being usually in their company, have leisure to learn their language. And this proves not only that the brutes have less reason than man, but that they have none at all: for we see that very little is required to enable a person to speak; and since a certain inequality of capacity is observable among animals of the same species, as well as among men, and since some are more capable of being instructed than others, it is incredible that the most perfect ape or parrot of its species, should not in this be equal to the most stupid infant of its kind or at least to one that was crack-brained, unless the soul of brutes were of a nature wholly different from ours. And we ought not to confound speech with the natural movements which indicate the passions, and can be imitated by machines as well as manifested by animals; nor must it be thought with certain of the ancients, that the brutes speak, although we do not understand their language. (Descartes 2003)

The problem with animals is thus the absence of soul. They are *res extensa*, but definitely lack *res cogitans*. The existence of the soul in humans is an indisputable fact: to deny this fact is as huge a mistake as denying the existence of God. In fact, to consider ''beasts'' as being provided with a soul is also a huge mistake, says Descartes, for it means to put up for discussion well-established theological and moral dogmas, on which the whole civilization is based. Instead, by keeping to Cartesian conceptions, civilization will progress:

. . . I perceived it to be possible to arrive at knowledge highly useful in life; and in room of the speculative philosophy usually taught in the schools, to discover a practical, by means of which, knowing the force and action of fire, water, air, the stars, the heavens, and all the other bodies that surround us, as distinctly as we know the various crafts of our artisans, we might also apply them in the same way to all the uses to which they are adapted, and thus render ourselves the lords and possessors of nature. And this is a result to be desired, not only in order to the invention of an infinity of arts, by which we might be enabled to enjoy without any trouble the fruits of the earth, and all its comforts, but also and especially for the preservation of health, which is without doubt, of all the blessings of this life, the first and fundamental one. (Descartes 2003)

Thus, Descartes' philosophy is highly ideological and guarantees supposedly scientific support to a conception highly promoted by Christianity: the absolute domain of humans on Nature. This is probably one of the reasons why Cartesianism was so successful in the following centuries, and — to some extent — is still alive in certain scientific environments. Together with Aristotle and Christianity, Descartes constitutes the most important step in the formation of the highly anthropocentric human attitude towards other animals.

1.7.   *Locke*

Apart from being one of the most important proto-semioticians, John Locke had a consistent interest for medical, chemical, and biological sciences. In contrast to Descartes, in Locke we do not find any division comparable to the Cartesian *rex extensa* and *res cogitans*. To him, matter itself is able to think. Neither do we find any suggestion that animal life is actually comparable to machines. The sole realm that can possibly be interpreted in terms of mechanism is, to Locke, the vegetal one; there, and there only, the subject is incapable of sensations and ideas. What marks the difference between animals and plants is perception.

Perception puts the difference between animals and vegetables. This faculty of perception seems to me to be, that which puts the distinction betwixt the animal kingdom and the inferior parts of nature. For, however vegetables have, many of them, some degrees of motion, and upon the different application of other bodies to them, do very briskly alter their figures and motions, and so have obtained the name of sensitive plants, from a motion which has some resemblance to that which in animals follows upon sensation: yet I suppose it is all bare mechanism; and no otherwise produced than the turning of a wild oat-beard, by the insinuation of the particles of moisture, or the shortening of a rope, by the affusion of

water. All which is done without any sensation in the subject, or the having or receiving of any ideas. (Locke 1959: 189)

Perception varies in grades according to the single capacities of each species. Animals are thus organisms provided with sense, memory, and ability to make plans and comparisons. In the *Essay concerning human understanding*, undoubtedly his last major work, Locke discusses both human and nonhuman memory and its capacity to activate reasoning.

This faculty of laying up and retaining the ideas that are brought into the mind, several other animals seem to have to a great degree, as well as man. For, to pass by other instances, birds learning of tunes, and the endeavors one may observe in them to hit the notes right, put it past doubt with me, that they have perception, and retain ideas in their memories, and use them for patterns. For it seems to me impossible that they should endeavor to conform their voices to notes (as it is plain they do) of which they had no ideas. (Locke 1959: 200)

From a strictly zoömusicological point of view, this consideration is quite remarkable, for it stresses non-utilitarian characteristics. Locke describes birds as "wasting their time" by recomposing their sound models, without any apparent evolutionary advantage being secured for themselves or their own species. These birds are consequently able to sing "just for the sake of singing," expending the same effort as they would if it were a matter of life or death. There follows a second reflection on the subject, subtly ironical towards Cartesianism:

For, though I should grant sound may mechanically cause a certain motion of the animal spirits in the brains of those birds, whilst the tune is actually playing; and that motion may be continued on to the muscles of the wings, and so the bird mechanically be driven away by certain noises, because this may tend to the bird's preservation; yet that can never be supposed a reason why it should cause mechanically, either whilst the tune is playing, much less after it has ceased such a motion of the organs in the bird's voice as should conform it to the notes of a foreign sound, which imitation can be of no use to the bird's preservation. But, which is more, it cannot with any appearance of reason be supposed (much less proved) that birds, without sense and memory, can approach their notes nearer and nearer by degrees to a tune played yesterday; which if they have no idea of in their memory, is now nowhere, nor can be a pattern for them to imitate, or which any repeated essays can bring them nearer to. Since there is no reason why the sound of a pipe should leave traces in their brains, which, not at first, but by their after-endeavors, should produce the like sounds; and why the sounds they make themselves, should not make traces which they should follow, as well as those of the pipe, is impossible to conceive. (Locke 1959: 200–201)

However, the mental faculties of nonhuman animals are inferior, in degrees, to those of human beings. Ideas are composed and compared, but not at such a complex level as humans accomplish. Animals do not count, and do not easily distinguish:

Brutes compound but little. In this also, I suppose, brutes come far short of man. For, though they take in, and retain together, several combinations of simple ideas, as possibly the shape, smell, and voice of his master make up the complex idea a dog has of him, or rather are so many distinct marks whereby he knows him; yet I do not think they do of themselves ever compound them and make complex ideas. And perhaps even where we think they have complex ideas, it is only one simple one that directs them in the knowledge of several things, which possibly they distinguish less by their sight than we imagine. For I have been credibly informed that a bitch will nurse, play with, and be fond of young foxes, as much as, and in place of her puppies, if you can but get them once to suck her so long that her milk may go through them. And those animals which have a numerous brood of young ones at once, appear not to have any knowledge of their number; for though they are mightily concerned for any of their young that are taken from them whilst they are in sight or hearing, yet if one or two of them be stolen from them in their absence, or without noise, they appear not to miss them, or to have any sense that their number is lessened. (Locke 1959: 205–206)

The greatest sign of human distinction is the ability of abstraction:

If it may be doubted whether beasts compound and enlarge their ideas that way to any degree; this, I think, I may be positive in that the power of abstracting is not at all in them; and that the having of general ideas is that which puts a perfect distinction betwixt man and brutes, and is an excellency which the faculties of brutes do by no means attain to. For it is evident we observe no footsteps in them of making use of general signs for universal ideas; from which we have reason to imagine that they have not the faculty of abstracting, or making general ideas, since they have no use of words, or any other general signs. (Locke 1959: 207–208)

Yet, Locke leaves no doubt that nonhuman animals "are not bare machines," and that "we cannot deny them to have some reason. It seems as evident to me, that they do some of them in certain instances reason, as that they have sense."

Finally, in another of his works, *Some thoughts concerning education*, Locke anticipates a topic that will be central in Kant's reflections upon other animals, namely our obligations as humans to respect them and treat them kindly:

One thing I have frequently observed in children, that when they have got possession of any poor creature, they are apt to use it ill; they often torment and treat very roughly young birds, butterflies, and such other poor animals which fall into their hands, and that with a seeming kind of pleasure. This, I think, should be watched in them; and if they incline to any such cruelty, they should be taught the contrary usage; for the custom of tormenting and killing of beasts will, by degrees, harden their minds even towards men; and they who delight in the suffering and destruction of inferior creatures, will not be apt to be very compassionate or benign to those of their own kind. Our practice takes notice of this, in the exclusion of butchers from juries of life and death. Children should from the beginning be bred up in an abhorrence of killing or tormenting any living creature, and be taught not to spoil or destroy anything, unless it be for the preservation or advantage of some other that is nobler. And truly, if the preservation of all mankind, as much as in him lies, were every one's persuasion, as indeed it is every one's duty, and the true principle to regulate our religion, politics, and morality by, the world would be much quieter and better natured than it is. But to return, to our present business; I cannot but commend both the kindness and prudence of a mother I knew, who was wont always to indulge her daughters, when any of them desired dogs, squirrels, birds, or any such things, as young girls use to be delighted with: but then, when they had them, they must be sure to keep them well, and look diligently after them, that they wanted nothing, or were not ill used; for, if they were negligent in their care of them, it was counted a great fault which often forfeited their possession; or at least they failed not to be rebuked for it whereby they were early taught diligence and good-nature. And, indeed, I think people should be accustomed from their cradles to be tender to all sensible creatures, and to spoil or waste nothing at all. (Locke 1989: 180)

1.8. *Hume*

Hume represents a radical break from the ''sick metaphysicians'' (this is what he calls them) of the seventeenth century, i.e. Spinoza, Hobbes, and — most of all — Descartes. His points of reference are rather Montaigne, Locke, Bacon, Bayle, and Newton. By consequence, his considerations of nonhuman animals follow more closely a proto-evolutionary approach. Similarly to Locke, Hume makes it clear that the differences between humans and other animals are simply a matter of degree. His attack to Cartesianism is pretty straight to the point: ''Next to the ridicule of denying an evident truth, is that of taking much pains to defend it; and no truth appears to me more evident, than that beasts are endowed with thought and reason as well as men. The arguments are in this case so obvious, that they never escape the most stupid and ignorant'' (Hume 1928: 176).

 Similarities between humans and other animals concern both the emotional and the intellectual area: all animals aim at seeking pleasure and avoiding pain, all animals care about their own life, all animals share the same principles at the basis of reasoning:

Here we must make a distinction betwixt those actions of animals, which are of a vulgar nature, and seem to be on a level with their common capacities, and those more extraordinary instances of sagacity, which they sometimes discover for their own preservation, and the propagation of their species. A dog, that avoids fire and precipices, that shuns strangers, and caresses his master, affords us an instance of the first kind. A bird, that chooses with such care and nicety the place and materials of her nest, and sits upon her eggs for a due time, and in suitable season, with all the precaution that a chymist is capable of in the most delicate projection, furnishes us with a lively instance of the second.

As to the former actions, I assert they proceed from a reasoning, that is not in itself different, nor founded on different principles, from that which appears in human nature. It is necessary in the first place, that there be some impression immediately present to their memory or senses, in order to be the foundation of their judgment. From the tone of voice the dog infers his masters anger, and foresees his own punishment. From a certain sensation affecting his smell, he judges his game not to be far distant from him.

Secondly, The inference he draws from the present impression is built on experience, and on his observation of the conjunction of objects in past instances. As you vary this experience, he varies his reasoning. Make a beating follow upon one sign or motion for some time, and afterwards upon another; and he will successively draw different conclusions, according to his most recent experience. (Hume 1928: 177–178)

It is exactly on the issue of reasoning that Hume most radically challenges the philosophical tradition. Reasoning, in Hume, departs from the senses, imagination, and experience: they allow the act of deducing and believing that future (whether immediate or not) will conform to given expectations. Hume argues against one of the very foundations of traditional philosophy:[6] mathematical thought is not the expression of reason, but simply a consequence of senses and imagination. In fact, it is expressly the search of the perfect science that makes humans imperfect beings.

Since reason alone can never produce any action, or give rise to volition, I infer, that the same faculty is as incapable of preventing volition, or of disputing the preference with any passion or emotion. This consequence is necessary. It is impossible reason could have the latter effect of preventing volition, but by giving an impulse in a contrary direction to our passion; and that impulse, had it operated alone, would have been able to produce volition. Nothing can oppose or retard the impulse of passion, but a contrary impulse; and if this contrary impulse

ever arises from reason, that latter faculty must have an original influence on the will, and must be able to cause, as well as hinder any act of volition. But if reason has no original influence, it is impossible it can withstand any principle, which has such an efficacy, or ever keep the mind in suspence a moment. Thus it appears, that the principle, which opposes our passion, cannot be the same with reason, and is only called so in an improper sense. We speak not strictly and philosophically when we talk of the combat of passion and of reason. Reason is, and ought only to be the slave of the passions, and can never pretend to any other office than to serve and obey them. As this opinion may appear somewhat extraordinary, it may not be improper to confirm it by some other considerations. (Hume 1928: 414–415)

Reasoning, in humans and other animals, is thus caused by passions, but Hume does not mean to be an irrationalist: his goal is simply that of establishing an adequate causal relation between emotions, experience, and feelings, on the one hand, and intellect, thought and act, on the other hand:

In order to decide this question, let us consider, that there is evidently the same relation of ideas, and derived from the same causes, in the minds of animals as in those of men. A dog, that has hid a bone, often forgets the place; but when brought to it, his thought passes easily to what he formerly concealed, by means of the contiguity, which produces a relation among his ideas. In like manner, when he has been heartily beat in any place, he will tremble on his approach to it, even though he discover no signs of any present danger. The effects of resemblance are not so remarkable; but as that relation makes a considerable ingredient in causation, of which all animals shew so evident a judgment, we may conclude that the three relations of resemblance, contiguity and causation operate in the same manner upon beasts as upon human creatures. (Hume 1928: 327)

Finally, although he excludes them from the idea of justice, Hume includes the other animals in the idea of morality and ethics, and in fact asserts very clearly that the exclusion from justice has nothing to do with taking care of them. Morality, as founded on feelings, is a primary virtue: justice is an artificial one. It is no coincidence that modern philosophical utilitarianism — inspired by Hume — includes many of the philosophers most concerned with the animal rights case (Peter Singer above all).

On the fact that other animals are moral beings, Hume seems to have no doubts:

It is evident, that sympathy, or the communication of passions, takes place among animals, no less than among men. Fear, anger, courage, and other affections are frequently communicated from one animal to another, without their knowledge of

that cause, which produced the original passion. Grief likewise is received by sympathy; and produces almost all the same consequences, and excites the same emotions as in our species. The howlings and lamentations of a dog produce a sensible concern in his fellows. And it is remarkable, that though almost all animals use in play the same member, and nearly the same action as in fighting; a lion, a tyger, a cat their paws; an ox his horns; a dog his teeth; a horse his heels: Yet they most carefully avoid harming their companion, even though they have nothing to fear from his resentment; which is an evident proof of the sense brutes have of each other's pain and pleasure. (Hume 1928: 398)

1.9.   *Kant*

Human beings, and human beings only, are the ultimate scope of creation. This is Kant's basic philosophical point of connection between humans and other animals. No being can actually claim to be the final aim of creation, but since humans are the final aim of Nature and are moral beings, therefore they can be considered the final aim of creation, as well. This moral character is founded on intellect and *ratio*, which — says Kant — are definitely superior in humans than in other animals.

[the rational idea] deals with the ends of humanity so far as capable of sensuous representation, and converts them into a principle for estimating his outward form, through which these ends are revealed in their phenomenal effect. The normal idea must draw from experience the constituents which it requires for the form of an animal of a particular kind. (Kant 2005: 52)

The same applies to aesthetics and aesthetic sense, which are issues that may concern exclusively a being that is at the same time animal and rational. Kant would definitely disagree with zoömusicological theory.

The agreeable, the beautiful, and the good thus denote three different relations of representations to the feeling of pleasure and displeasure, as a feeling in respect of which we distinguish different objects or modes of representation. Also, the corresponding expressions which indicate our satisfaction in them are different. The agreeable is what GRATIFIES a man; the beautiful what simply PLEASES him; the good what is ESTEEMED (approved), i.e., that on which he sets an objective worth. Agreeableness is a significant factor even with irrational animals; beauty has purport and significance only for human beings, i.e., for beings at once animal and rational (but not merely for them as rational-intelligent beings but only for them as at once animal and rational); whereas the good is good for every rational being in general a proposition which can only receive its complete justification and explanation in the sequel. Of all these three kinds of delight, that of taste in the beautiful may be said to be the one and only disinterested and free delight; for,

with it, no interest, whether of sense or reason, extorts approval. And so we may say that delight, in the three cases mentioned, is related to inclination, to favour, or to respect. For FAVOUR is the only free liking. An object of inclination, and one which a law of reason imposes upon our desire, leaves us no freedom to turn anything into an object of pleasure. All interest presupposes a want, or calls one forth; and, being a ground determining approval, deprives the judgement on the object of its freedom. (Kant 2005: 32)

The consequence of such statements, in ethical terms, is that human beings have no real obligation or duty towards other animals. What they have is a moral duty towards humanity, in order not to damage it in any form. This may include the exploitation of other animals as well. Kant is not opposed to it when it is useful to humankind, but he is rather clear on the fact that none of these exploitations should be excessive or unmotivated. The reason, we have heard it already from Plato, Thomas Aquinas, Locke, and most of all Porphyry, in a more passionate form: he who is cruel towards animals is more likely to be cruel towards other humans. However, the difference in the spirit animating Porphyry and Kant is enormous: ferocious attack versus wars, violence, Christianity and meat-eating in Porphyry's case; simple invitation to humane attitudes in Kant's case.

Kant's reflections are at any rate of great influence for the modern anthropocentric view. They add kindness and some ethical conscience to the Aristotelian and Cartesian frameworks. The nonhuman animal's life is clearly functional to that of the human being, and the intellective capacities of the former have nothing to do with those of the latter. Still, a certain respect and the avoidance of gratuitous and unnecessary exploitation are due.

2.   Conclusions

The goal of this article has been to discuss how philosophers who ended up being fundamental forerunners for the development of semiotic theories dealt with questions of *zoö*semiotic interest. Within this framework, and considering the findings here discussed, I conclude with a couple of remarks.

First of all, the evolution of the philosophical discourse on nonhuman animals turns out to be no evolution at all, i.e., it does not seem to follow a diachronic path where the earlier is the philosopher the more primitive are his ideas on animals. On the contrary, this path hardly inspires a sense of continuity and hardly displays, at least in half of the cases here consid-

ered, an awareness of the past and a will to proceed further. By this, I mean that each philosopher seems to be animated by his own reflections and perceptions only, rather than by a confrontation between these and the thinkers that preceded him. It is a generalization, of course, and, for instance, we learn that Hume does not suffer ''sick metaphysicians'' gladly, but still, if we compare these speculations with those — say — on the notion of Being, or the notion of God, we understand how much heavier the weight of the past is in these other cases.

Also, these philosophical reflections are always, or nearly always, ethically-minded. A philosopher who speculates over the problem of animal intelligence, communication or whatever, is first of all wondering about the legitimacy of behaving in a given manner over nonhuman beings; how right/wrong is to kill them, how good/evil is to eat them, etc. It seems to me a quite interesting point, in that it brings to attention the primary nature of any discourse on nonhuman animals, which is clearly of moral type. And this we can certainly detect from the widest range of contexts, from present everyday conversations up to the most ancient myths.

As a consequence, philosophers are never (even trying to be) neutral on the topic. Metaphysicians or empiricists, sick or healthy, they have and express opinions that show different yet high degrees of personal involvement. This aspect, although probably keeping the discussion always lively and intriguing, has — I feel — contributed to the general impression, which I hinted in the title of this article, that the issue was not dealt with as thoroughly as it deserved to be. If satisfying from an indeed strictly ethical point of view, the discussion ends up impoverished under an intrinsically philosophical perspective, and consequently fails to fully exploit its enormous semiotic potentials and values.

Notes

1. Apparently, I am not the only one to be impressed by Deely's ''Index Rerum et Personarum'' (2001: 837–1013). One reader's review on the Amazon web site goes like this: ''The Index at the end is astonishing, alone worth the price of the book.''
2. I refer to Aristotle, Thomas Aquinas, Descartes, Locke, and others. To have an idea of their importance, see their index entries.
3. Plato speaks here of plants, although he calls them ''animals'':

> For our creators well knew that women and other animals would some day be framed out of men, and they further knew that many animals would require the use of nails for many purposes; wherefore they fashioned in men at their first creation the rudiments of nails. For this purpose and for these reasons they caused skin, hair, and nails to grow at the extremities of the limbs. And now that all the

parts and members of the mortal animal had come together, since its life of necessity consisted of fire and breath, and it therefore wasted away by dissolution and depletion, the gods contrived the following remedy: They mingled a nature akin to that of man with other forms and perceptions, and thus created another kind of animal. These are the trees and plants and seeds which have been improved by cultivation and are now domesticated among us; anciently there were only the will kinds, which are older than the cultivated. (Plato 2004)

4. Some persons, desiring to find a solution to the baseness of the Jewish Scriptures rather than abandon them, have had recourse to explanations inconsistent and incongruous with the words written, which explanations, instead of supplying a defence of the foreigners, contain rather approval and praise of themselves. For they boast that the plain words of Moses are 'enigmas', and regard them as oracles full of hidden mysteries; and having bewildered the mental judgment by folly, they make their explanations. (Hoffmann 1994: 86)

5. As a matter of fact, a similar thesis is defended by modern anthropologists. Skeletons 30,000 years old were found to be exceptionally healthy, with physical traces that suggest that those people were vegetarian and would not work more than three hours per day (see Harris 1977).

6. Every rational creature, it is said, is obliged to regulate his actions by reason; and if any other motive or principle challenge the direction of his conduct, he ought to oppose it, till it be entirely subdued, or at least brought to a conformity with that superior principle. On this method of thinking the greatest part of moral philosophy, ancient and modern, seems to be founded; nor is there an ampler field, as well for metaphysical arguments, as popular declamations, than this supposed pre-eminence of reason above passion. The eternity, invariableness, and divine origin of the former have been displayed to the best advantage: The blindness, unconstancy, and deceitfulness of the latter have been as strongly insisted on. In order to show the fallacy of all this philosophy, I shall endeavour to prove first, that reason alone can never be a motive to any action of the will; and secondly, that it can never oppose passion in the direction of the will. (Hume 1928: 413)

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Cosmic semiosis: Contuiting the Divine

PAULA JEAN MILLER

Abstract

Bonaventure's thirteenth century symbolic theology anticipates the semiotic theories of Poinsot and Peirce, while their theories elucidate the expressio-impressio-expressio *dynamic integral to the* signum *in Bonaventure. The integrally triadic nature of all reality fundamental to semiotics accounts for what is self-evidently true in human experience. Peirce's* Semiotics *explains* What Is*; Bonaventure's* Metaphysics of Manifestation *reveals* Why it is how it Is*. "Every sign consists in the three-cornered* relation itself *connecting the sign at one and the same time to the mind and to the object signified": this co-inhering relation makes the* contuition *(the simultaneous co-recognition of sign-vehicle and Object Signified) of God possible in, through, and together with the particular sensible expression of the sign-vehicle. On the occasion of sense experience, an "innate idea" of God is discovered and elaborated by the human intellect as it participates in the Divine capacitating model of its own thought processes.*

Keywords: expressio-impressio-expressio; contuition; dynamic innatism; exemplarism; relation; triads.

> But every sign consists in the three-cornered relation itself connecting the sign at one and the same time to the mind and to the object signified.
>
> — Deely (2001: 219)

This tightly focused definition that we take here as epigram neatly summarizes the historical fruits of semiotics from its origins in Augustinian theory, through its explication in the *Tractatus de signis* (1632) of John Poinsot, O.P., to the postmodern development of the action of signs in

the work of Charles Peirce. As John Deely goes on to clarify the exact nature of this "three-cornered relation" (Deely 2001: 219), he states that relation, as a distinct category, must always be supra-subjective or inter-subjective, but never merely subjective, and that it comprises "all and only those features of being whose very essential conceivability involves being toward another, those features of being which cannot, even by an abstraction, omit reference toward" (Deely 2001: 228). Building on the work of Poinsot, Deely concludes (2001: 442) that the irreducible and unique feature of the sign is triadicity or "Thirdness": a sign must always involve three terms.

These crucial insights into the nature and universal function of sign provide a common ground with the work of yet another forerunner of the field of semiotics, who is not referred to in any significant way in Deely's otherwise inclusive study of the precursors of semiotics — Bonaventure of Bagnoregio (1217–1274). Bonaventure, like Poinsot and Peirce, explained the triadic nature of the cosmos as a "being toward something — relation," a sacrament of the God who is Triune (1250–52c: 23 = *In IV Sent.* d. 1, p. 1, a. un, q. 4).

1.   A neglected major figure in the history of semiotic inquiry[1]

A brief foray into Bonaventure's metaphysics of Emanation-Exemplarity-Consummation brings to light that the Seraphic Doctor is a hidden but profoundly important link between the "creative genius but also naïve innocence" of Augustine in his "casting forth onto the sea of ideas the notion of sign as superior to the division of being," (Deely 2001: 217) and the "nothing less than doctrinal beginnings of a revolution in philosophy in [Poinsot's] *Treatise on signs*" (Deely 2001: 468).

Bonaventure's *Opera* was recognized by Etienne Gilson (1965) as the culmination of the Augustinian tradition, both in its articulation of Augustine's categories of vestige, image, and similitude within the created universe, and in its symbolic theology. Bonaventure's early contribution (1273) to the development of signum, symbol, and sacrament[2] provides additional substance for Peirce's postulate that "the highest grade of reality is only reached by signs" (*CP* 8.327, 1904). Like St. Augustine, Bonaventure's theology is centered in love; therefore his semiotic metaphysics is also essentially a method of communion. All things are signs whose very beings communicate and lead back to their Signifier. As potentially knowable, all things are created to be mediums of communion. As we will see, Peirce's theosemiotics are also centered in love and signs exist for communication and communion.

Bonaventure builds upon Augustine's AD397 definition of sign[3] as the basis of human experiential knowledge. He regards the signum as the link that binds not only the whole of the created universe (macrocosm) with humanity (microcosm) and with God as Source (*Fontalis Plenitudo*), but also as the irreplaceable means of knowing all reality, including God. Knowledge of reality, for Bonaventure, means contemplation; and contemplation of sensible things leads to grasping the intelligible aspect of a thing which, in turn, points to something transcendent by virtue of the fact that there is a likeness between the sign vehicle and the object signified (i.e., the sensible aspect of the thing and the transcendent dimension of the thing that connects it to the object signified). *Sign is at the heart of Bonaventurean contemplation*, for it is the recognition that, since things cannot explain their own intelligibility and being, they must be signs of that which *can* explain them adequately. The sign is always in relation to the thing signified *and* to the sign-receiver, but the first aspect of the relation is more essential than the second, since the sign is *in act* and *essential* toward the signified, but may only be *in habitu* toward the receiver (Bonaventure 1250–52c).[4] Likewise, the degree of likeness between the sign and the signified may vary, but the likeness is always rooted in the nature of the sign, i.e., to be an *expression* of the signified, even as the sign always remains ontologically distinct from the signified.

2.   Semiotics as presupposed

The relation of the thing to the knower is called the *species or similitudo* by Bonaventure, and is that by which the knower and known are united intentionally according to a likeness that the soul abstracts from the thing (1250–52b: 415a [d. 17, a. 1, q. 2 ad 4]). This similitude is generated by the thing to bring it into the human soul; it makes perception of the thing possible, and so serves a relational function. While the *species* has a unity in regard to the thing known, it has a diversity in the minds of various knowers (Bonaventure 1250–52b: 447b, at *II Sent*. d. 18, a. 2, q. 1 ad 5). The *species* is formative and a structuring of the intellect; it is an accident inhering in the intellect; it is a sign representing the object. Yet, unlike Poinsot or Peirce, Bonaventure does not develop a theory of sign as such. Rather, he *presupposes* the radical interdependence of persons and "sign-vehicles" in acquiring the truth of the real ontological relations that constitute being-as-such. Bonaventure bluntly expresses this interdependence:

Whoever is not enlightened by such brilliance of things created must be blind; whoever is not awakened by their mighty voice must be deaf; whoever fails to praise God for all his works must be dumb; whoever fails to discover the first Principle through all these signs must be a fool. (Bonaventure 1259–60a: 299b, = *Itin.* c. 1, n. 15)

While semiotics — as so clearly presented by Deely (2001: 461) — sets forth the sign as "the key to a philosophy of experience" of "what is," Bonaventure seeks the answer to other questions regarding experience and sign: "*how* is a sign constituted?" and "*why*?" These two approaches to what is now called semiotics are referred to by Deely as two aspects of the extrinsic formal cause: objective specification, which determines cognition as an awareness of "this" rather than "that" object or aspect of an object; and exemplarity, which provides a pattern for fabrication.[5]

   It seems clear that these two aspects of extrinsic formal cause call forth one another: the pattern of fabrication of the cosmos as sign-vehicle is precisely "toward something — a relation" that can be actualized only through objective or specificative formal causality: see Figure 1. To explore the complementary inter-relationship of these two aspects of semiotics, I will examine the areas outlined by Deely and the *metaphysics of manifestation* developed by Bonaventure in their correlative dimensions, i.e., "what is" (cognition as awareness of this object), and "how/why it is" (pattern for fabrication). The theory of sign and the precise definitions developed throughout Deely's history of semiotics will be used in the presentation of Bonaventure's work to add clarity to his explication of the *signum*.

3.   The Summum Bonum: Being as communion

At the heart of Bonaventure's thought and theological system is the *Summum Bonum*, a Trinity of Persons who exists in a perfect relationship of Love. That Love has its Source in the *Primitas*, the *Fontalis Plenitudo*. As Eternal Father, this primordial and fecund *Fountain-Fullness* communicates himself so completely to Another that the second Person is a true, equal, and consubstantial Son and Image of this Life, and who as *Verbum* communicates this Being as *Exemplar* of the Good to everything created. The Perfect Bond or *Nexus* between these two Persons is a third Person, the Holy Spirit of Love — self-diffusive Goodness by essence and existence — who impresses the inner triadic nature of God into the heart of cosmic being.

IT IS = EXPERIENCE	HOW IT IS – WHY IT IS
Semiotics	Metaphysics of Manifestation
Sign = Triadic Relation	God is a Communion of Three Persons
	[Source/*Verbum* (Exemplar)/Bond]
	A cosmos of Triadic Relations manifests the
	Summum Bonum
Sign = Communication	Communication = diffusion of goodness
sending/receiving/intermediaries (signs)	*Expressio – Impressio – Expressio*
Universe of Signs	All Creation is a *Signum* of God
Ontological Relation	Ontological Relation
Mind dependent or mind independent	Mind dependent or mind independent
Natural and Conventional	Natural and Conventional
Genuine mediation is the character of a sign.	Axiom:
	There must be a medium between extremes
Extrinsic formality as species-specifically-	Extrinsic Formality as
human specifies cognition as awareness of this	Exemplarity/Expressionism:
object	*Verbum* expresses multiplicity of forms
	impressed with vestige/image/similitude
	Divine Ideas
	seminal reasons
Thing – Signified – Interpretant	Signified – Knower – Thing
Sign: bringing "other" into awareness	"toward something – a relation"
Experience-based	Experience-based
All experience is in signs	Human as *Imago Mundi*
	Knower becomes all things
Interpretant	Human person = Interpreter of symbols
Cognitive or non-cognitive	exists as a Symbol (body/spirit)
	Imago Dei:
	three consubstantial powers; one essence.
	Capax Dei:
	God is the Object of human powers
Action of signs gives structure to sensations,	*Contuition*:
perceptions and understandings	Indirect simultaneous knowing of thing
	and object signified
	Agent Intellect is both active and passive:
	1) abstracts 2) judges
	3) object received in *Intellectum*
	God = Light
	Verbum = Light enlightens every man
	Signum = participation in Divine Light
	Illumination = knowing in cooperation
	with Divine Light
	Reason = natural light
	Grace = light of similitude/deiformity

Figure 1. *The dual aspect of extrinsic formal causality*

Bonaventure's theology of the Trinity is one of dynamic Procession: the divine nature of God and the created nature of the cosmos is a continuously expanding and inter-linking communication, achieving a mutuality of life, a rhythm of giving and receiving — *expressio-impressio-expressio*. As the Father — the One innascible and fecund Source — has primacy within the Trinity, so the only-begotten Son as Image and Truth

receives the self-gift of Divine Fecundity and has primacy over all creation (St. Paul c. 61–63: *Col*. 1:12–20). The inner Bond of their Love permeates, invites, and embraces each and every thing as Beauty, made ''good'' as an expression of this Being-in-Love. Whatever exists bears the imprint of the Trinity.

Bonaventure defines goodness as communication: communicating to another the power to live, to know, and to communicate to others (1250–50b: 41b).[6] In the image of the divine Trinity, every communication consists of a giver, a receiver, and an act of communication. The *Image* of the Father, described as the *Verbum* of God, communicates this power to live, to know, and to communicate to each creature according to the capacity and powers of its own nature. In the *Hexaëmeron*, Bonaventure first describes the Son as Exemplar within the inner life of the Trinity:

For from all eternity the Father begets a Son similar to himself and a likeness similar to himself, and in so doing he expresses the sum total of his power; he expresses what he can do, and most of all, what he wills to do, and he expresses everything in him, that is, in the Son, or in that very Center, which so to speak is his Art. Hence the Center is the Truth. (Bonaventure 1273: 331b, = *Hexaëmeron*, Coll. 1, n. 13)

Christ, the Incarnate Word, brings to completion the created order, which, in its symbolic nature, is, as the Bonaventure scholar Zachary Hayes puts it, "the objectification of the self-knowledge of God" (1981: 14). Christ the Exemplar is the self-expression of God *ad intra* as the uncreated Word, and *ad extra* as the incarnate Word. This Word as Exemplar and Center, in Bonaventure's own words:

principally leads us to union with the Father who brings all things together. Such is the metaphysical Center that leads us back, and this is the sum total of our metaphysics concerned with emanation, exemplarity, and consummation, namely, to be illuminated through the spiritual rays and be led back to the Supreme. (Bonaventure 1273: 332a, = *Hexaëmeron*, Coll. 1, n. 17)

Exemplarity is the heart of Bonaventure's metaphysics. Through *emanation* all creation comes forth from the Source *impressed* with the self-communication of God as Good; through *exemplarity* an infinite multiplicity of forms is capable of *expressing* an aspect of the True Image as shadow, vestige, image, or similitude.[7] Efrem Bettoni states that, for Bonaventure: "Reality is not a scattered manifold but a structured multiplicity bound together by an organic and wise plan which is manifested through many signs. This purpose, however, is not immediately accessible

to man; it constitutes the object of his search'' (1964: 32). In the rhythm of *egressus/regressus* and the mediation of *signs*, all is destined for final *consummation* in full communion with Being Itself. Here Bonaventure builds on Aristotle's relationship of the whole to its parts.[8] While in *egressus* the One becomes the many and the whole is divided into parts; in *regressus* the many is reunited and gathered up into the One through the medium. Christ is that medium. As Son he is the center of the Trinity. As Verbum, he is the exemplar of all creation. As Image, he is the medium[9] of *expressio-impressio-expressio*.

Nothing in the cosmos exists in monadic isolation.[10] Each being exists ''toward another — a relation,'' so that the network of communicated life[11] is itself a participation in the *Summum Bonum*. Since all creation participates in the diffusion of the Good, the cosmos is, in Bougerol's summary, ''one immense sacrament of God'' (1964: 9). Bonaventure describes the world as a ''book which reflects, represents, and describes'' (1254–57a: 230, = *Breviloquium* Pars II c. 12) the creating Trinity. This, in essence, is Bonaventure's *metaphysics of manifestation* — an ontological relationship[12] that exists for communication; knowledge achieved through sign for a saving purpose: full and final communion with the *Summum Bonum*. Thus Bonaventure establishes the ''three-cornered *relation itself* connecting the sign at one and the same time to the mind and to the object signified'' described by Deely (2001: 219).

4. Sign and symbol in the way of return

The term ''symbol'' (*symballein*, *symbolun*) is not commonly used in texts from the Middle Ages. Rather *signum* is the generic term used, which includes what is today distinguished as ''sign'' (univocal reality) and ''symbol'' (a polyvalent reality). In medieval usage, a sign was determined to be either natural or conventional. The *natural sign*, in which there existed a resemblance between the sign and the signified reality, was further subdivided according to which of the four causes produced the relation. A type of sign often referred to by Thomas is an *effect* (efficient causality) that *points* to a cause (e.g., smoke for fire). Bonaventure (1250–52b: 397b) prefers those signs that *actually represent* (formal causality) the signified reality through natural likeness[13] — as an image of the exemplar reality (what Peirce would call an ''icon,'' or Poinsot an ''*idolum*,'' 1985 [1632]: 241, note 3). Other natural signs could be based on material and final causality. *Conventional* or *arbitrary signs*, on the other hand, are determined by social agreement — for example, road signs or letters of the alphabet.

5.   The perfusion of signs in Medieval Latin culture

For the medieval theologian, and particularly for Bonaventure, every-
thing in creation was a natural sign of a transcendent reality, which in
turn opened the knower to more complex levels of interpretation of the
universe.[14] The world in and of itself was intelligible, and human persons
acquired ideas from it. Such a presupposition is problematic to the mod-
ern consciousness for which the real world, the world "in itself," is not in-
telligible.[15] Because a natural signification by the world does not mesh
with atheism, signification is limited to social construction, to human pro-
cess and activity.

But for Bonaventure, whose starting point was the analogy of faith, the
"book of the creature" and the book of sacred scripture provided the hu-
man being with everything needed to "retrace" the truth of being to its
first and ultimate Principle. When human sin distorted the communica-
tion between God and humanity, between human beings, and between
humans and the created world (*Gen*. 3:15), the natural human capacity
to "read" the book of the universe as the expression of God was seriously
diminished. But the God who is Love re-established communication
through the revealed Word as the Restorative Principle, illuminating hu-
man intellects to once more perceive the symbolic nature of the cosmos.

6.   The metaphysics of manifestation

In his treatment of the emanation of the Divine Persons in the *Brevilo-
quium*, Bonaventure states that faith requires that we have the loftiest
concept of God, and that this is proved not only by scripture but also by
the whole of creation: "The first Principle opens himself to our mind
through the scriptures and through creatures. In the book of creatures he
manifests himself as the effective Principle, and in the book of scriptures
as the redemptive Principle" (1254–57a: 222a–b).22 Here (1254–57a:
211a–b, = *Breviloquium*, Pars I, c. 2.) Bonaventure cites *De Trinitate*,
where Augustine also declares the natural universe as witness to the exis-
tence of a transcendent Creator who gave us enough intelligence to judge
the extent to which each created reality manifests God.

Later, in his "necessary reason" for the unity of the divine nature to be
expressed in a plurality of manifestations, Bonaventure develops his
metaphysics of manifestation. While the Principle is invisible, immutable,
and uncontainable, "he reveals himself, makes himself known," through
what is "mutable, sentient and contained." Symbols explicitly signifying
divine realities do so "by reason of the union between the thing signified

and the sign specifically destined, both in manner and origin, to express it." Things are relational to the core of their beings; the embodiments of Divine Ideas. These symbols are offered to the senses for the sake of signifying something that is truly present.

As the work of a creating Trinity (Bonaventure 1254–57a: 219a–b, = *Breviloquium* Pars II, c. 1), every creature, whether material, spiritual or a composite bears the trace of a triple causality (efficient, exemplary, and final), and therefore is one, true, and good. But while these attributes are manifested to some degree (*umbra, vestigium, imago, similitudo*) in everything that God brings forth, according to Bonaventure, "he necessarily manifested them most of all in that creature last in the making but first in rank. For God made man last, that in him might clearly appear and shine forth the consummation of the divine works" (1254–57a: 228). This creature God composed in the nature of a symbol, with both inner and outer reality: with a two-fold perception, of mind and of flesh; with a two-fold capacity for motion, of will and of body; with a two-fold good, one visible and the other invisible (1254–57a: 229a, = *Breviloquium* Pars II c. 11). So composed, humanity was "designed to ascend gradually to the supreme Principle who is God" (1254–57a: 230a) by reflecting upon the universe that represents and describes its Maker.

For the soul is something great: the whole universe may be described in it. The soul is called as *lovely as Jerusalem*, for it is likened to Jerusalem through the disposition of the hierarchical levels. For they are disposed in the soul in a threefold manner: in relation to ascent, to descent, and to the return to God ... Therefore we should attribute [the three levels] to diligence combined with nature, diligence combined with grace, and grace superior to both nature and diligence. (Bonaventure 1273: *Hexaëmeron*, Coll. 22, n. 24–42, in the 1970 DeVinck trans.)

The first level of *ascent*, which also consists of three levels, is diligence combined with nature. The first level of diligence begins with perceiving what one of the senses announces, but also making a distinction between those data that are to be rejected and those to be chosen. Thus, the second level is deliberating upon whether the thing is permitted and fitting; and the third, executing that which is fitting. The second level of diligence combined with grace has three acts: ordination of the act to God; strengthening by Virtues; and finally the command. The third level of diligence is that of grace above nature and diligence, in which the soul is lifted higher than itself, empties itself out, and receives divine illuminations.

The order of *descent* involves three powers of the soul: receiving, preserving, and distributing. For the soul to receive these illuminations it

needs lively desire, perspicacious scrutiny, and calm judgment before it is able to command what God wills to be done, execute it in virtue, and triumph over all obstacles. Finally, the soul must distribute life to neighbors through a threefold relationship: clarity of example, truth of expression, and humility of service.

7.   The threefold level of contemplation

The return of the soul to God corresponds to the threefold level of contemplation — of that which is outside us, inside us, or above us, by means of the three powers: the exterior, interior, and the superior; that is, the apprehensive, affective, and operative. Apprehension involves discerning investigation as the senses perceive exterior things; then the common sense; after that, the imagination and reason consider the truth of what has been discerned, and place it in memory. Discerning selection involves choosing that which is good, judging, and finally executing.

   The interior powers require disciplined chastising of the roots of the passions, disciplined strengthening against concupiscence and weakness, and a disciplined calling into action of the virtues. Then, Bonaventure says, the soul is its own master, and after it does what it can, grace lifts it up easily to God; God works within it and the soul is rapt in God the beloved. "And so the soul is *a woman clothed with the sun, and the moon . . . under her feet, and upon her head a crown of twelve stars, for it is full of lights and never turns its eyes away from light*" (Bonaventure 1273: *Hexaemëron* Coll. 22, nos. 39–40). These twelve stars symbolize for Bonaventure the human incapacity to remain on any one object while a pilgrim in this life; hence, the soul has twelve matters of consideration with which it concerns itself, consistently moving around the circle and never outside of it.

8.   The need of redemption

Bonaventure next considers sin as a defect in this established order of symbolic being and relationship. As Hayes (1981: 15) puts it, mankind's capacity to interpret creation "as a vast symbol of the divine reality" and to "unlock the meaning of the universe" is reduced to ignorance, while its power to "ascend gradually to the supreme Principle" by the rungs of the ladder of creation, degenerates into concupiscence and domination. To effect the restoration of the established order God sent the incarnate Word, who instituted the sacramental economy as an extension of his teaching and healing presence.

Since sensible objects had been the occasion of the fall of the soul, they must also be the occasion of its rising.[16] Sacramental signs have three dimensions of efficacy: "through natural similitude they represent; through conjoined institution they signify; through superadded benediction they sanctify and prepare for grace by which the soul is healed and cured" (Bonaventure 1254–57a: 265b, = *Breviloquium*, Pars VI, c. 1). The sacraments as signs are always there to dispel man's "intellectual blindness" and to invite to the union signified, but healing *grace as relational* demands the consent of the receiver.

Bonaventure's emphasis regarding sacramental grace falls upon *ex opere operantis*. Grace is the marriage between God and humanity, the conjoining and communion in Divine Life. The Relation Signified requires mutual consent.

The *vestigia* of God are bound to the cosmos, and their revelation of God elicits from man a conscious response to the Transcendent. Valentin Breton observes that while the hidden meaning that the sign points to is more important for Bonaventure than the visible object itself, still, the sign keeps, and does not annihilate, the value and significance that the object has in the profane world while it simultaneously points to the transcendent value. The thing in its natural order signifies the transcendent value. God gives himself through the sign to be known and attained; this occurs through a mutuality of penetration which opens unknown depths of both matter and spirit.[17] The *impressio* of the self-communication of God transforms the sign-vehicle into symbol, a reality no longer "two-dimensional" but polyvalent as it participates (*expressio-impressio-expressio*) in the network of communication-ontological relation.

9.   The footprints of God

The search for meaning in and through the world is accomplished by Bonaventure through exemplarism and reduction. As these "footprints" of God are experienced in the universe, mankind retraces them, searching for the principle of unification that underlies the multiplicity. Meaning subsists in the relation between the individual *signum* and the whole to which it belongs.

Paul Ricoeur (1974: 59–60) echoes this insight when he states that the symbolic actually exists "between the symbols" as an "economy of relation." Because each is a partial manifestation of one ultimate reality, "symbols symbolize only within wholes which limit and link their significations." Hinwood (1973: 482), following Bonaventure himself (1250–52b: 397b of *II Sent*. d.16, a.1, q.2, fund; and 1273: 358b of *Hexaëmeron*

Coll. 5, n. 28), shows that fundamental to this understanding is the idea that things are not "accidentally or by addition, but by their very nature, reflections and signs of the Creator." However (Bonaventure 1254b: 49a–b, in *De mysterio Ss. Trinitatis* I.1 concl.), because their symbolic meaning is integral to their very beings, things are also insufficient and unintelligible in themselves, if relegated only to scientific knowledge of their natures.

While created realities in and through their very natures are vestiges of God, without the "look" of the human knower they cannot *function* on the symbolic level. A sign needs to be "read" and reflected upon in order to be realized;[18] in the particular case, it is only the human person who can relate the creature to its Exemplar idea and discover its meaning. Bernard Landry (1922: 169) perceives a complement dynamic within the works of Bonaventure that makes such symbolic interpretation possible. There is a universal law of analogy in the constitution of essences that allows one inferior stage of creation to symbolize a higher level; at the same time man is able to find God in the world because analogy is the law of human nature, just as it is the law of nature around us. While there is no symbolization without the human person, Bonaventure is not constructing or super-imposing a symbolic meaning upon a one-dimensional reality, but rather perceiving the profound depth of a sacramental world.

Bonaventure states that, after its institution, the sign "has no more absolute qualities than it had before; but it is ordained to something to which it was not before. And because it has the effective ordination, it is said to have power ... and nevertheless it has no more goodness in it now than before. If, then, you ask what power is in [it], they say nothing absolute, but towards something, i.e., a relation" (1250–52c: 23, = *IV Sent.* d. 1, p. 1, a.un, q. 4).

The sign as sign must remain itself. Bonaventure could not understand how or when an absolute physical quality could be added to the sacrament, whether to its words or its element, which would yet remain distinct from the uncreated power or divine action that accompanies every action. While Thomas Aquinas emphasized the contribution of the very physical qualities of the matter as instrumental cause of grace, Bonaventure emphasized that nothing physical is added to the material sign; rather the sign in its own concrete being is ordained to a new relation.

10.   Following in the *footprints*

If the physical world (Augustine's *vestigium*) symbolizes the Trinitarian God, then there must be a creature by nature capable of "reading" and

interpreting the symbol in order that both book and reader can be fulfilled in purpose. The "return" of the cosmos to its Creator requires a medium or a mediator, someone that participates in the natures of both of the extremes (matter and spirit) to be reconciled.

Bonaventure builds upon the axiom of Pseudo-Dionysius: *a medium must always exist between two extremes*, in order to make any relationship possible, but especially for the salvific relationship, i.e., the divinization of created being. Bonaventure, in defining man-as-image, expresses its constitutive dimensions in proportionality and order (1273: 378a, = *Hexaëmeron* Coll. 10 n. 7): *imago est essentialis dependentia et relatio*.

Merino elaborates on this definition, explaining being-in-itself as really a being-for-others, a being-toward — a relationship: "In a concentric, gradually expansive and communicative process, man lives and is realized in dialectical tension" (1974: 456). The innermost circle of this dialectical tension of relationship is his own substantial composition: the human being is a union of matter and spirit. As an incarnated spirit the being and ordination of the human person is essentially relational. God — in his infinite goodness, power, and wisdom — establishes a cosmos of relationships, with humanity (*imago Dei* and *imago mundi*) as the medium, ordained to be mediator, between the corporeal and spiritual worlds.

11.   Revelation of the infinite

What shines forth in all created things is the power, wisdom, and goodness of the Creator.[19] Bonaventure posits that the revelation of infinite power requires the conjunction of the furthest extremes. So the human person, as "the intrinsic union of two things having a mutual inclination to constitute a third" (O'Leary 1931: 99), manifests the conjunction of diametrically opposed extremes — matter and spirit — into singularity, a conjunction that signifies, according to Bonaventure (1250b: 41b), the *infinite power* of God.[20] To eliminate one of the extremes (as did the Manicheans) is to limit the power of God as well as to destroy the principle of perfect order, i.e., extremes with a medium[21] — the triadic order that manifests the wisdom of God:

For the wisdom of the builder is manifested in perfect order, but every order of necessity has a depth, a height and a medium. If the lowest element is pure matter, and the highest is the spiritual nature, the medium must be a composite of both; unless God had made all these things his perfect wisdom would not be shown. (Bonaventure 1250–52b: 41b, = *II Sent.*, d.1, a.1, q.2, fund. 2).

The human person stands in the middle, not only as *imago Dei*, but also as *imago mundi*. It is this creative tension and communication between matter and spirit in the human person that Bonaventure perceives as the divine imprint. This theological rendering of the mystery of mediation corresponds to Peirce's philosophical explication of the sign function in achieving relation:

Genuine mediation is the character of a Sign. A Sign is anything which is related to a second thing, its Object, in respect to a Quality, in such a way as to bring a Third thing, its Interpretant, into relation to the same Object, and that in such a way as to bring a Fourth into relation to that Object in the same form, *ad infinitum*. If the series is broken off, the Sign, in so far, falls short of the perfect significant character. ("Minute logic," *CP* 2.92, c. 1902)

Deely provides the correlation between Peirce's semiotic theory and the multidimensional *signum* of Bonaventure:

For what signs do specifically is to mediate between the physical and the objective, where the object represents itself in knowledge (both as partially including and as transcending the physical environment) and the sign always represents an object other than itself. The sign depends upon the object in that the object provides the measure or content whereby and according to which the sign signifies. But the object in representing itself also depends upon the sign for being presented (the object determines *what* is presented, the sign *whether* it is presented), and the sign is, in its own being, indifferent to whether the object has also a physical existence. (Deely 2001: 585)

In Bonaventure's language, the Object is God, while both humanity and all creation act as signs of God to and for one another. In Deely's fine elucidation of this theory, humans and things both function as "sign-vehicles," while the sign itself is the relationship that exists between God, humans and all created things in a mutuality of communication.[22] Because of the human higher consciousness, i.e., their "species-specifically human"[23] capacity, they — as Bonaventure describes — act as a "conscious interpretant"[24] within this multi-sign relation. Then the human person as sign has the mission of mediating the return of the cosmos to God: "It is precisely because man is mediator between the world and God that he is also the interpreter of creation . . . that he is able to know it and understand it, to know it in its most profound sense" (Solignac 1974: 92).

12. The ladder of creation

But so also does the *ladder of creation* mediate human salvation: "The first Principle created this perceptible world as a means to self-revelation so that, like a mirror of God or a divine footprint, it might lead man to love and praise his Creator" (Bonaventure 1254–57a: 229a, = *Breviloquium*, Pars II, c. 11). For Bonaventure, it is inadequate to know *only* the nature of a thing (i.e., scientific knowledge) or to perceive *only* the symbolic nature of the concrete being (i.e., as revealed through scripture) and interpret it as a sign[25] or trace of the Creator. Unless a person knows the nature of the concrete created realities, those realities will never be understood as "divine footprints," as *signs* embodying the diffusion of Divine Goodness. Conversely, unless someone knows each created reality as a symbol of the Creator, he will never understand the *full* meaning of its created nature. Because the human person is both body and soul, he or she is gifted with both exterior and interior senses, and is able to read the books written both without (i.e., creation) and within (i.e., Wisdom, the Divine Plan).

13. The significance of light: "Dynamic innatism"[26]

In the *Hexaëmeron*, Bonaventure alludes briefly to the second moment of mankind's development as image of God, as that is presented by Augustine in *De Genesi ad litteram* and *De Trinitate*. The dynamic movement from *creatio* to *formatio*, from *capax Dei* to *particeps Dei*, from *imago* to *similitudo*, is the movement from absolute receptivity to the work of God alone — to what Solignac calls a "synergy of relationship, which is at least partially the work of humanity" (1974: 81). As *image* of God, the human being is *capax Dei*: capable, by virtue of an integrally symbolic nature as a body/spirit composite, of consciously *mediating* the communication ontologically present within the physical world. Bonaventure understands this in the Augustinian sense: human persons are capable from the moment of creation of receiving and carrying within themselves the spiritual light which is God.

   Bettoni sheds light on the unique approach Bonaventure takes to the "innate" idea of God that is impressed upon the human mind and is grasped within the vital activity of human thinking itself. It is not an idea formed *by* the mind of any person; it does not depend upon the person's thought, but is superior to it. "The term *innate* for Bonaventure means only this: that there is given an idea which is not derived by abstraction from sensible things, but is formed by an elaboration or devel-

opment which is completely interior to the soul, although only in contact with and on the occasion of experience'' (Bettoni 1964: 102). It is a *dynamic innatism*. The reality is not inferred from a human idea, but the reverse: a reality is *discovered* that underlies and is manifested through an idea in which the reality acts. The idea bears witness to a real presence that is the source of my power to think! Thus:

The ''similitudo'' or idea of God which is impressed in us and raises our souls to the dignity of his image tends to repeat in our intellect the same order of knowing which is proper to the divine intellect and constitutes the model and the necessary rule of all knowing. God in knowing his essence knows all things in it. We, naturally incapable of an intuition of God and hence of knowing all things in him, must turn to experience and reasoning in order to acquire our cognition of things; but every movement of our intellect will be made in virtue of that innate idea of God which is the light and rule of all knowing. The essence of our knowledge, which is precisely that of being a living analogy of divine knowledge as all things are vibrant analogies of God's being, is constituted by this ''species Dei'' impressed in our soul. It is this that renders our thinking possible and is actually the beginning of it in imitation of the divine thought. (Bettoni 1964: 99)

With the idea of a Supreme Being come concepts of unity, goodness, and truth; and with those come also theoretical and first principles — elements that enable the mind to elaborate an idea of God, but elements the mind is not even conscious of. These enable the mind to grasp implicitly the laws or formal schemas of rationality as we come in contact with experience.[27]

Just as God conserves human persons in being, so the divine light enables them to participate in knowing. God enters into the soul intimately and directly as the *ratio intelligendi* and is immediately united to the soul. Illumination does not enable the soul to see God in his essence, but it does allow the person to know God through a certain interior effect, i.e., through divine aid, while still not seeing or hearing him in the proper sense.[28] Since the idea of God is confused and inadequate, the only way human beings can arrive at a proper knowledge of things is that these very things come into contact with us and add the light or truth which they carry in themselves to the light which our intellect derives from the idea born of God. Experience is therefore a true and proper source of our knowledge of *sensible* things, Bettoni notes (1964: 100–101), even though it is only the *occasion by which* the mind passes from an implicit to an explicit knowledge of God and other first principles that invest and unify our knowledge gradually acquired through experience, giving to that knowledge the characteristics of necessity, immutability, and absoluteness which are proper to truth. Bettoni's interpretation here is confirmed by

Bonaventure himself: "But if you ask, 'What need was there for Him to have wisdom besides the divine?' I will answer: in order that He might have experience" (1273: *Hexaëmeron*, Coll. 3, n. 15, in the DeVinck 1970 trans.).

While human persons cannot embrace God totally or comprehend him fully but only *in part* (*particeps*), still they bear within the memory the Divine as the "light" of reason, which is the source of the whole intellectual life. It is because the soul is "capable of God" that humanity is in God's image; the soul images the Trinity insofar as it represents the *intrinsic* processions of knowledge and love. While creation establishes an absolute distance between God and man, similitude provides for communion between Creator and creature. It is in the moment when a human person knows and loves God as the object of his faculties that the soul becomes an actual image and a participator in the Divine Nature. The soul is an image of God only in the measure in which it knows itself and wills itself as such; otherwise, it sinks to the obscurity of vestige.

14. Contuition

In mankind's original conformation to God as *similitude*, the human person was able to "read" the symbol of creation at the level of wisdom — seeing its meaning within the whole Plan. After the fall, reduced to its natural capacity as image, mankind was able to read creation only at the level of knowledge, missing the meaning of the nature of things that exist as vestige, image, and similitude of the Creator. Understanding the meaning of creation requires what Bonaventure coins as the *contuition*[29] of its Exemplar. Speaking of the objects of our experience, Bonaventure says:

They are the vestiges, images, and displays presented to us for the contuition of God. These creatures are exemplars, or rather illustrations offered to souls as yet untrained and immersed in the sense, so that through these sensible things that they see they may be transported to the intelligible which they do not see, as through signs to that which is signified. (Bonaventure 1259–1260: 302b, = *Itinerarium* 2.11)

For the medieval theologian, particularly for Bonaventure, everything in creation was a natural sign of a transcendent reality that opened the knower to more complex levels of interpretation of the universe. The world in and of itself was intelligible by its approximation to an ideal *model*, and human persons acquired ideas from their experience of this world. Christ, the Medium and Exemplar Cause of all creation, *expressed*

himself, and all things came to be *impressed* or marked by the presence of the God of Life and Light.

While Bonaventure agreed that knowledge of the world comes *from below*, as in Aristotelian science, God as the transcendent Signified is grasped *from above*. Because humanity stands in the "middle" of creation, it knows the world first through the *ratio inferior* which depends upon the senses; it knows reality that is not sensible (i.e., God, the soul, the virtues) through the *ratio superior*, as Augustine (i. 399–422) called it. Each thing is made intelligible by expressing the light (i.e., the knowability of its substance) to another whose senses are created in such manner as to receive the impression of that light, and to transfer the image from exterior sense to interior sense to the very light of reason itself, the *interpretant* of the *sign*.

Bonaventure's understanding of sensation differs from that of Augustine and Thomas because his insight into the relation of the faculties to the soul is different. For Bonaventure a real distinction does not exist between the faculties and the soul. Rather the faculties are *consubstantiales* with the soul; the distinction between the soul and its faculties is similar to the relation between the divine essence and its attributes. While sensation is a passive modification of the composite, it is inseparable from the judgment of this thing as beautiful, useful, delightful. Sensation begins in the senses but ends in the soul; rationality and sensation interpenetrate, making human sensation essentially different from that of other animals.

15.   The status of contuition

Within the spectrum of human knowledge there is, first of all, rational *demonstration* from effect to cause; and finally there is *intuition*, the direct and immediate knowledge of God in beatitude; but *contuition* is *the intermediary form of knowing* that embraces *both* intellectual abstraction of the sensible *and* illumination of human reason through the impression of first principles that correspond to the Divine archetypes. Hence, in human knowing, contuition holds that *center place* that is always the focus of Bonaventure's thought.

In Bonaventure's thought the *ratio creata* (the human concept formed by abstraction) and the *ratio aeterna* (the Divine Idea) always remain two distinct orders.[30] The difference between knowledge in this life and the knowledge of the beatific vision always remains.[31] Illumination enables the mind to apprehend the *ratio aeterna* only *cum ratione creata, et ut ex parte a nobis contuita secundum statum vitae*. Created reasons (the created object as formal cause, the interdependent agent [abstracting, but second-

ary] and possible [receptive, but active] intellect as efficient cause) are proper and distinct principles of knowledge, and without them the light of the eternal reason is insufficient of itself to produce knowledge as long as the soul is in this wayfaring state (Bonaventure 1254a: 23, = *De sci. Chr.* q.4c).

The Divine Idea is not attained through a causal argument that postulates it as the exemplar of the creature known through an abstract concept. Rather the Divine Idea is a light present within and reflected by the object known, either through an abstract concept or through the mind's immediate awareness of itself. Illumination of the mind by the eternal reason, Bonaventure says (1254a: 24), is operative only in and through the created reason. The human intellect elaborates its own concepts, which are as distinct from the divine ideas as the creature is distinct from the Creator. Through contuition the human person is able to have an *immediate*, though not perfectly objectifiable, awareness of the divine presence in the experience of the finite.

Whereas Thomas procures knowledge of God through *a posteriori* arguments (see Deely 2001: ch. 7; Deely 2004a), Bonaventure attains it through contuition: a conscious awareness of the presence of God, possible because of a simultaneity of form in creation and in the Eternal Exemplar. Since the intrinsic form of the creature is an extrinsic expression of the Divine Exemplar, the very being of the creature is, simultaneously, a *sign* of Another and yet ontologically distinct from the Signifier. Bonaventure states that all created things "manifestly proclaim that in them as in mirrors can be seen the eternal generation of the Word, the Image, and the Son, eternally emanating from God the Father" (Bonaventure 1259–60a: 301b, = *Itinerarium* 2.7).

This *likeness* (*similitudo*) between God and creature, according to Bonaventure (1250–52a: 43), is neither univocal nor equivocal but can only be analogical, meaning that there is a likeness of proportion without a unity of nature.

16. Contuition and intuition

Houser distinguishes intuition from contuition by stating that

Intuition is immediate and direct knowledge of an object, generally a universal essence; *contuition*, a Bonaventurean term of art, signifies knowing something else in the course of knowing the first object. In this way, knowing the essence of a creature is the occasion for understanding something about God. But it is not merely

an occasion. Rather, contuition of God is a *necessary condition* for intuition of *any* created essence. (Houser 1999: 103)

Jay Hammond sees these two terms in a different relationship. He defines contuition as a

concomitant insight into the relationship of everything to God who is the *primum*. For Bonaventure, all knowledge is concomitant because it is the concurrent recognition of both the created and the uncreated. Contuition as contemplation of God present within each of his creatures opens to *intuition*, the direct knowing of God, face to face, in heaven. In effect, *contuitio* is an intuitive grasp of the divine order permeating all reality. (Hammond 2001: 209)

In contemplation the person is not distracted by the multiplicity of analogical traces of God; rather, the last (the *ultimum*) becomes like the First (the *Primum*) closing the intelligible circle.

Timothy Johnson explains the concept of contuition in Bonaventure's thought as

The greatest knowledge of God, albeit indirect, which the intellect can acquire. In the systematic consideration of divine truth, the gift of understanding purifies the heart, thereby preparing the intellect for the contuition of God. As the intellect considers the vestiges of material creatures and the images and similitudes of rational creatures, it ascends to the knowledge of the Trinity. When the intellect arrives at this point in contemplation, it can go no further; instead, it is called to rest from all speculative labor and entrust itself to God. A deeper knowledge of the divine is possible only through the gift of charity by which the soul is united with the Trinity. (Johnson 1999: 169)

Contuition is the bridge that links human intellection and divine illumination and is the continuity between them.

D. Connell says:

contuitus expresses the outcome of that subtle relation between illumination and the operations of the mind in virtue of which it grasps with certitude what is presented to it either in its abstract concepts or in its immediate experience of itself, not simply, however, in its own mutable light, but in the light of the eternal reasons, which shine through the objects of its knowledge in consequence of the illuminative presence of God. (Connell 1974: 304)

And Connell later continues:

St. Bonaventure's God is always at the same time both manifest and hidden; manifest because he is the light apart from which nothing would appear to the understanding, hidden because what the light manifests directly is not the light itself but that in which the light is reflected. Every understanding of being is bathed in the light of being itself which is brought into focus for the mind when it forms, not

simply its abstract concept of being but its assent to the reality of being as *He Who Is*, utterly separated from all that in any way is not, reflected for it in the mirror of the divine name. (Connell 1974: 308)

Poinsot describes something akin to this spiritual *contuition* of God in and through the sensible sign-vehicle through the example of the relation between proper and common sensibles within natural experience:

Wherefore, we respond simply that sense cognizes the significate in a sign in the way in which that significate is present in the sign, but not only in the way in which it is the same as the sign. For example, when a proper sensible such as a color is seen together with a common sensible, such as a profile and movement, the profile is not seen as the same as the color, but as conjoined to the color, and rendered visible through that color, nor is the color seen separately and the profile separately; so when a sign is seen and a significate is rendered present in it, the significate is attained there as conjoined to the sign and contained in it, not as existing separately and as absent. (Poinsot 1985 [1632]: Book I, Question 6, 308/34–47; cf. Deely 2001: 533)

17. Divine ideas, seminal reasons, and light

It is significant that, in the creation sequence of *Genesis* 1, what is made on the first day is light, that created participation in God who is Light, and hence the symbol of the presence of God within everything that is to follow. In *Genesis* 1, God creates through the Word, the *Verbum*: "God said, and so it was. And God saw that it was good." The *Verbum* is also referred to in Scripture as the *Logos*, the Reason or Mind of God, and "All things came to be through him, and without him nothing came to be. What came to be through him was life, and this life was the light of the human race; the light shines in the darkness, and the darkness has not overcome it" (*John* 1:2–5).

It is this *Verbum*, this *Logos*, who is the Exemplar Cause of all creation that is at the center of the *metaphysics of manifestation* of St. Bonaventure. The psalmist prays: "let the light of your face shine on us, O Lord." And John testifies that Christ is the "true light that enlightens everyone who has come into the world." (*John* 1:9) Light, the substance of all being, is the necessary condition for distinctions and knowledge, as well as the principle of moral goodness.

According to Bonaventure the first form of all bodily beings is light, and the hierarchy of bodily beings is determined by the degree to which each is informed by light.[32] The empyrean sphere of the medieval cosmos is the realm of pure light, but Bonaventure believes (c. 1250–52a: 321,

= *II Sent*. d.13, a.2, q.2) that all bodies naturally participate in the light. Since light is the most general and substantial form, and acts as the intermediary between matter and form, it is the actualization of an additional form or forms that characterize and make each individual being unique. Through the collaboration of matter as the principle of passivity, and light as the principle of energy and activity, all future forms of bodies come into being and develop. Through the influence of light, matter is prepared to receive other possible and progressively more complex forms present within matter itself.

Zachary Hayes states that, according to Bonaventure

material reality is not inert and passive but is full of active powers [seminal reasons] virtually present from the beginning and educed into an actual diversity of beings in the course of history through the agency of specific creatures. All forms, with the exception of the human soul, are co-created with matter and have resided in matter since the creation of the world. (Hayes 2002: 227)

These seminal reasons within all things created are reflections of and correspond with the Divine Ideas in the Mind of the Creator.[33] These Divine Ideas are, in fact, the self-knowledge of God, the Uncreated Word, who expressed the Divine Being into the "other" of creation (i.e., Matter). God knows these "others" through representative likenesses which are, in fact, ontologically identical to God himself, since what God knows he knows in himself.[34] Hence, in God the Divine Idea is one; while in creation the Divine Ideas (likenesses) are multiple, since this reflects God's knowledge of these likenesses. God knows each thing by these ideas in the Divine Mind; these ideas are the eternal forms of things and are, in fact, God himself (Bonaventure 1250–52b: 11 and 17b, = *II Sent*. d.1, p.1, a.1, q.1 ad 3 and 4). God is, then, "like" the creature, even as the creature is "like" God. Bonaventure then distinguishes between these two forms of likeness by specifying that the way God is like the creature is similitudo exemplativa, while the way the creature is like God is *similitudo imitativa* (see 1254a: 9a, *De sci. Christi* q.2 concl.).

These correspond with Bonaventure's two ways of knowing: one that causes things to be; the other that is caused by things, i.e., that is the way of the creature.[35] God's knowledge is an expressive similitude that provides the *ratio expressionis*, but does not enter into composition with matter (Bonaventure 1250–52a: 601b, = *I Sent*. d.35, a.1, q.1, resp.).

The universe is, then, what Hayes calls "the external language-system in which the content of the immanent Word is expressed outside of God" (2002: 229). Each creature is a word spoken by God and an expression of God, but it is neither God nor in God; it is a creature in rela-

tion to God (Bonaventure 1250–52a: 483a, = *I Sent*., d.27, p.2, a.1, q. 1 concl.). Every word of the universe is the embodiment of God's self-communicative love. "*Verbum divinum est omnis creatura, quia Deum loquitur*" (Bonaventure 1254–57c: 16, = *Comm. in Eccl*., I, II, q.2, concl.: "Every creature is the Divine Word, because every creature speaks God."). All four of the elements constitutive of these created words are within the human body (the most complex example of Bonaventure's plurality of forms), and so it is a "summary" of the universe, a microcosm of the macrocosm. The human person as embodied spirit is thus subjectively apt to read and interpret the universal analogy of God's language of love. Hence, it is in the form of the human body that God fully reveals himself in Christ, as he unites all of creation in his body: the perfect "summary" of the universe of God's self-expressive Word.

18. Contuition and *Ordo*

The capacity of creation to be a universal analogy of God indicates the basis for what Bonaventure terms *contuition*[36] — in Hellman's summary: "a co-recognition, a co-knowledge of one object together with another, so that one cannot recognize one without also recognizing the other" (2001: 15). The basis for this co-recognition is an underlying structure that is common to both the Uncreated and created orders. Hellman hails this as "Bonaventure's basic insight" (2001: 14). What the human person recognizes in everything created is the presence of God in a particular *ordo*. Contuition is a simultaneous realization that the same order exists in both the created and the Uncreated, though one is imperfect and the other perfect. The most perfect experience of contuition occurs in contemplation, when the metaphysical structure of created beings is grasped as a vestige or image of God.

What is this underlying structure or *ordo* that is common to both created and Uncreated Life? Hellman continues to elucidate Bonaventure's schema. Order consists of three elements, since three is the first number that indicates both unity and plurality. These are called by Bonaventure the *postrema*, *media*, and *summa*; or also the *principium*, *medium*, and *ultimum*. One, by itself, is unintelligible, since "first" can only be understood in terms of "second"; two introduces duality and distinction, but distinction cries out for unity, since distinction cannot be realized unless one and two are related. Three allows for distinction but resolves the extremes into unity, harmony, and proportion. Bonaventure's theology is inexorably Trinitarian and Christological, therefore, just as the extremes of any created order are first and last with a middle that joins them. One
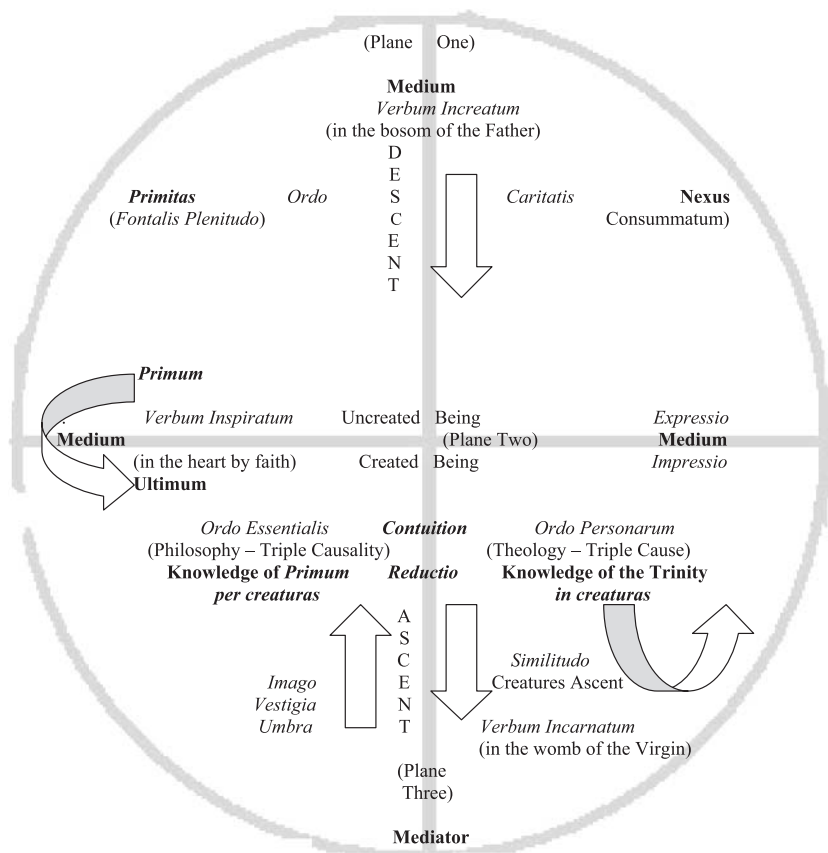

(Plane   One)

Medium
Verbum Increatum
(in the bosom of the Father)

D
E
S
C
E
N
T

Primitas   *Ordo*   *Caritatis*   **Nexus**
(*Fontalis Plenitudo*)   Consummatum)

Primum

Verbum Inspiratum   Uncreated Being   *Expressio*
Medium   (Plane Two)   **Medium**
(in the heart by faith)   Created Being   *Impressio*
Ultimum

Ordo Essentialis   **Contuition**   *Ordo Personarum*
(Philosophy – Triple Causality)   (Theology – Triple Cause)
Knowledge of *Primum*   *Reductio*   **Knowledge of the Trinity**
per creaturas   ***in creaturas***

A
S
C
Imago   E   *Similitudo*
Vestigia   N   Creatures Ascent
Umbra   T
                                          Verbum Incarnatum
                                          (in the womb of the Virgin)
(Plane
Three)

Mediator

Figure 2.   *The intersecting planes of Trinity, Exemplar, and Verbum Incarnatum*[37]

contuits the perfection of this order within the Uncreated Order, the inner Trinitarian life of God.

Here I may ask the reader to refer to Figure 2.

The Source of the Trinity is the *Primum* or First, which of necessity implies the Consummation or Last; and these two require a Center or Medium that joins them and brings them into Communion, closing the Intelligible Circle. The circle is a perfect form of Order since its starting point and ending point are the same. Within the *Ordo Caritatis*, this Uncreated Order overflows (*egressus*) into creation through the *Verbum Increatum* (the *Medium*), and the created order now becomes the *ultimum* of a second intelligible circle.

Hellman explains (2001) that *in the order of knowledge* (*Ordo Essentialis*) the consummation of this second circle is the return (*reductio*) to the *Primum*, which is able to be known philosophically as the First Being *through* understanding of the creatures investigated as shadow, vestige, image, and similitude (a Vertical Order).[38]

In the order of salvation the return through theology is to the Trinitarian God, to the *Primitas* — the name given by Bonaventure to the Father, the *Fontalis plenitudo* — who empties himself into the Son (Image/ Uncreated Word), and through the Son into the Holy Spirit — the *Nexus* or Bond of their Love (a Horizontal Order). In this salvific order (*Ordo Personarum*) the *reductio* (*conformitas*) or consummation into union with the Trinity is achieved — in faith and theology — through the *Verbum Incarnatum* (the Mediator, the God-Man). The Incarnate Word, Jesus the Christ, gives the Holy Spirit to all humans and the Spirit introduces them to the Divine Order of the Communion of Persons present and acting *in* all creatures through Christ. The *reductio* of the created person within the *Ordo Personarum* occurs at the level of *similitudo*.

The Center of *descent* in creation, and the Center of *ascent* to the *Primum* through triple causality in the *Ordo Essentialis* (vestige, image, likeness) is the *Verbum Increatum*. The Center of *descent* through the incarnation and the Center of *ascent* through the *Ordo Personarum* to the Triple Cause — the *Primitas*, *Verbum*, *Nexus* — is the same: Christ the Lord, the Medium, the *Verbum Incarnatum*.

The sevenfold development of the *Journey of the Mind* into God forms the ultimate *Signum* of Bonaventure's theology: The Intelligible Circle whose Center is found only through the Cross of Christ. ''For the center is lost in the circle, and it cannot be found except by two lines crossing each other at right angles'' (Bonaventure 1273: 333b, = *Hexaëmeron*, Coll. 1, n. 24).

19.   Contuition in the Itinerarium

In the *Itinerarium*, Bonaventure applies the experience of St. Francis, as he grew in knowledge and love of God, to the journey of human knowing. The Medium is a crucified Christ because, as Bonaventure states: ''our soul could not rise perfectly from the things of sense to a *contuitum* of itself and the eternal Truth in itself unless Truth, assuming human nature in Christ, had become a ladder, restoring the prior ladder that had been broken in Adam'' (Bonaventure 1259–1260: 306a, = *Itin.* 4.1). Hammond observes that ''The mind must be redeemed (i.e., reordered)

so that it might know the divine order reflecting in the created order''
(2001: 210).

Bonaventure creates an intriguing system of *reductio* (a ladder of hori-
zontal and vertical ''wings'') that consolidates the created order of being
(*specula — mirrors*) and the order of knowing (*speculatio*). This ladder
provides the possibility of *contuiting* the Uncreated Order as the means
of return. Each of the first six chapters of Bonaventure's *Itinerarium*
(1259–60a)[39] describes the journey into God through human knowing in
three sets of pairs — referring to the mind's three principal orientations of
physical (sensus), spiritual (spiritus) and mind (mens) — that correspond
to the six wings of the Seraph that appeared to Francis on Mt. Alverno
and impressed his bodily being with the likeness of the crucified.

The first two chapters of the *Itinerarium* treat of *contuition* through
the *vestigia* of creation (God as efficient, formal, and final cause) —
co-recognizing God first through creatures and then in creatures. The sec-
ond set of two chapters examines the human person's *contuition* of God
through his own spiritual powers, and then *within* his own spiritual
powers (*imago* — God as triple cause and object). Finally, the last set of
chapters treats of human experience beyond itself in likeness to God
through grace (*simulitudo* — God's indwelling presence as source of faith,
hope, and charity). Each of the mind's illuminations is a co-knowing of
God's presence. These six illuminations, together with the seventh of
Christ on the Seat of Mercy as the Medium of all Illumination, constitute
an iconic introduction to *Sign Relation*[40] in the thought of Bonaventure.

20.   Illumination, contuition, abstraction

Bonaventure assumes Augustine's theory of illumination as the founda-
tion for his theory of knowledge through sign, but Bonaventure com-
plements the concept of illumination with both Aristotle's theory of ab-
straction and his own theory of *contuition* in order to account for the
Expressio-Impressio-Expressio metaphysical relation that exists between
God as the *Object Signified*,[41] creation as the *sign-vehicle*, and the human
person as the sign-vehicle/*interpretant* (to use the language developed in
subsequent centuries by Poinsot, Peirce, and Deely).

Here a Figure may be helpful to the reader in visualizing Bonaventure's
semiotic synthesis: see Figure 3.

Since the human person is *impressed* by God as image of the Exemplar
having the light of reason, but also with physical senses capable of re-
ceiving the *expressio* of all things (sign-vehicles), human persons are ca-
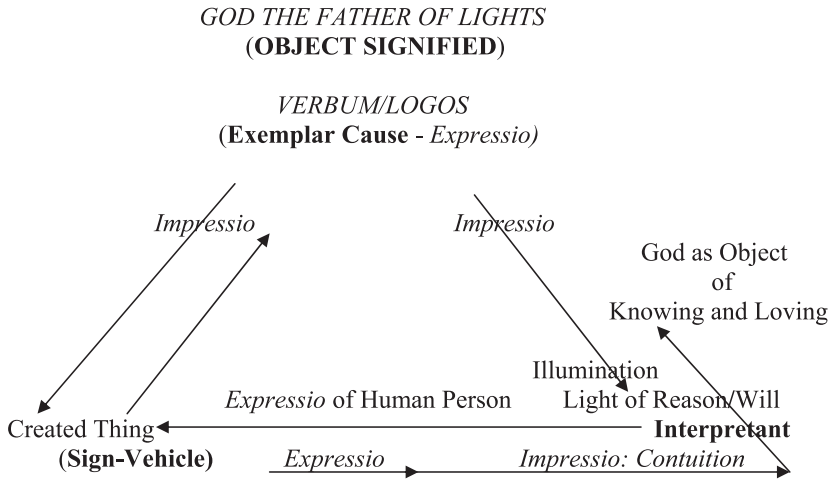pacitated to be mediating signs in relation with the Object Signified —

GOD THE FATHER OF LIGHTS
(**OBJECT SIGNIFIED**)

VERBUM/LOGOS
(**Exemplar Cause** - *Expressio*)

Impressio   *Impressio*

God as Object
of
Knowing and Loving

Illumination
Expressio of Human Person   Light of Reason/Will

Created Thing ←——————————————————— **Interpretant**
(**Sign-Vehicle**)   *Expressio* ——→   *Impressio: Contuition*

Figure 3.   *Bonaventure's synthesis of illumination, abstraction, and contuition*

God the Father of Lights. The human person is able to *receive* the physical expressions of created things and *contuit* the presence of the Object Signified.

As the created thing becomes (in Peirce's words) the *representamen* of the Signified, the thing-now-object (since known in its own reality, even if also in relation to the Signified) serves as a *ladder* by which the human person is able to ascend to the Signified.[42] And the Signified becomes, through *contuition*, the Object of the human person's spiritual powers of knowing and loving.[43]

For Bonaventure, knowing always involves the affect as well as the intellect — apprehension involves the perception of beauty and the judgment of a thing as helpful or harmful. The ascent to God is an ascent of the heart (*ascensus cordialis*) — an ascent of mind and affect (Bonaventure 1259–60a: 300b, = *Itin.* 2.5). At this point, according to Bonaventure, the human person becomes a True Image, as he/she participates in God's own power of knowing himself *immediately and directly*, not through senses. Like Augustine,[44] Bonaventure insists that it is only because of the prior illumination by God through Christ the only Teacher that the light of human reason is able to know at all — know the thing in its own nature, as object and knowable, and as sign-vehicle of the Signified.

Illumination is that presence of the Light of God to human reason that enables human reason to know, for the light of reason is but a

participation in Divine Reason.[45] Bonaventure states clearly that the Divine Light does not act before our intelligence but with it, at the same time. The Divine Light is not the object that we contemplate but the power that, penetrating our spirit, transforms it and renders it capable of seeing. Participating in Divine Reason, human reason is capacitated to discern whether the expression of the created thing is coherent with the Object Signified, and therefore to choose whether or not to receive the impression into his/her own understanding of Truth.

For Bonaventure as a theologian, there is only one possible model for each created thing that will enable it to be coherent with the Object Signified: the Trinity. Hence, for him, the model of the Trinity *necessarily* illuminates every created reality. This corresponds with Peirce's designation of every reality as triadic in nature. Differing from Aristotle in his understanding of *necessary reasons*, Bonaventure means that he has found a correspondence between human experience and the Trinity, and he considers that correspondence the only possible explanation of what we experience. This is an argument that shows necessity not in the sense of compulsion, but rather as a *logical consequence* of what is self-evidently true. Bonaventure first states what is logically necessary, and then he looks to human experience for an analogical manifestation of that truth, which manifestation he formulates as the necessary, or justifying, reason. He thus makes faith intelligible through recourse to the "book of life."

Faith is, for Bonaventure, a loving summation of a Formal Object, achieved through a complementarity of intellectual penetration and personal adherence. Those impressions judged as coherent with the Signified Trinitarian model and assimilated into the *intellectum* of the human person are then mediated into a return (*regressus*) to the Father of Light. The capacity of each created thing to *express* its own unique light and then *impress* itself upon the human senses, and so enter into the human light of reason, initiates through the sign relation the possibility of the return of things, both nonhuman and human, to God.[46] Hence the natures of both (non-human and human, material and spiritual), comprising the whole of creation, find fulfillment.

21.   Peirce, Bonaventure, semiotics, and God

Does Bonaventure's analogical understanding of Faith through Sign correlate with anything Peirce himself expressed regarding semiotics as a way of knowing God?

I believe that it does, beyond even the overarching understanding of God as Love, as discovered by both writers in the Gospel of John.

Michael Raposa, in his study of Peirce's philosophy of religion (Raposa 1989: 130–154), uses language and draws conclusions that cannot fail to bring Bonaventure to mind. Peirce calls the world God's "argument" or his "great poem" that forms the basis for his "theological semiotic." He too concludes, like Bonaventure before him, that "though we cannot think any thought of God's, we can catch a fragment of His thought, as it were" ("Answers to questions concerning my belief in God," *CP* 6.502, c. 1906).

How do we manage to catch this fragment? Through what Peirce refers to as Musement, a deliberate process of *abduction*, or forming hypotheses that enable a person to see the three universes (the semiotic triad) in a new way while engaged in meditative thinking.[47] New categories and classifications emerge as the Muser "plays" — connecting, disconnecting, and rearranging data continuously. Peirce admits readily that the great beauty of the *summum bonum* exerts great power over the mind that compels the affirmation of the Divine Reality. Peirce explains (Letter to William James, *CP* 8.262, 23 July, 1905) that "the human mind and the human heart have a filiation to God" that makes the gentle influence of God irresistible and acknowledgement of God as "living" necessary.

Abduction forms a triad with induction and deduction as ways of knowing, but abduction is the primary logic of sign-interpretation, while deduction is concerned with the mitigation of their vagueness, and induction tests their adequacy. To interpret the meaning of some thing, one has to form a certain hypothesis about it. "Hypothesis substitutes, for a complicated tangle of predicates attached to one subject, a single conception" ("Deduction, induction, and hypothesis," *CP* 2.643, 13 August, 1878). Abduction suggests the hypothesis by resemblance — the resemblance between the observed configuration of facts and the system of beliefs and habits of life of the Muser is the source of the abduction.[48] The hypothesis can come by a long process of reasoning, or through immediate and unconscious perception, but experience is always interpreted experience. Experience itself is not the source of ideas. Experience presents us with the *objects* but not the *meaning* or interpretants of the objects as signs. Grasping the meaning requires abductive insight; experience provides only the occasion.

Experience remains mute apart from the creative imput of the human intellect. Perception (the cognition of meaning) is a process governed by the law of the mind — the law of the association of ideas — and is itself a communication event. Peirce observes, at the young age of twenty-three: "A man looks upon nature, sees its sublimity and beauty and his spirit gradually rises to the idea of God. He does not see the Divinity, nor does nature prove to him the existence of that Being, but it does

excite his mind and imagination until the idea becomes rooted in his heart" ("The place of our age in the history of civilization," *W* 1: 108–109, 1863).[49]

The meaning of the symbol of God is too vast and complex to be embodied in the life of a single individual, and so requires an unlimited *community* of interpreters destined to discover and to embody the meaning of the divine poem only in the long run. Individuals catch but a fragment of God's thought.

Like Bonaventure, Peirce's understanding of God does not remain in the realm of thought, but extends through meditative prayer into the realm of praxis — in belief-habits that shape human conduct as they do perceptions. The method that Peirce outlines begins with an act of interpretation, a reading of signs presented in human experience; it proceeds through exploration and clarification of that interpretation as it utilizes it as a rule for living, a habit of action.[50]

For Peirce, universal semiosis is the dynamics of objective mind — a continuous relation of object and interpretant in signs. It is the means by which God relates to and communicates with lesser minds; and if all reality is continuous, then everything is potentially a sign of God's presence, and semiotics is in a real sense theosemiosis. But for Peirce all theological reflection must be attached to praxis and the role of the community. Religious meditation, theological inquiry, and moral practice need to be continuous in order that truth will be discovered in the long run by the unlimited community of inquirers.[51] Since every sign has an infinite number of interpretants, and individuals are themselves signs communicating in reciprocal acts of interpretation, Raposa concludes that persons, communities, sacred texts and traditions are each the living embodiment of meaning and the fragment of more complex systems of meaning.

As Gilson observed, Bonaventure, the Mystical Theologian, posits in *thought* — in this case a theological semiotics — what St. Francis *lived*: an intimacy of relationship with God, the human community, and all of creation established through a *metaphysics of manifestation*. Christopher Cullen (2000) summarizes this well when he explains that all the things of the world must be signs because, if they were not, it would mean that there is a cause other than God, or that God did not know. But clearly both of those options are impossible, for God is the only source for reality and God knows and the knowledge that God knows is one with himself. Truth is the one divine essence, and the multiform wisdom of God lies hidden in all knowledge and in all nature. Cullen concludes:

Bonaventure's doctrine means that creation itself is a theophany — a manifestation of God. There is total identity between the world and God and total differ-

ence. There is a total identity insofar as the whole world is a sign from God as the Signifier; and there is a total difference insofar as God is completely beyond the sign he has given. Insofar as God is immanent, he is also transcendent. Indeed, only God's radical immanence preserves His utter transcendence. Everything is a sign of its Signifier, but he is a Signifier who is utterly beyond what any sign could mean. (Cullen 2000: 324)

22. Summary and conclusion

Omnia enim vera sunt et nata sunt se exprimere per expressionem illius summi luminis (Bonaventure 1250–52a: 151b, = I Sent., d.8, p.1, a.1, q.1 ad 4 et 7).

Bonaventure's *Metaphysics of Manifestation*, developed in the mid-thirteenth century, anticipated the core theories developed by Poinsot and Peirce centuries later. While Bonaventure does not focus on elucidating the theory of sign introduced by Augustine, he presupposes it, exfoliates Augustine's foundational terms, and so contributes a theology that is hailed as the culmination of the Augustinian tradition. It is, thus, the common source in Augustine's thought that provides the link between the symbolic theology of Bonaventure and the semiotics of Poinsot and Peirce.

"*For all things are true and are born to express themselves by means of the expression of that highest light*," as Bonaventure summarized in our quotation which opened (and which will close) this "concluding summary." This insight, lavished upon Bonaventure while meditating upon the life of St. Francis, summarizes also his contemplation of the cosmos and his semiotics. Within it, we perceive Deely's central premise that "Every sign consists in the three-cornered *relation itself* connecting the sign at one and the same time to the mind and to the object signified" (2001: 219). Because of this three-cornered relation, the human knower (Peirce's *interpretant*) is able to judge and integrate into himself the truth of every sign-vehicle (*the knower becomes that which he knows*). The sign-vehicle is integrally capable of expressing itself, both in its own nature and as integrally related to the Object Signified, *because* the Object Signified is *related to and present within both the sign-vehicle and the knower*.

Bonaventure under-girds this insight with a unique intertwining of multifaceted understandings: of Light as the principle of physical, intellectual, and spiritual knowing; of the Trinitarian relations as *Primitas*, *Verbum*, and *Nexus*; of the Medium, mediation, and reduction; of the Divine *Ordo Caritatis*, *Ordo Essentialis*, and *Ordo Personarum*; of the dynamics of *expressio-impressio-expressio*; of dynamic innatism; of

exemplarity (Divine Ideas/seminal ideas); of *umbra*, *vestigia*, *imago*, and *similitudo*, and of contemplation through illumination and *contuition*.

Light — the principle of energy and activity — provides the key to Bonaventure's semiotics, a *metaphysics of manifestation*. It is light that physically makes manifestation possible — the *impressio* and subsequent *expressio* of the sign-vehicle; the *impressio* in the knower and subsequent *expressio* ("*Let your light shine before men that they may see your good works and give glory to the Father*": Matt. 5:16). These are both rendered possible by the *Expressio* of the *Verbum* of the Father of Lights, the *Primum* and the *Fontalis plenitudo*, in the mode of Exemplarity.

It is light that *intellectually* makes knowledge possible — through the light that renders natural human reason capable of discerning whether the *expressio* of the sign-vehicle coheres with the Object Signified; through the innate idea of God which the human person *discovers* as the capacitating model of his/her own thinking process; through Christ the Light who has come into the world to enlighten every human being and mediate the final communion with the Trinity in the *Ordo Personarum*.

It is light that *spiritually* makes knowledge possible — through contuition (the simultaneous co-recognition of sign-vehicle and Object Signified), the human knower is capable of making God the object of his knowing and loving powers in contemplation. This contuition is possible *only because* of the truth recognized only much later by semiotics — that the sign-vehicle is not equivalent to the *signum* (see Deely 2002b). Rather, the Sign is the three-cornered RELATION of Object Signified, sign-vehicle, and interpretant; it is this co-inhering relation that makes contuition, as Bonaventure understands it, possible.

Bonaventure recognized this fact when he stated that "everything exists toward something — a relation." It is this integrally triadic nature of all reality that is the common basis for the semiotics of Bonaventure and of Charles Peirce. Both unequivocally agree that the correspondence between sign-vehicle, object signified, and interpretant in triadic relation constitutes the only possible explanation of human experience; the logical explanation of what is self-evidently true. Through contuition, Bonaventure, a theologian, goes one step beyond the *musement and abduction* of Peirce, the philosopher. Bonaventure names the Object Signified as the Triadic Nature which is the Source of all communication and communion: *Primitas*, *Verbum*, *Nexus*.

For Peirce, Poinsot, and Augustine, as for Bonaventure, human experience and human knowledge are ultimately about and for communication, communion, and Love. For Peirce, semiotics explains *What Is*; for Bonaventure, the sacramental nature of the cosmos reveals *Why it is how it Is*. Through musement and abduction, Peirce experiences the "great poem"

of the world as the gentle but irresistible influence of God pressing human beings to acknowledge him as ''living.'' Through contuition, Bonaventure knows that all things that exist exhibit this truth — that they have come into existence in order to manifest that they are a reflection of that highest light (*Omnia enim vera sunt et nata sunt se exprimere per expressionem illius summi luminis*, Bonaventure 1250–52a: 151b).

Notes

1. If one looks at the Annual Proceedings volumes of the Semiotic Society of America (beginning with *Semiotics 1980*, and continuing each year thereafter), in the *Semiotics 1983*, *1984*, and *1985* volumes one finds sections on ''Neglected figures in the history of semiotic inquiry,'' with discussion of Ramon Lull (1232–1314), Francis Suarez (1548–1617), Thomas Hobbes (1588–1679), Gustav Spet (1879–1940), Thomas Reid (1710–1796), Michael Polanyi (1871–1976), Martin Buber (1878–1965), Kazimierz Twardowski (1866–1938), Conimbricenses (sixteenth-seventeenth centuries), Philipp Wegener (1848–1916), Konrad Lorenz (1903–1989), John Henry Newman (1801–1890), Martin Heidegger (1889–1976), Gaston Bachelard (1884–1962), Prague, Graz, and Vienna schools (early twentieth century), Josiah Royce (1855–1916), John Dewey (1859–1952), and Stéphane Mallarmé (1842–1898) — a rather distinguished list. To that list, no doubt far from complete, the present essay adds St. Bonaventure.

2. ... there is a threefold help for rising to the exemplary principles, that is, the sensible creatures, the rational creatures, and the sacramental scriptures: and this help contains a mystery. As regards the first, the whole world is a shadow, a way, and a trace; a book with writing front and back. Indeed, in every creature there is a refulgence of the divine exemplar, but mixed with darkness: hence it resembles some kind of opacity combined with light. Also, it is a way leading to the exemplar. As you notice that a ray of light coming in through a window is colored according to the shades of the different panes, so the divine ray shines differently in each creature and in the various properties ... Every spiritual substance is light. Hence, the Psalm: The light of Thy countenance, O Lord, is signed upon us. At the same time it is a mirror, for it receives and represents all things; and it has the nature of light, so that it may even pass judgment on things. For the whole world is described in the soul. It [the spiritual creature] is also an image. Since it is both light and mirror containing images of things, it is image too.... But the third help is that of sacramental Scripture. For the whole of Scripture is the heart of God, the mouth of God, the tongue of God, the pen of God, a scroll written within and without. Bonaventure (1273, *Hexaëmeron*, Coll. 12, n. 14, 16 in 1970 DeVink trans.)

3. As cited in Deely (2001: 221, from *De doctrina Christiana*, Book I, ch. 1): ''A sign is anything perceived which makes something besides itself come into one's awareness.''

4. = *IV Sent.*, d. 1, p.1, a.1, q.2. Poinsot captures this point (1985 [1632]: Book I, Question 3) by saying that the sign respects its significate directly (*id quod*) but its interpretant only indirectly (*id cui*).

5. ''And since presenting objects is exactly the function of signs, the action of signs is a species of this last distinguished extrinsic formal causality, called 'specificative,' rather than a species of either final causality or exemplary causality'' (Deely 2001: 631–633).

6. "Si ergo sua bonitas consistit in communicatione actus nobilissimi, qui est vivere et intelligere, decuit, ut non tantum daret alii potentiam vivendi et intelligendi, sed etiam potentiam alii communicandi" (1250–52b: *II Sent.* d. 1, p. 1, a. 2, q. 2, fund. 3).

7. "Et ideo intelligendum quod cum creatura ducat in cognitionem Dei per modum umbrae, per modum vestigii et per modum imaginis differentia eorum notior, a qua etiam denominator, accipitur penes modum repraesentandi. Nam *umbra* dicitur, in quantum repraesentat in quadam elongatione et confusione; *vestigium*, in quantum in elongatione sed distinctione; *imago* vero in quantum in propinquitate et distinctione" (Bonaventure 1250–52a: 73a, = I Sent. d.3, p.1, a.1, q.2 ad 4, italics added).

8. See Aristotle c. BC348/7b, *Physics* 6.1 (231b1–5) and c. BC348/7a, *Analytica posteriora* 1.23. In Bonaventure, see 1254–1257a: 243a, = *Breviloquium*, Pars IV, c. 2.

9. See Aristotle c. BC330: *Metaphysica* 10.7 (1057a–b), and c. BC335/4: *Ethica Nichomachea* 2.8–9. See Bonaventure (1250–1252b: 561, = *II Sent.*, d.24, p.1, a.2, q.1, arg. 6; also 1273 [= *Hexaëmeron*], e.g., page 334).

10. "And so it appears that the whole world is like a single mirror, full of luminaries that stand before divine Wisdom, shedding light as would live coals" (Bonaventure 1273: *Hexaëmeron*, Coll. 2, n. 27, in 1970 DeVinck trans.).

11. "And so, in the end, the universe as a whole, in terms of medieval semiotic theory, exactly as Peirce later projected, comes to be 'perfused with signs, if it does not consist exclusively of them.' For now we see that there are signs and there are signifieds, and that whatever is signified can itself become a sign in relation to other objects signified!" (Deely 2001: 435).

12. Ontological relation: a relation may have a source in nature or in thought, but in either case the relation as such remains a pure relation. Pure relation: what exists not as or within an individual but with its whole being between other things. See Deely (2001: 423).

13. "Dicendum, quod cum imago dicatur ab actu repraesentandinam imago refertur ad prototypum, ut dicit Damascenus et repraesentatio dupliciter possit convenire alicui: vel per formam *naturalem*, vel per formam *artificialem*; quod duplex est imago, *naturalis* scilicet et *artificialis*. Et cum homo non repraesentet per formam *artificialem*, sed per suam formam *naturalem* et potentias ei naturaliter inditas; homo non est imago *artificialis*, sed *naturalis*" (Bonaventure 1250–52b: 397b, = *II Sent.*, d.16, a.1, q.2).

14. "Aliae creaturae possunt considerari ut res, vel ut signa" (Bonaventure 1250–52a: *I Sent.*, d. 3, p.1, a.1, q. 3 ad 2).

15. The "great divide" here, of course, is Kant, with his proposal of the world as unknowable Ding-an-sich, and God and the soul as unknowable *noumena*. See Deely (2001: ch. 13).

16. "Morbus autem est originalis culpa, quae per ignorantiam inficit mentem et per concupiscentiam inficit carnem . . . Ad hoc ergo, quod medicina correspondens esset omnibus supradictis, oportuit, quod non tantum esset spiritualis, verum etiam aliquid haberet de sensibilibus signis, ut, sicut haec sensibilia fuerunt animae occasio labendi, ita essent ei occasio resurgendi" (Bonaventure 1254–57a: 265a, = *Breviloquium*, Pars VI, c. 1).

17. See Breton (1943: 79); Bonaventure (1250–52a: 72a–73b, = I Sent., d.3, p.1, q. 2).

18. Cf. "Basis of pragmaticism," *CP* 5.448, 1906: "The October remarks made the proper distinction between the two kinds of indeterminacy, viz.: indefiniteness and generality, of which the former consists in the sign's not sufficiently expressing itself to allow of an indubitable determinate interpretation, while the [latter] turns over to the interpreter the right to complete the determination as he please. It seems a strange thing, when one comes to ponder over it, that a sign should leave its interpreter to supply a part of its meaning; but the explanation of the phenomenon lies in the fact that the entire

universe — not merely the universe of existents, but all that wider universe, embracing the universe of existents as a part, the universe which we are all accustomed to refer to as 'the truth' — that all this universe is perfused with signs, if it is not composed exclusively of signs. Let us note this in passing as having a bearing upon the question of pragmaticism."

19. "Relucet autem Creatoris summa potentia et sapientia et benevolentia in rebu creatis secundum quod hoc tripliciter nuntiat sensu carnis sensui interiori" (Bonaventure 1259–60a: 298b, = *Itinerarium* c. 1, n. 10).

20. "Ergo ad hoc, quod divina potentia manifestatu plene, necesse fuit substantiam spiritualem et corporalem producere, rursu productas unire" (Bonaventure 1250–52b: 41b, = *II Sent.*, d.1, p.1, a.2, q.2, fund.1).

21. For extensive treatment of mankind's position as medium in creation, see Schaefer (1965).

22. "The sign-vehicle, thus, in contrast to the sign-relation, is the representative element in the sign, while the relation arising from this foundation, obtaining (or obtainable) *over* and *above* the foundation, and *terminating* at a signified object, alone makes this representative element a representation of *something other than itself*. In the absence of this relation, hence, the foundation becomes merely virtual or material as a foundation and is then experienced simply as a *self*-representation or object" (Deely 2001: 638).

23. "So the knowledge of being may depend on the prior action of signs; but being must become known before signs can become known, and the investigation of the action of signs must await the establishment of the reality of what is acting, if the science is not to be empty. And what comes first, *before or into our awareness* is not a sign as such but being as a distinctive object, the 'formal object', as we may now say, distinctive of understanding as species-specifically human" (Deely 2001: 341). See also Deely (2002a); and Guagliardo (1993, 1994).

24. Interpretant: "that to which the Significate is presented through the sign-vehicle" (Deely 2001: 434).

25. The very reason for this is well-stated by Deely (2001: 434): "The actual *signification itself* consists in the relation between the vehicles and the knowability of their objective content."

26. It is critically important to note here that what Bonaventure speaks of as an "innate idea" of God differs radically from the modern notion of innate ideas as proposed by Descartes and developed within modern philosophy. Bonaventure's process of dynamic innatism stands in polar opposition also to modern philosophy's stripping away of sensible characteristics in order to formulate the abstract concept.

    According to Bonaventure, the human mind — upon the occasion of experiencing created realities, and particularly in this instance, of itself as created mind — immerses itself in the *incarnational* nature of its own thinking. In this experience, the mind perceives its own thinking process and simultaneously *contuits* the Reality of the Divine Mind intimately present to its mental operations — as the Exemplar Model and Source of its activity (see section 14, Contuition, and following); it does not begin with a direct apprehension of "the idea of God," as Descartes interprets innateness. What is *directly known* by the human mind is the human thinking process; what is *indirectly known* (contuited) in a confused, ambiguous manner, but known all the same, is what Bonaventure terms *the innate idea of God* that has been *impressed* upon it, enabling the human mind to *express* itself in human thought. This Real Presence of God to the human mind is the Light and Source of its own natural light: human reason.

    This confused, ambiguous idea of God develops some specificity as the human mind forms concepts of oneness, truth, beauty, goodness, and first principles. Even as the

mind recognizes these principles of its thinking process, it, in turn, contuits them as necessary principles of the Source and Model of human thought.

It is in this most intimate manner that human reason is a *participation* in Divine Reason — not simply as a distant image of its Exemplar — but the "repeating in our intellect of the same order of knowing which is proper to the divine intellect," as Bettoni (1964) observes. Bonaventure's innate idea of God is both Transcendent to the human mind and Immanent — the Light and Presence that is 'more intimate to us than we are to ourselves' that Augustine ponders. Bonaventure's "innate idea of God" is discovered within the mystery of the Incarnation — known in and with his creation, albeit transcendent of it.

Thus Bonaventure's process of coming to know God 'contuitively' contrasts also starkly with the notion of reaching the 'idea of God' by any process of "abstraction" stripping away sensible characteristics in order to form an intellectual concept.

27. "She appears unchanging in the rules of divine Law that bind us. These rules filling the rational mind with splendid light are all the ways by which the mind knows and judges that which could not be otherwise ... these rules are beyond error, doubt, and judgment for judgment is by them and not of them ... They are also beyond change, restriction and cancellation ... For these rules are so certain that they cannot be contradicted in any way ... for they are rooted in Eternal Light and lead to it, but this does not make such light visible. Nor should it be said that they are founded on any created light ... For these rules are unrestricted in that they offer themselves to the minds of all" (Bonaventure 1273: *Hexaëmeron*, Coll. 2, n. 9, 10, in the 1970 DeVinck trans.).

28. "Unde dicendum, quod illam inspirationem et vident et audit, sed tamen ex hoc non sequitur, quod videat Deum" Bonaventure (1254–57d: 331a, = *Comment. in Ioan.* c. 6, n. 78).

29. The definition of the term *contuition*, as used by St. Bonaventure, will emerge throughout this paper. Bonaventure indicates a direct and simultaneous knowing of both the creature and the Creator, although the Divine presence is not completely objectifiable in the finite. In and through the particular sensible expression of the creature, its inner being is able to be known. The beauty of this inner being is a direct experience of the Divine Idea in Exemplar form.

30. "For certain knowledge, eternal reason is necessarily involved as a regulative and motive cause, however, not as the sole cause, or in its full clarity; but along with a *created cause*, and as contuited by us 'in part,' in accord with our present state of life" (Bonaventure 1254a: 23, = *De sci. Chr.* q.4c).

31. "In those actions which proceed from the creature as an image — and such are the intellectual actions by which the soul sees immutable truth itself — God cooperates as object and as motivating reason ... if he were the bare and open ground of knowledge, there would be no difference between our knowledge in this life and our knowledge in heaven. But this is clearly false, since in heaven our knowledge will be face-to-face, while on earth ... our knowledge depends on the sense phantasms. Finally, if he were the total ground, we would have no need of species and reception to know things. This we see to be manifestly false, because when we lose one of our senses, we necessarily lose one type of knowledge" (Bonaventure 1254–57b, in the Johnson 1999 trans.: 161–162).

32. "Again there are in angels some virtues related to rational souls through which they govern men. Indeed, they are the conveyors of light and the uplifters of intelligences so that illuminations may be received. And so there is in them a conveying power, because they are a certain light and transparency, and they temper the divine light within themselves for our sake, so that it may be proportioned to us. Second, there is in them

an uplifting power through which they make us able, by condescending to us and rais-
ing us up, to receive this particular radiation, and yet not as achieving it themselves.
Finally, there is in them a supreme power through which they turn themselves to God
in the act of receiving splendors, and the eternal light they love; and all things lead
back to this light in order that they may tend toward God through love and praise."
(Bonaventure 1273: *Hexaëmeron*, Coll. 5, n. 27, in the 1970 DeVinck trans.) For an
extended discussion of angels in semiotic perspective, see Deely (2004b).

33. "*Rationes exemplares* expresses these potencies from the viewpoint of their Author
or Exemplar; rationes seminales from the viewpoint of that in which they exist in a
manner comparable to seeds" (Bonaventure 1273: *Collationes in Hexaëmeron*, in the
1970 DeVinck trans.: 302). Both *exemplares* and *seminales* represent those potencies
in matter that determine their development in God's preordained plan, according to
Bonaventure.

34. "Tunc autem est immediata coniunctio secundum rationem cognoscendi, quando co-
gnoscens cognoscit cognoscibile vel per essentiam cognoscentis, vel per essentiam cog-
niti; et tunc non est opus similitudine intermedia, quae differat ab utroque extremorum.
Nihilominus tamen ipsa essentia, in quantum est ratio cognoscendi, tenet rationem
similitudinis; et hoc modo ponimus similitudinem circa divinam cognitionem, quae
non est aliud quam ipsa essentia cognoscentis" (Bonaventure 1254a: 10b, = *De sci.
Chr.*, 2 ad 11).

35. "The third level consists in this, that the intellect itself, considering the condition of be-
ing in the light of the relationship between cause and caused, moves itself up from the
effect to the causes and passes over to eternal reasons ... But intelligence is led to this
light in a threefold manner: by reasoning, testing, and understanding; rationally, exper-
imentally, and understandingly" (Bonaventure 1273: *Hexaëmeron*, Coll. 5, n. 28, 29, in
the 1970 DeVinck trans.).

36. See Bonaventure 1254a: *De sci. Chr.*, q. 4, concl., also ad 16; 1273: *Hexaëmeron*, Coll.
2, n. 9; 1254–57b: *Christus unus Omn. Magister*, n. 17.

37. In what is diagrammed in Figure 2, two dimensions actually must be envisioned as three
intersecting circular planes. The first Intelligible Circle represents the Trinity in Rela-
tionship, with the *Verbum Increatum* as the Medium (Produced and Producing) be-
tween the *Primitas* and the *Nexus* (*Ordo Caritatis*). In the second intersecting circular
plane, the Divine Order is expressed/impressed through the Medium of the Exemplar
(the *Verbum Inspiratum*) and is understood rationally and affectively by human crea-
tures through the *Ordo Essentialis*. In the third intersecting circular plane, the Orders
of Wisdom, Creation, and Salvation (the fullness of the Divine Plan) are mediated to
the Created Order by the *Verbum Increatum*, *Inspiratum*, and *Incarnatum*, to bring hu-
manity Full Circle into the *Ordo Personarum*.

38. "Although the metaphysician is able to rise from the consideration of created and par-
ticular substance to that of the universal and uncreated and to the very notion of being,
so that he reaches the ideas of the beginning, center, and final end, yet he does not at-
tain the notions of Father, Son, and Holy Spirit. For the metaphysician rises to one
notion of this being by seeing it in the light of one original principle of all things, and
in this he meets physical science that studies the origin of things. He also rises to the
notion of this being in the light of the final end, and in this he meets moral philosophy
or ethics, which leads all things back to the one Supreme Good as to the final end by
considering practical or speculative happiness. But when he considers this being in the
light of that principle which is the exemplar of all things, he meets no other science, but
is a true metaphysician" (Bonaventure 1273: *Hexaëmeron*, Coll. 1, n. 13, in the 1970
De Vinck trans.).

39. "Hic igitur sex considerationibus excursis tanquam sex *gradibus throni veri* Salomonis, quibus pervenitur ad pacem, ubi verus pacificus in mente pacifica tanquam in interiori Hierosolyma requiescit; tanquam etiam sex *alis Cherub*, quibus mens veri contemplativi plena illustratione supernae sapientiae valeat sursum agi; tanquam etiam sex *diebus primis*, in quibus mens exercitari habet, ut tandem perveniat ad sabbatum quietis; postquam mens nostra contuita est Deum *extra se* per vestigia et in vestigiis, *intra se* per imaginem et in imagine, *supra se* per divinae lucis similitudinem super nos relucentem et in ipsa luce, secundum quod possibile est secundum statum viae et exercitium mentis nostrae; cum tantum in *sexto* gradu ad hoc pervenerit, ut speculetur in principio primo et summo et mediatore *Dei et hominum*, Iesu Christo, ea quorum similia in creaturis nullatenus reperiri possunt, et quae omnem perspicacitatem humani intellectus excedunt: restat, ut haec speculando transcendat et transeat non solum mundum istum sensibilem, verum etiam semetipsam; in quo transitu Christus est *via* et *ostium*, Christus est *scala* et *vehiculum* tanquam *propitiatorium super arcam Dei collocatum* et *sacramentum a saeculis absconditum*" (Bonaventure 1259–60a: 7.1).
40. "Signs act through their foundation, but the actual sign as such is not the foundation but the relation which exists over and above the foundation linking it as sign-vehicle to some object signified ... For the sign as such consists purely and simply in the *relation between* sign-vehicle and object signified, effected as such through an interpretant, an actual or prospective observer, as we might say" (Deely 2001: 431).
41. "... every significate is part of the sign-vehicle/object signified/interpretant trichotomy, never of a dichotomy, because no sign-relation can be binary in its proper being, and every object exists as the signified term of the three-term relation which constitutes the sign in its proper being" (Deely 2001: 682).
42. "Dicendum, quod visibilia possunt dupliciter considerari: vel ut res absolutae vel ut signa et nutus ducentia in aliud. Primo modo si amentur et considerentur retardant intellectum et affectum; secundo modo iuvant; et sic est in apparatione visibili, quia ibi consideratur creatura ut *signum faciens aliud in intellectum venire*" (Bonaventure 1250–52a: 281b–282a, = *I Sent.* d.16, a.1, q.2 ad 3).
43. "Recognition of the connection in every case depends upon our experience. But the *connection recognized* sometimes transcends that dependence and *is recognized so* to transcend. Part of what is recognized is the transcendence, the irreducibility to our experience" (Deely 2001: 719).
44. "... were there no illumination from within the mind of one who inquires, signs would avail for nothing whatever in knowledge and life. This illumination from within the mind alone enables us to see things as they are, signs and other objects alike (*signa et res*), so that only the Truth which speaks within the soul, which Augustine identifies with Christ, the only Teacher, not the use of signs as such, is able to instruct the human soul" (Augustine c. 397, as cited in Deely 2001: 218).
45. "Light clothes itself in four different ways. For it is seen as uniform in the rules of Divine Law, as manifold in the mysteries of divine Scripture, as assuming every form in the traces of the divine works, and as without any form in the elevations of divine raptures" (Bonaventure 1273: *Hexaëmeron*, Coll. 2, n. 8, in the 1970 DeVinck trans.).
46. "And so, when the soul sees these things, it seems to it that it should go through them from shadow to light, from the way to the end, from the trace to truth, from the book to veritable knowledge which is in God. To read this book is the privilege of the highest contemplatives, not of natural philosophers; for the former alone know the essence of things, and do not consider them only as traces" (Bonaventure 1273: *Hexaëmeron* Coll. 12, n. 15, in the 1970 DeVinck trans.).

47. Compare Bonaventure 1273: *Hexaëmeron* Coll. 20, n. 10, where he describes "perfect contemplation" as a threefold Love that lifts us up to God. Peirce's three universes call to mind Bonaventure's three hierarchies: the heavenly (the three Persons in God); the created (angels and humans); the human soul (hierarchical acts of gradual illuminations and progressive expression by which they come to resemble God in their dispositions and actions).

48. Compare Bonaventure 1273: *Hexaëmeron*, Coll. 10, n. 10–18. Bonaventure develops his hypothesis for the existence of God through a lengthy process of reasoning based upon interpreted human experience of every creature contributing to the making of the mirror by virtue of order, origin, and fulfillment and finally concludes "And so, these thoughts concerning order, origin, and fullness lead to this first Being which all creatures represent. But this name is written in all things: and it is upon these conditions of being that the most certain reasonings are founded. Hence it is said: 'The first of all created things is being.' But I say: the first of all intelligible things is the First Being." See the discussion of dynamic innatism in section 13.

49. Compare Bonaventure 1273: *Hexaëmeron*, Coll. 20, n. 8, in the 1970 DeVinck trans.: "Consider that in the contemplative soul the sphere of the universe is described, and a certain heavenly spirit that has inscribed within it the whole sphere. There is also described in it the supersubstantial radiation which contains both the sphere of the universe and the universe of the spirits. Wherefore within the contemplative soul there are marvelous lights and a marvelous beauty. And so, as the world, beautiful from top to bottom, from beginning to end, described in the soul produces a mirror; and any spirit is a mirror: so also in the soul there is a marvelous multiplicity, supreme order, and supreme proportionality ... Again, the radiation which contains every disposition and represents every theory exists within the soul, and the soul is absorbed in it through a transformation of the mind in God ..."

50. Compare Bonaventure 1273: *Hexaëmeron*, Coll. 20, n. 15: "Likewise, the radiation of eternity cannot be faced as such, but if we look upon it as it exists in the Church, veiled under the sacraments and figures, we may perceive the One who shows us what has been done, what should be done, and what exists in eternity: what has been done, through allegory; what should be done, through tropology; what exists in eternity, through anagogy."

  Bonaventure's three hierarchies are correlated with three modes of interpretation: allegory, tropology, and anagogy. DeVinck clarifies: "Allegory refers to the symbolical prefiguration of a truth of faith or understanding. It is in the order of reason. Tropology refers to matters of ethics. It is in the order of human conduct. Anagogy refers to the ascent toward God. It is in the order of the Last Judgment and of union with God. It is both mystical and teleological" (1970: 309). These further correspond with nature, grace, and glory or image, likeness, and similitude. DeVinck continues: "Nature shows traces of God through acts of perception. Grace shows the likeness of God through the operation of the rational powers. Glory is the God-conforming final stage of the ascent" (1970: 329).

51. Compare Bonaventure 1273: *Hexaëmeron*, Coll. 19, n. 10: "Man cannot attain the understanding of such things by his own power, but only through those men to whom God revealed them, that is through the original writings of the saints such as Augustine, Jerome, and others. It is fitting, then, to have recourse to those original writings: but they are difficult. Therefore there is need for the summas of the masters in which the difficulties are elucidated. But one must beware of an over-abundance of writings. Yet, since the philosophers quote these same writings, it is necessary for a man to know them or to take them into consideration."

Cf. also Bonaventure 1273: *Hexaëmeron*, Coll. 9, n. 23, 1970 DeVinck trans.: "The fourth reason for the firmness of the faith consists in the solid opinion of witnesses [words of Scriptures, decrees of councils, and writings of saints]. This solidity results from the fact that reason agrees, for reason cannot contain contradiction. So the judgment rests on a demonstration of reason: that thoughts about God must be supreme and of the highest order."

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Understanding the four ages of thought

IVAN MLADENOV

Abstract

Thinking of one's own thinking is not a favorable job even for philosophers. It seems natural for humans, unnatural for animals, and that is all. Hypotheses are used to explain the patterns of thinking, instead of the flow of thinking in different patterns. The usual approach is to attribute sense to phenomena, rather than to study them "as they are." As for sense, it is indisputably present. This has been the way undertaken by philosophers over centuries. In his thousand-page "first postmodern survey of philosophy from ancient times to the turn of the twenty-first century," John Deely traces the main paths of human thought but also examines a "road not taken" by thinkers. By following a mysterious "sign-notion," abandoned in early modern times in favor of the "way of ideas," he achieves a profound insight into the skeleton of the entirety of human thought.

Keywords: sign-notion; idea; pragmaticism Peirce; Poinsot; Bulgaria.

> "Where have you been?"
> "Writing a book."
> "What about?"
> "The history of philosophy."
> "Hasn't that already been written?"
> "Not so ... Besides, I have an angle."
> —Deely (2001: ix)

"Then perhaps I shall have to read your book," the lady goes on. This common sense conversation at the opening of the thousand-page "first postmodern survey of philosophy from ancient times to the turn of the twenty-first century" has to convince the reader of the worthiness of reading the monstrous book. A modest motivation versus enormous ambition

to embrace the entire history of philosophy from a single point of view. Has it succeeded?

1. How to ask

The main difficulty is how to ask a question on thinking/reasoning. What position can one take when asking such a question? We cannot step outside of or apart from thought and take an "objective" look at it. When thinking of thought, we think in thoughts, so how can one see this process, as it were, from outside? The historical solution is simple: put a measuring instrument in the middle of the unknown phenomenon (thought) and start measuring. It works or, at least, we have to be satisfied with the results. (Where is "the middle," by the way, in this case?) The whole of human knowledge is based on this approach. There is no alternative. What precedes the appearance of thought is an unproductive question. John Deely is not only aware of this, but he "steps in the middle," claiming:

Well if, as a matter of fact, all history is contemporary history, just as all sunshine is today's sunshine, yet, which of the countless rays of the sun's light actually fall on us depends on where we stand in time and space. (Deely 2001: xxix)

We shall keep in mind that this thought is placed below a title of the preface, a title that says "The boundary of time." For Deely, this boundary stretches throughout our own time, which is each individual's "present" one. Strange that this characteristic is called a "broader notion." It seems the opposite, isn't it? Further in the book there are terms like: *reality, perception, thinking, sensation*, and many others, which are subjects of the same intellectual operation: first, they are put in a new framework, and then "broadened." The reader is struck by a similarly odd claim at the very beginning of the book: "Communication, however, is not language, although language can be *used* to communicate" (Deely 2001: 5). It is interesting how such a grandly conceived plan starts to unfold: What general idea would be the leading one? How will it be pursued? How will it be challenged and examined to be proved true or false?

Deely's approach seems traditional at first glance: he reasons about philosophy and its task throughout the centuries, underlines its achievements, and promises to stick to the mainstream. Not quite. The usage of Peirce at the very opening of the book hints at another objective — to follow the middle-of-the-road, yes — but mainly in order to arrive by many points, *ad absurdum*, and naturally to claim, somewhere toward the end

of his work, that there was "The road not taken." Such an approach is much more "reader-friendly," as today's youngsters may notice, and for good ("Who reads these days?" is a question we will not get into, but we cannot pass by).

Let us see what Peirce had to say about the task Deely undertakes:

The humanists were weak thinkers. Some of them no doubt might have been trained to be strong thinkers; but they had no severe training in thought. All their energies went to writing a classical language and an artistic style of expression. They went to the ancients for their philosophy; and mostly took up the three easiest of the ancient sects of philosophy, Epicureanism, Stoicism, and Scepticism. (*CP* 1.18)

Shall we proceed further? Why not? The best way would be to follow Peirce's "advice," i.e., to take up the three "recommended" sects of philosophy.

But what patterns did Deely follow in order to reveal his own theory? Several, but the first one is hidden in the last word from the previous sentence — he has a conception on the wholeness of the thought-process throughout the four ages. The person who helped him in building it is . . . Peirce. Like a "thin red line," Peirce's thought, his assessment, his ideas are brought together in a secret mirror that throws back ("speculates," in the Latin sense, i.e., "reflects") others' ideas. It is moved by Deely's hand and sheds shafts of light towards outlined doctrines. In addition, Deely has a profound Thomistic training, whence his showcasing of the work of Poinsot, and his loyalty to the sign-idea. Not a few privileges were needed to undertake a Herculean deed like this!

Reading Deely resembles reading Eco, but from the reverse side, like *The name of the rose* in a doctrinal format. Deely is at his best here, and can hardly hold back his thirst for storytelling. The plentiful titles and subtitles, notes, inserted explanations, even non-language communication like the many prompts to the reader to take a profound look at something, suggestions how to read some texts and how others, what would be the ordinary way of grasping some terms and what not — all of this is something we expect from a book like this. But step by step we understand that these lavish accompanying words and notes have another role: stage by stage to clarify the author's full concept of the work.

2. When philosophy meant "how to act"

Many chapters have names that sound like they were taken from a novel, for example, "The geography of the Latin age" (2001: 161), where Deely

speaks, among other things, of *Constantinople*. Why is this chapter interesting? One answer might be because Deely is particularly good at interpreting the transition periods in history and philosophy. There are two nicely put subheadings in this chapter: "Back to the future: The first Christian emperor," and "Foreward to the past: The last Pagan emperor." There is not a word on philosophy in these small subsections, but stories about historical events and documents set up as in a medieval monk's manuscript. Stories about battles won and lost, slaughters of men, punishments for religious reasons, failures and glories, births of new saints and deaths of old gods. Deely is describing how the world of the Greek culture came to be severed from the one of the new Latin age, where Christianity was to achieve its full glory. The move of Rome to Constantinople was at the same time the final separation of the East from the West. We may argue whether this separation had philosophical meaning or not, but we cannot deny that the knowledge of ancient Greek thought was first lost during this transition period. What had used to be East (India and China) then became a sign of the Greek people, and the West meant no longer Judaism, Christianity, and Islam, but the Latin-speaking peoples of the old Roman Empire. A few centuries later, the times of the so-called "Dark ages," which Deely prefers to call "Latin Age," will arrive. We may rightfully think along with Deely's unspoken conclusion that the separation and replacing of East and West continues today.

Yet another giant separation took place: the East-West Schism divided early Medieval Christianity into Western (Latin) and Eastern (Greek) branches, which later became the Roman Catholic Church and the Eastern Orthodox Church, respectively. Although dated at 1054, the schism was actually the result of an extended period of estrangement between Latin and Greek Christendom. The primary causes of the Schism were disputes over papal authority — Pope Leo IX claimed he held authority over the four Eastern patriarchs and over the insertion of the "filioque" clause into the Nicene Creed by the Western Church. Disunion in the Roman Empire further contributed to disunion in the Church. Theodosius the Great, who died in 395, was the last Emperor to rule over a united Roman Empire. After his death, his territory was divided into western and eastern halves, each under its own Emperor. By the end of the fifth century, the Western Roman Empire had been overrun by the Germanic tribes, while the Eastern Roman Empire (known also as the Byzantine Empire) continued to thrive. Thus, the political unity of the Roman Empire was the first to fall. Another big stream of tribes came from Far Asia and mingled with the local indigenous peoples settled around bigger Greek cities such as Thessalonica and Athens.

Many other factors caused the East and West to drift further apart. The dominant language of the West was Latin, while that of the East was Greek. The Germanic tribes regularly attacked what was the remnant of Roman Empire, the tribes from Asia and the Slavs were doing the same with the Greek cities. Soon after the fall of the Western Empire, the number of individuals who spoke both Latin and Greek began to dwindle, and communication between East and West grew much more difficult. With linguistic unity gone, cultural unity began to crumble as well. The two halves of the Church were naturally divided along similar lines; they developed different rites and had different approaches to religious doctrines. Although the Great Schism was still centuries away, its outlines were already perceptible.

It would be valuable to trace the changes in the philosophies, or rather in the theologies, which were developed within the two confessions. Philosophy was still embedded in theology, especially in the Eastern Church, but the clichés about its development in these times only considers the Western church. Deely's interpretation makes no exclusion. For example, besides the differences there are coincidences as well — in big parts of both worlds, the Roman and the Orthodox one, a long night of foreign invasion had soon fallen — first, the Arabs in the Iberian Peninsula at the beginning of the eighth century; some centuries later, before Vienna's wall — the Ottoman Turks. Thus, the age of magnificence faded quickly, and years of grief and sorrow colored the pearls of wisdom put to the amber rosary of the existing Western and Eastern philosophy.

This was not the entire truth for Iberian peoples. Many centuries under the Arabs deepened and enriched Iberian culture and philosophy, while upon their coming across the Mediterranean, in Southeastern Europe, the Ottoman Turks had found a much more advanced civilization, the promising development of which they virtually froze. The invasion had interrupted the process of attaining and collecting knowledge, which was long under way. Thus, the Western line continued in rapidly sprouting universities, mainly in the Latin language, while what happened to the East, next to the borders of the Great Byzantine Empire, remained a mystery. The passage above shows how Deely is telling the stories, and the one below may hint at similar processes, which are constantly missing from the archives of the Western chronicles. Let's try to undrape a little the curtain before them.

3.   Rome, Constantinople, and . . .

In the ninth century, the two learned brothers of Thessalonica, Cyril and Methodius, had devised an alphabet[1] and undertaken the translation of

many fundamental Christian texts for Slavic groups living in Central Europe. Although their work there was eventually obliterated by invading Magyar hordes, their disciples managed to escape to Bulgaria. During this period, Bulgaria was a prosperous medieval state that won great victories over its glorious neighbors (Byzantium), expanded its territory, and garnered much respect. From those times, the rule of Khan Krum (803–814) is to be remembered. Under him, Bulgaria became the third greatest power in Europe after Byzantium and the Frankish Empire. One of the oldest states in Europe, Bulgaria had its time of glory when it challenged the great Byzantine Empire and obtained tribute from it. In 865, after complicated diplomatic negotiations, the Bulgarian king, Boris I, accepted Christianity from the Eastern Orthodox Church in Constantinople.

At the court of King Boris, and especially of his son, the learned Symeon, Cyril and Methodius' disciples found a warm welcome. Literature in Old Church Slavonic (or Old Bulgarian, as it is usually called in Bulgaria), much of it translations from the Greek but with some important original works as well, flourished in what has come to be known as the "Golden age of Bulgarian culture" from 893 to 927 in the time of Czar Simeon. He was the first to obtain the title "Czar" (a son of the emperor) in 913, more than half a millennium before the Russian Czars. Czar Simeon twice besieged Constantinople, and defeated the Byzantines at Aheloi in 917. During his reign Bulgarian literature became the first medieval European literature written in the vernacular. In the court of the new capital of Veliki ("Great") Preslav the king gathered many monks who continuously copied out old manuscripts, illuminated holy books, composed poems, and wrote saints' lives.

This ecclesiastical literature spread far and wide, reaching Serbia, Romania, and Russia, and helped for the consolidation of Slavdom in the tenth century. Other arts flourished as well, such as icon painting in the rich Orthodox tradition, carving wooden altars, producing and decorating pottery, mural painting, etc. A number of monasteries, including the Rila monastery were founded during that period. The great contemporary Russian scholar Dmitrii Lihachov called the epoch of the brothers Cyril and Methodius down to the fall of the Second Bulgarian state in 1393 "a kingdom of the spirit." Recent Slavic scholars refer to this time as Preslav Bulgaria. Despite some setbacks occasioned by the restoration of Byzantine power in the eleventh and twelfth centuries, medieval Bulgaria remained a culturally productive society until the very end of the fourteenth century. The frescoes of the small church of Bojana outside Sofia, painted in 1259, the magnificent illuminated Gospel manuscript commissioned by Tsar Ivan Alexander in 1355 (and now in the British

Museum in London), and the profound and enduring impact of Bulgaria on Russian culture, which can still be felt today, all bear witness to the achievements of old Bulgarian artists and scribes.

Unfortunately, at the very end of the fourteenth century heavily armed Ottoman hordes attacked the quarreling Bulgarian kings. In 1393, the last Bulgarian tsar Ivan Šišman was defeated near his grand capital of Tarnava. During the long years under Ottoman rule Bulgarians did not build new cities, palaces or libraries. Their promising literature withdrew into churches and monasteries, behind whose stone walls some of Bulgaria's art was preserved and prepared for a much-delayed Revival. Many churches were destroyed by the Ottomans, and only a few of the remote monasteries survived. They turned into something very much like hidden wine barrels, where Bulgarian national awareness could ferment. The monks took care of the surviving religious books, copied, and hid them. Inside the monasteries' walls spiritual life may have been disturbed, but it did not die out. Services were held, prayers were offered up, and ancient songs were sung. Other clergymen worked as teachers at early monastic schools, and this is how education in the East started. The same happened to the greater part of Eastern Europe, including what was then Serbia, Romania, and fractions of ancient Greece — for example, in the precious monastic complex of Mouth Athos. Accordingly, all of Eastern Europe's rich literature, philosophy, and theology became imbued with the atmosphere of monastic life. Another characteristic that can be given to what was spiritually created in the bosom of the Orthodox is a culture of resistance. During the long shadow of Ottoman invasion the monks did not write new manuscripts, but they kept what was already created. The old books played their allotted role in transmitting the national spirit through the centuries. An essentially different civilization, that of the Eastern Europe's Middle ages, was being preserved within the framework of the alien Islamic doctrine.

If we ask ourselves why Deely is discussing this issue at length (and we did the same with the ''missing part'' in short), the immediate answer should be that he sees giant gestures, such as the takeover of Christianity as a meaningful act — in other words, the author is persistent in his semiotic approach, for which the road taken (or, not taken) plays a great role. The slow integration of pagan tribes and peoples into Christianity is for Deely *philosophy in action*, and the same with the theology of these times of which he also writes insightfully. The method Deely applies here is, undoubtedly, the pragmaticistic one. Exactly here, in this part of his book, mentioning the last Emperor to rule over a united Roman Empire, Theodosius the Great, Deely makes a significant point. In Deely (2001: 179, note 37; how the author decided which text to put in a footnote, and

which in the main body, is not clear; it doesn't seem that there is any solid criterion), the author explains one of the earliest recorded use of the term "triad," which plays a central role further on in the book. It is for theosophical usage only, but still, we shall mention that, after telling another story of Theodoric, who became a king of the Ostrogoths, Deely concludes in yet another footnote that "... the death of the learned figure of Boethius is made to stand as a symbol and synecdoche for the loss of access to the past in its Greek form" (2001: 182, note 42). It is not just a fancy linguistic figure that the diving into the so-called Dark Ages brought to life the tradition of liberal arts education in the West. We tried to see what kind of education was born during the same age in the East. Deely makes only passing mention of this, saying that "Indeed, much of the art, theology, and religious orientation of the Byzantine civilization in fact survives, in Russia and in the Slavic cultures" (Deely 2001: 205). Well, in Russia, yes, some centuries after it existed in some "Slavic (not only) cultures."

4.   Fixed or progressing meaning

The heavy structure of Deely's theory of the *Four ages of understanding* stands on three (surprise) powerful conceptions. They are outlined at the corresponding places, but are also repeated frequently in the course of the book. These are, first, his understanding of the history of philosophy as *today's history of philosophy*, meaning, that we actually make the history of philosophy while writing about it (similarly to Hegel's understanding of teaching philosophy); second, his favor of *the triadic, rather than a dyadic, way of thinking*, which we will clarify further on; and third, his *conceptualization* of all that has been revealed as a fact from the history of thought. On these three giant pedestals or pillars Deely constructs his view of what was, what could be, and what turned out to become the mainstream of human thinking in the major eras of philosophy's development. This is how he structures his "grand narrative" of the Occidental and some other civilizations. The first of those three "pillars" we have already discussed at some length. Let us see what the other two look like.

In a microscopic chapter entitled "Language and the ages of understanding," Deely unveils one of his most general points of view, claiming:

I have in mind the fact that the major changes in philosophical epochs happen to correspond in general with the major changes in Western civilization: the natural

macro-units for the study of philosophy would appear to be the major changes in the situation of the natural languages. (Deely 2001: 210)

Deely clearly sees the mechanisms of linguistic difference and change as they occur within the framework of philosophy. This double-view of the semiotician allows Deely to see history as a result of thought, *a thought in action*, and philosophy as *ideas in progress* or as progressing meaning. That is his way to reprise the reality of ideas, on which he talks at length. In the same brief chapter, when talking on the postmodern times, Deely says: "This movement, the postmodern development, is coming to be based especially in the work of the American philosopher Charles Sanders Peirce" with its leading premises that "the highest grade of reality is only reached by signs" (Deely 2001: 211). This last notion of Peirce is going to play a much larger role in Deely's view on the history of philosophy.

The sign-notion as a key for understanding the entirety of thought processes reappears in the chapter on Augustine of Hippo, where Deely was struck by the discovery that "the idea of *sign* as a general notion, which we today take more or less for granted, did not exist before the fourth century AD, when it appeared in the Latin language as a proposal of Augustine" (Deely 2001: 215). Here and a few pages further, Deely talks on the sign at some length for the first time in his work. At this miniature place he manages to put so much on the notion of sign that it amazes the reader — in fact all major figures of semiotics are mentioned here, from Aquinas to Locke and Peirce, then back to the beginning — from the Greeks to Umberto Eco — we have a full range of a microscopic semiotics. Then why was a thousand-page book needed on the same matter? Our small suggestion is based on a half sentence by Deely: The whole idea of philosophy, "was born in the attempt to discern reality" (Deely 2001: 217). In order to understand Deely's second pillar, on which he places his giant thesis on philosophy, we have to keep in mind this ratiocination and trace it as it unfolds in the book. We have to be very patient, though, for soon after making some steps towards relating the philosophical concept to semiotics, Deely turns back (and does this many times afterwards) to a theosophical interpretation. For him the origin of the idea of sign clearly lays in Christian doctrines. He is not far from saying so, but the fact that the notion of the natural sign had been long forgotten among the early Christian authors prevents him from such a claim. Instead, Deely finds out "a very curious thing": "Augustine has begun by enunciating in its full scope a semiotic point of view" (Deely 2001: 221). We'll see further that same assertion will be made about John Poinsot, and then about many modern theologists.

5.   Thinking of our own thinking

We now need to take a slightly different route in order to catch Deely's way of reasoning later on the road "not taken." Thinking of one's own thinking is not a favorable job, even for philosophers. It seems natural for humans, unnatural for animals, and that is all. Hypotheses are used to explain the patterns of thinking, instead of the flow of thinking in different patterns. The usual approach is to attribute sense to phenomena, rather than to study them "as they are." As for sense, it is indisputably at hand. This has been the way undertaken by philosophers over centuries. For example, let's recall how John Locke opens his study in *An essay concerning human understanding*: "The understanding like the eye, whilst it makes us see and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance and make it its own object" (Locke 1964: 63). Amazing that "it requires art and pains" to start the process of understanding our own understanding. It takes no pains or art to replace synonymously "thinking" and "understanding" in order to achieve some progress on both fronts.

The above reasoning sounds merely provocative; it only aims to show that asking a question on thinking/understanding is questionable. We need to start from a beginning, but what beginning? How can one find a basis for building a new hypothesis — invariable, durable, fundamental? For reconsidering thinking, we need: first, a starting point; second, something stable and repeatable in time; and third, a philosophy to serve as a window. (One of the many feelings accompanying reading Deely's book is the secret hope that this window will turn out to be an open door to the matter.) What is certain, solid, and unquestionable on this topic is that nothing is certain, solid, and unquestionable on this topic. Well, this might be for good. Let's rush to the movable sands, who know what treasures are buried there. Would it not be intriguing to consider Deely's book under the synecdoche of "movable sands," and see what this linguistic figure brings to its understanding?

Following the fact that we are living creatures, we may say that we posses some mental abilities, among them the ability to produce thoughts. Afterwards, we invent philosophical categories; we argue or agree with them, reduce or multiply them. We think, or we think that we think. Safer is to say that we believe we think — no one doubts this. We "feel" we produce meaning. This is still more doubtful. But who is going to argue with this seriously? Meaning and understanding are changeable, variable, and different for everyone. This is similar to thinking itself. However, there is a permanent need to reconsider the fundaments of the thinking process. Here is Locke again: "Every step the mind takes in its progress

towards Knowledge makes some discovery, which is not only new, but the best too, for the time at least" ("The Epistle to the reader," 1994: 55). But what is knowledge, considered historically, or considered theoretically? Knowing who had founded the discipline "structural anthropology" some time ago was accepted as knowledge. Is it now, when every eight-year old could check it on the Internet? Or, the same question asked from the reversed side: In his *An introduction to logic and scientific method*, published for the first time in 1934, Morris R. Cohen (the same one who first published in 1923 a posthumous collection of essays by Peirce) states the fact that "... the word 'sociology' was invented by August Comte as a name for the study of human relations in organized group life, and other writers have chosen to follow him" (Cohen and Nagel 1947: 118). Was this discovery not a deed in the times before "Wikipedia"? What strategy did Deely chose in approaching such a general view on knowledge? Let us count what we have up to now: he has acontemporary understanding of past and present; according to him, the turning point of thought-development was the shift from the way of ideas to the way of signs; he has a deep and profound view on theosophical treasures of thought, preserved in monastic libraries; Deely is also well-versed in Thomism, John Poinsot, and Iberian philosophy, to mention only the rarer among the schools. Besides, Deely is in many respects a pragmaticist: this can be seen, for example, in his numerous insistences that ideas have to be clarified. But his strongest side as pragmaticist is his obvious regret that human thought shifted from the "way of sign" to "the way of ideas" as the Latin Age gave way to modernity.

Deely likes the expression *purely objective* as it applies reality, especially to relations, as in the *Four ages*. In a chapter section titled "Purely objective relations," he undertakes the task of outlining the development of medieval logic considered to be "a science of relations obtaining among things *as they are thought of*, as distinct from things (and relations among things) as they are in themselves indifferent to human thought" (Deely 2001: 229). It is noteworthy to point out this place, because it is one of the very few where Deely deals with the "constant" part of his dynamic clarification. It seems that what is constantly missing in Deely's "relatum" explanations in general is a profound elaboration on the "stable element" of the triadic thinking, the one which, in Aristotle's definition of "definition," refers to the thing's essence, the set of fundamental attributes that are the necessary and sufficient conditions for any concrete thing to be a thing of that type. In Peirce's semeiotic doctrine (rather, in his early writings), this essence would be "the ground" (see Deely's Index entry on this point, 2001: 900–903, esp. "sense").

According to Charles Peirce's evolutionary cosmology, the creation of universe (but also, of meaning, in general) passes through three phases: "*tychistic*" (spontaneous), "*synechistic*" (durable) and "*agapistic*" (sympathetic). The question is, is there something stable, something that never changes? Are there some principles that precede thought-action and serve as frames in which the new thoughts appear? Humankind has failed to produce something of extreme novelty on this issue. In order to illustrate the importance of the notion of the "missing stable," we must see what was it in Deely's treatment? Again in a footnote (why are we constantly finding the most important notions in the footnotes?), we can read Deely's remark against Gèrard Deledalle's opinion of an exclusively relational character of treating reality, where a ground could be found, according to Deledalle, within sign-action only. Deely objects correctly: "But in speaking thus he shows once again the incapacity of late-modern idealism to realize the distinctive perspective of the doctrine of signs as no longer tied to either side of the old *ens reale/ens rationis* distinction" (2001: 253–254, note 10). Here and elsewhere, Deely is smoothly developing his concept of the "way of signs" even in the deepest theological dogma. He is at his best while interpreting *On interpretation* of Thomas Aquinas:

Sensible objects at first seem to be but things; but, as we learn more and more of their connections with other objects, both in the world of nature and in the world of culture, these objects become more and more significant. But the ideas in the mind by which we think these objects, the thoughts by which we say how things appear to us and to be apart from us, these are signs from the beginning. (Deely 2001: 337)

The key issue again is the sign domination over ideas treatment. What does this really mean? In what way is the sign so different from the idea? Why does the *sign-notion* dominate the *idea* one? This is the utmost point in Deely's exploration of thought-development. It is obviously his main discovery with regard to the entire thought-development. And I am not quite sure that I am fully confident in what he meant by *shifting from the way of signs to the way of ideas*. He made such a claim at the opening of his work: "If there is one notion that is central to the emerging postmodern consciousness, that notion is the notion of sign" (2001: xxx). It almost acts as a general motive for writing the whole book, as we can see from the next sentence: "And for understanding this notion, nothing is more essential than a new history of philosophy." Still, I need more perspectives on this matter, but I have no doubts that I will find some. After all, we are not dealing with a book but with a cosmos. In order to furnish the

insufficient angles, we'll do the same as before — we'll begin with our own way of reflecting on the same matter, confront it with Deely's, and see if the outcome will fit with his view. Then, to stay in the pragmaticistic spirit, we'll sum up our mistakes, and readjust the approaches. We hope to be more successful each time we repeat the procedure.

6.   Warm and cool

Thinking is associative, imaginative, intentional; or free drifting, purposeless; or disciplinary, forced: it cannot be exhausted by any generalizations. Thought categories limit thinking's creativeness or cut its characters. Thinking is immaterial, unlimited, and beyond any classifications.

   Philosophers are aware of the sharp demarcation line between the "warm" senses of our organism and the "cool" objects of the outside reality, which usually lead them to an infinite regressive dualism. How can one grasp the phenomena outside of us "objectively," i.e., independently and outside of our perceptions, while we have at our disposal no sense that is independent and outside of us? There is a famous statement of Peirce in this regard.

A figment is a product of somebody's imagination; it has such characters as his thought impresses upon it. That those characters are independent of how you or I think is an external reality. There are, however, phenomena within our own minds, dependent upon our thought, which are at the same time real in the sense that we really think them. But though their characters depend on how we think, they do not depend on what we think those characters to be. . . . Thus we may define the real as that whose characters are independent of what anybody may think them to be. (*CP* 5.405)

For Peirce, the external reality is something that does not call for a proving of its existence. This statement is from a late period of his work, when he accepts that thinking is "real," i.e., that it falls under his category of Thirdness, the area of endless interpretation. Even phenomena "within our minds" are "real" to the extent that they are thinkable. Moreover, someone's dream is "real" because it is fact, which is "seen," that is; it means something for this individual. The statement about the "real" is that whose characters do not need to be thought by anyone. The logical conclusion sounds quite odd; if the "reality" is independent of what anyone may think of it, it cannot be known. Actually, this is one of those ill-stated syllogisms that seem perfectly well built but in fact are ill-built even though perfectly well stated.

The reality is inexhaustible by any thought-process, so it is at once knowable but not known. It is a matter of unlimited interpretation. Peirce himself hints to such a conclusion by saying that the character of some phenomena ''depend on how we think'' although ''they do not depend on what we think those characters to be.'' Thinking can change reality's character for us, not for the reality, although thinking of its character alters the subject matter of ''reality'' within our minds. The external reality is ''cool,'' that is, it is insensitive towards our thoughts of it. We could assign all kind of characters to it, but we cannot be certain that any of those are really characteristic of it.

These considerations do not explain the fact that thinking produces meaning, and meaning evokes understanding/misunderstanding. The question of meaning is illuminated from many different perspectives: How it originated? How is meaning possible? What is meaning? Where does it reside? What is a meaning-carrier? Is it organic only? Other sets of questions excel with the new findings: What is the nature of ''memes'' (the fields of memory)? How are connections between them established? Is it immaterial? Are genes alone the substance of meaning? How much meaning is assigned to mental phenomena? Of what kind is the relationship between thinking and understanding? Do we understand in what was expressed, what was thought or is there always something (left) beyond understanding? And if so, what?

Less frequently asked is the following question: How do we know that something called by us ''meaning'' is meaning? Does it arise within the thinking process, or is it always ''there'' (somewhere in the organism), and we only reveal it step by step, removing the upper layer, as it were? Are we ''inside'' or ''outside'' meaning? (Peirce would choose ''inside''). Why do we think that we ''produce'' meaning? What kind of a product is this? How do we know that it is not an illusion?

Meaning varies in time and age, in different geographic areas, in individuals. Then how do we know what is meaningful and what is not? The same questions can be asked from the reverse: Is there something general in any sense-producing process? If there is not, how is it possible to understand each other? Peirce's answer to this is that there is something general in any sign. There must be a sense, common to all individuals who communicate. There must be an unchangeable level of meaning, one that lasts in time and guarantees understanding. On the other hand, the sense, which is produced even within the same *relata* changes with an accelerating dynamics, and a completely new one periodically appears. This is due to the process of accumulating knowledge. Knowledge alters, and continues as well. What refreshingly new has Deely to say on all these questions? In order to comprehend this, I would suggest taking a look at

a pragmatist definition by Peirce, but the one that is rarely quoted: "If pragmatism is the doctrine that every conception is a conception of conceivable practical effects, it makes conception reach far beyond the practical. It allows any flight of imagination, provided this imagination ultimately alights upon a possible practical effect" (*CP* 5.196).

I like this version of the definition more than the most famous one of the pragmatic maxim. It allows "the flight of imagination" to obtain an almost categorial status. And exactly here is the moment to see the turning point of Deely's hypothesis on the general path of knowledge. It is placed in a chapter section called "The end of the story in Latin times and its opening to the future." As we can see, it is again a passage on a transitional period. It starts with the following statement:

> The story of medieval semiotics, in sum, opens with the positing of the first notion of "sign" in the contemporary sense, made by Augustine in the fifth century. The story develops through a complex and rich discussion of the foundational notions involved therein. This development reaches its highest point in Poinsot's resolution of the main problem raised by Augustine's notion of sign: the problem of how there can be a being common to signs as involved in natural phenomena and signs as involved in the phenomena proper to culture. (Deely 2001: 443)

That is that. The clouds begin to part. Deely wrote a book on how sign becomes general to embrace characters of both reality and human thought. A new set of questions arise. The first one: If the understanding of this process is so simple, why hasn't it been followed? The first complicated answer — where is the watershed between human culture and nature? An entire new book can start from here and, in my opinion, it starts with the already mentioned key chapter, "The road not taken." The slightly melodramatic tones signal the beginning of a story of a new development that is not favored by the author. We are not going to discuss the Cartesian era, Poinsot's vindication of the Augustinian proposal of sign in general "from the charge of nominalism" (2001: 448). The essence of this and several smaller sections with Deely's chapters that follow is the loss of the integral understanding of "signum" as a unifying theme, providing a more complete view to the world of thought. But we are already in the modern times and, as Deely says, "Peirce would resume this point under a clearer terminology: every sign, in order to function as a sign, requires an object and an interpretant, and hence consists in a triadic relation" (2001: 464).

What remains to be clarified is the question of the relationship between reasoning and reality. Straight, would be the immediate answer. Reality is an area of endless meaning. If we cannot grasp it as an observable

phenomenon but as a process of interpretation, we have to say that we live in a permanent endeavor toward approaching it. This conclusion confirms the "pragmatic maxim": that our lives are based on committing mistakes, considering their effects upon our knowledge of the world, appropriating our actions accordingly, and performing new mistakes. Do we really live in the world of pragmatism, where we call the nominalist effects "knowledge"? Let's give a detailed quotation by Peirce on the same subject matter:

It seems to me that one of the first useful steps toward a science of semeiotic ({sémeiötiké}), or the cenoscopic science of signs, must be the accurate definition, or logical analysis, of the concepts of the science.

I define a Sign as anything which on the one hand is so determined by an Object and on the other hand so determines an idea in a person's mind, that this latter determination, which I term the Interpretant of the sign, is thereby mediately determined by that Object. A sign, therefore, has a triadic relation to its Object and to its Interpretant. (*CP* 8.343)

Now we can reformulate the same questions in pragmatic perspective: How much conceivable reason is needed to be furnished in the process of conceivably reasoning for outlining thinking as a process that can be revealed?

7.   Conceptualizing the four ages of thought

We are now approaching the last encountered "pillar" for the structure of Deely's book — his conceptualism. It is not the classical one, as stated by John of Salisbury: "the mind recognizes the same or similar characteristics in different individual objects and conveniently gathers these differences into one mental concept or idea, which provides the meaning for the universal or general term, the spoken sound or written character string with which the concept is then associated" (Salisbury in Deely 2001: 246).

Deely's conceptualism is an analytical tool for deriving meaning from coded and unfinished philosophical concepts frozen into remote comparisons. It is applicable to any doctrine, notion or proposition. In this regard, conceptualizing is to be understood in two senses: first, it is an attempt to reveal the unexplored meaning in some of the abandoned notions; second, it might be used as a general device for different goals. One of the worthiest contributions of Deely is made in his conceptualized thought as expressed in Peirce, but also in Aquinas, Scotus, the Conim-

bricenses, Poinsot, and others who have argued that "All thought is in signs." For better understanding this operation, we have actually to point to the main difference between the sign notion and the ideas notion. Favoring the first allows to Deely not to see the thought-findings as precious but static statues in a giant park. He prefers to animate them by letting them produce new meanings in new contexts. In other words, "the way of signs" fits better to conceptualism as well; concepts are similar to microscopic schemes or plans for acting. A thought represents a sequence of such scheme-concepts for acting made permanently by our minds. The scheme-concepts are built in an expanded present moment, with the help of the immediate past (our experience), and are pointing towards next moment. This short elaboration supports the need of a new definition of present, as Deely demands. Of course, thinking is always based on the past and it seeks meaning collected in ideas, which is not a contradiction to Deely's favoring of sign-notion. The present is the absolute "First," something that is unrelated and incomparable to anything else. We cannot be conscious of the immediate present; it is unimaginable. The instant is a flash to a present moment and a freezing of all signs in it. Any awareness or understanding of these signs requires interpreting and relating them to others. In its turn, "relating" is possible to the past. The present is unknowable and the future is inexhaustible. The very fine difference that Peirce draws between the impossible awareness of the present and its quality as a present allows him to use by this definition one of his categories, Firstness:

The immediate present, could we seize it, would have no character but its Firstness. Not that I mean to say that immediate consciousness (a pure fiction, by the way), would be Firstness, but that the quality of what we are immediately conscious of, which is no fiction, is Firstness. But we constantly predict what is to be. Now what is to be, according to our conception of it, can never become wholly past. In general, we may say that meanings are inexhaustible. (*CP* 1.343)

The inexhaustibility of the future makes it so that the future cannot be fully turned into a past experience. This is what feeds our illusion that it is achievable.

To reach our conclusion of the present discussion, we'll return to the main point of sign-notion as abandoned on behalf of the way of ideas, and see if we have reached, along with the author, a new stage of clarity. Deely furnishes much meaning for revealing his major claim while he is still reflecting on the Latin age of understanding. It turns out that in the bosom of the Hispanic Latin tradition this shift would not occur. According to Deely, in this tradition the distinction between *representation*,

where an object can present itself; and *signification*, where an object or a concept can only present something other than itself, was thematically maintained. Deely states: ''In equating ideas with objects represented, here, at the very beginning of modern thought, the late Latin notion of concepts as formal signs in the tradition of Aquinas and Poinsot is rendered impossible'' (Deely 2001: 520). There was another attempt to outline the signification process as triadic, not dyadic, made by John Locke. He strangely failed, although reading his *Essay* the reader gets the impression that it is the triadic thinking that Locke favors. In book three, chapter one of his famous *Essay*, Locke clearly sees words as signs of ideas, but further it gets even clearer that for him signs ''self-evidently signify ideas,'' meaning that ''words by use readily excite ideas'' (Locke 1964: 261). This is to say that words *directly* evoke ideas, *unmediated* necessarily by signs, or (which is the same) words are equal to signs. Instead of calling this a triadic model, one might call it a concatenation of two dyadic models. In other words, Locke speaks of two dyadic signs, the one ''word-idea,'' and the next one ''idea-thing,'' making altogether a relationship of two dyadic signs. (''Things'' cannot be directly referred by words, but mediated by ideas only).

Whatever the case is, the final shift, according to Deely, occurs in the following point: ''If the doctrine of signs was correct in assimilating to the notion of *signum* to ideas as well as words and natural phenomena — *if*, I say — then Descartes with his theory of ideas is on a wrong track, and so is the whole of rationalism after him in maintaining the representative theory of ideas'' (Deely 2001: 520).

This must be clear enough, and we must be given the clue to the shift that occurred between the way of sign and the way of ideas. Further, ideas ''are what they are and remain such regardless of philosophical theory,'' says Deely. Signs, in turn, must be more flexible and possess more potency for referring to and embracing meaning that is inexhaustible by any interpretation. Signs change and vary as does meaning; ideas *stay* and pretend to teach us. And one more thing — quite important:

Yet ideas or images are required only to supply presence for an object otherwise absent, or to supply the proportion between what is perceived and what is sensed. Neither of these reasons for supposing an image at work within cognition apply to the case of external sensation. Hence, the supposition of images in the case of external sense is gratuitous, simply without warrant. (Deely 2001: 531)

The missing ''Third'' is at stake here, the inability of ''idea-notion'' to ''catch up'' with outside reality (objects as they are), to signify, or to refer to it. That is how the entire machinery turns into an ''idea-idea'' or,

which is the same, a "sign-sign" tool that cannot supply knowledge which grows and changes. To the end of his *opus magnum* Deely makes one more clarification to drive away any obscurity from what he thinks was the major mistake in thought progress: "I conclude that the notion of sign-function is not an adequate — let alone necessary — substitute for the classical notion of *signum*, precisely inasmuch as the classical notion was proposed as a genus to which significant natural and cultural phenomena *alike* are species" (Deely 2001: 719).

It is now clearer, which would be the closest answer to the question — why read Deely's book? — to enable the reader to see through the enormous human flesh of thought its schematic skeleton. To grasp the major tendencies as they start and develop, "crash to earth," and rise again in a new brilliancy. To choose accurately and then more accurately.

8. Laudation

The first recommendation to the reader of this book should be not to take any advice by the author himself how to read it. This is all only misguiding advice, like, for example, that the reader can jump over some sections that are not of interest. I tried — nothing happened, I felt like I was surfing for online information, after whose use nothing remained in my mind. It is a fully conceptualized work, from the beginning to the end, a whole thing. But then, how to assess, appreciate or criticize such a book? One thing would be surely useless — to quote authors in order to beat Deely. That is an impossible undertaking. In the monstrous Index at the end so many authors are listed that the book resembles a universe for itself. I have to admit, though, that I could not cope with the index; it simply has the value of a separate book, like the accompanying booklets of the major scripts of Eco. The Index even has its own sections, not all of them found in the main body of text. It is rather confusing and not helpful if the reader decides to find a notion or an author in it mentioned in the book. In addition, there are the numerous footnotes, as already pointed out. On the other hand, books like this have to compete with giant encyclopedias and dictionaries, which are mostly online. And I am not sure that it is not a competition lost long ago. In order to check a reference, or to check for date of some event, one will not browse through countless pages but simply go to Internet.

So, I will spare my overall laudation for Deely's work. One cannot praise (even less, criticize) a river for its streams, feeders, creeks, floods, and large mouth. One is simply struck by its glorious Being. But let's recall the synecdoche of some book's fundaments as grounded in movable

sands. In "movable sands" some philosophers build precious castles with tall towers in the clouds, illustrious facades, pillars, rotundas, fountains, sculptures, beautiful parks, etc. Others prefer "to erect a philosophical edifice that shall outlast the vicissitudes of time ... not so much to set each brick with nicest accuracy, as to lay the foundations deep and massive" (*CP* 1.1). Still others, especially in modern times, are making computer models that prove their soundness and reliability before being built in reality. John Deely tries to avoid movable sands by designing parts of the basics of his book movable, flexible, adjustable, and self-correcting. A worthy task, although a very difficult one.

I would like to conclude this article by emulating Deely's style. Here is my attempt. After Albert Einstein (1879–1955), Max Plank (1858–1947), Ernest Rutherford (1871–1937), Wolfgang Ernst Pauli (1900–1958), Niels Bohr (1885–1962), Max Born (1882–1970), Werner Karl Heisenberg (1901–1976), and Kurt Gödel (1906–1978), the world learned terms like "general theory of relativity," "dimensionless constant," "matrix mechanics," explaining "quantum mechanics," "the properties of radium emanation," "structure of atoms," "completeness problem." They were spoken of and given sense by the Nobel laureates listed above, after which we know that time is measurable, reality is probable, vagueness is an active element of any theory, and chance is countable. After Charles S. Peirce we may hope that our idea of measurement will "never crash on the earth." After John Deely's *Four ages of understanding*, we know that there is someone who tried to distinguish order and trace paths in all brilliant findings of four ages of thought, and to prove his angle of seeing the giant figures of thinkers in the pantheon of humanity.

Note

1. The Cyrillic alphabet, which, with the entry of Bulgaria into the European Union in 2006, became the third officially recognized alphabet after the Greek and the Latin ones.

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