

BASICS
OF
SEMIOTICS

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JOHN DEELY



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Basics of Semiotics

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AUTHOR'S LETTER TO THE 8TH EDITION READERSHIP

There are three points concerning this book that I would like readers to have in mind from the outset. The first concerns the difference between semiotics and semiology. The second concerns the reach of semiotic inquiry. The third concerns the style of historically layering references to remove the blind spot in traditional style sheets to the importance of the fact that no one writes after they die.

Point 1 The Fallacy of Equating Semiology with Semiotics

Words carry the history of human understanding. Although we invent them, we never succeed wholly to control “what they mean” or “signify”. For no sooner does someone propose a word for the first time, than it is either ignored and comes to nothing or it is adopted and comes into use. But the *way it is used* depends always on the *context in which it is used*, and context is always changing.

So we have to distinguish between *signs as stipulated*, which are unique to human linguistic communication and the point of departure for such communication as a species-specifically human phenomenon, and *customary signs*, which is what successful stipulated signs more-or-less quickly—but inevitably—become through usage within a linguistic community. As stipulated, words are *symbolic signs*; as used, inevitably, “symbols grow”, in the famous ob-servation of Charles Sanders Peirce.

Now there are two such symbols—symbols that have grown beyond the point of being subject to arbitrary stipulations of use by particular authors—from the 20th century that readers of the present book need to bear in mind, to wit: “semiology”, on

the one hand, and “semiotics”, on the other. Stipulation may correct custom, but custom is the more important feature over the long run; and if we view the usage of these two terms over the 20th century as a whole, we find the clear outlines of a difference which is crucial for any reader of this book to know.

“Semiology” as an influential term in the discussion of signs today dates from the posthumous 1916 publication of Ferdinand de Saussure’s *Cours de linguistique générale*. Saussure’s view was that signs as such occur wholly and solely within the realm of human culture, with linguistic signs chief among them.

“Semiotics” as an influential term in this same discussion dates principally from 1963, the date when Thomas A. Sebeok launched the notion that signs are not at all restricted to the realm of human culture, but are found throughout the lifeworld of animals. Thus he contrasted “anthro-posemiosis”, as containing a species-specifically human component, with “zoösemiosis”, as an action of signs generic to animals, and overlapping the awareness of human animals with the awareness of many other species of animals. In 1981, in his capacity as Editor-in-Chief of *Semiotica*, the journal of the International Association for Semiotic Studies, Sebeok published an article by Martin Krampen, “Phytosemiotics”, the first article to propose further an action of signs also in the vegetative world of plants. With this move Sebeok had laid the full foundation for the development soon to be known as “Biosemiotics”.

In all this development the work of Charles Sanders Peirce was, paradoxically, both central in the United States and marginal. For many years, the Peirceans deluded themselves into believ-ing—falsely, as it turned out—that Peirce preferred the word “semeiotic” to “semiotics”; and they maintained a kind of “view from the bleachers” on the general semiotic development within which Sebeok had proven to be, by 20th century’s end, the central organizing, editorial, and authorial figure, both in the United States and in Europe.

By the 20th century’s end, “semiotics” had come to stand in sharp contrast to “semiology”, the former signifying the knowledge acquired by the study of the action of signs in the full extent of that action, the latter signifying at best the study of signs at work in human culture and at worst the view that only in human culture are signs at work—the original view of Saussure, which places him in that regard within the tradition of modern philosophy as “idealist” in holding that the human mind in the end knows only what the human mind itself produces.

Sebeok early addressed the situation of semiology vis-à-vis semiotics as a “*pars pro toto* fallacy”, that is, the fallacy concretely of taking the limited action of signs within the realm of human language and culture to constitute the whole of the action of signs. And many have been the attempts to dodge the implications of this fallacy as Sebeok so effectively and unmistakably exposed it! As a result—and as of the time of this book published in China in hand there is, perhaps, no single fact of which it is more important

for the reader to have an explicit aware-ness—the “*pars pro toto fallacy*” as Sebeok exposed it is far from dead in contemporary intel-lectual culture.

Consider, by way of illustration, the work by Daniel Chandler, mistitled *Semiotics: the Basics* (based on a website called *Semiotics for Beginners*). This book—and there are others in the same line, though perhaps less glaringly—in fact concerns all and only the semiological part of semi-otics pursued by the epigones of Saussure: “basics of semiology”, in short. “Semiotics” so (mis)conceived is compatible with the “way of ideas” of modern nominalism, in exactly the way that Peirce pointed out that “pragmatism” after James and Dewey remained compatible with nominalism, whereas Peirce’s own view as “pragmaticism” presupposed (exactly as did the semiotic of John Poinot) “scholastic realism”—the knowability of being in its full range as in-cluding the mind-independent order of reality along with reality’s socially constructed di-mensions within the semiosis of human animals. What makes semiotics definitively postmodern is that it crosses precisely the boundary that modern philosophy in its “epistemology” (and Saussure in his “semiology”) identified as *ne plus ultra*: knowledge of things of the world as they are in themselves with aspects of their being both prior to and independent of human culture.

Inasmuch as the action of signs within culture is assimilable to the larger action of signs mani-festing culture itself as no more than a species-specifically human part of a much larger nature, it follows that to speak only of cultural semiotics as “semiotics itself” is at this point in time to create a work wherein the “*pars pro toto fallacy*”, as Sebeok identified it, comes to verge on a “*pars pro toto fraud*”. Any book which does this, Chandler’s book only as a specific example, thus, is not about what its name properly signifies, but is about an anthropocentrically delimited area *within* the *much larger* “action of signs” that constitutes the subject matter of semiotics in its full extent. That encompassing “action of signs”, not the delimiting part of that action creative of and within culture, defines *semiotic* inquiry as a whole, and constitutes *semiotics* properly so-called as a comprehensive field.

Point 2 Physiosemosis: An Action of Signs Prior to and Independent of Life

The strangest feature of sign-action is its involvement with nonbeing. In physical cause-effect interactions, the participants must all here and now exist. Not so when it comes to signs. Lying and deception would not be possible apart from semiosis, but neither would any future devel-opment that is not wholly predictable on the basis of past occurrences. The vehicle of significa-tion, what is commonly called “sign” or (by Peirce) “representamen”, must exist in order to convey an object signified to or for some third (be it a person or not). But *what* is conveyed may not exist, and similarly the “third” to which it is conveyed may not yet exist.

This is very strange, yet it is what is distinctive of semiosis, distinctive of the action or "causality" proper to signs. A sign placed on the left fork of a road disappearing into a forest may announce "Bridge Out". But it may well be that there is no bridge on that fork at all, or, if there is a bridge, in fact it may not be unusable. When we extend such considerations backward into our thinking of the universe as we know it to have been prior to the advent of living things, it is hard to avoid considering some kind of "influence of the future" at work in the interaction processes which change the universe little by little from "nothing but" a lifeless expanse to an expanse with regions capable of supporting, and then actually supporting, living things. In this way, semiosis (the action of signs) may well provide the "missing link" in our understanding of evolution, both cosmic and biological.

The book in your hands presented the first full argument for this idea of "physiosemosis", that is, an action of signs which not only *accompanies* the semiosis of living things ("biosemiosis") but *preceded* life in the universe. Those crucial changes by which an originally lifeless universe, stage by stage, passed from "nothing but" to "something more", coming closer and closer to the threshold where life could enter upon the cosmic scene (Chapter 6 of this book argues), are changes which *already* involve that distinctive action of signs whereby the relevance of past to future events critically changes. To repeat the point: semiosis thus considered provides the "missing link" for our full understanding of the universe as evolutionary.

Before this book, no one but Charles Sanders Peirce had voiced this suspicion about so full an extent of the action of signs. Scholarly work after Peirce, but directly leading up to the writing of the present book, has demonstrated that Peirce's central claim—that signs consist in an irreducibly triadic relation not all of whose terms need exist independently at the moment that any given semiosis occurs—was a claim actually established as the culminating achievement of the original Latin development of the doctrine of signs between the work of Augustine of Hippo (354–430) and the semiotic of John Poincot (1589–1644).

This original semiotic development, called "protosemiotics" in recent literature, began with that first thinker formally to propose an understanding of sign transcending the distinction between nature and culture, namely, Augustine of Hippo in the late 4th century. The protosemiotic development climaxed in the early 17th century with John Poincot's publication of his *Tractatus de Signis* in 1632, showing how the being of signs as consisting in triadic relations transcends not only the nature/culture divide but also the inner/outer boundary of self and other. This 1632 *Treatise* by Poincot established *how* the being of signs transcends subjectivity, both physical *and* psychological. Yet Poincot's semiotic "fell dead-born from the press" (to borrow Hume's expression), forgotten *within* the Latin language, and unknown *outside* the Latin language, until it was reprinted in the bi-lingual edition of 1985.

History is not the main point of the present book (though it is an important point). The main point is to grasp theoretically the full extent of the action of signs, the subject matter of that thematic knowledge we have come to call (after Locke and Sebeok in particular) "semiotics", is. And, theoretically, semiotics differs from semiology, not only in not confining itself to culture as species-specifically human, but also in considering experientially the action of signs to determine analytically (rather than by a stipulation, as happened among the Saussureans) in what the being of signs formally consists.

Point 3 Removing a Blind Spot in the Dating of Scholarly Sources

The reader would do well to take note of the distinctive reference style employed in this book, what has come to be called "the historical layering of sources", which removes a "blind spot" that has heretofore been tolerated in intellectual culture to the disadvantage of all.

Taking as a principle the simple fact that no one writes after they die, the Semiotic Society of America announced in the "Preface" to its second Annual Proceedings volume, *Semiotics 1981*, the development of a new style sheet. This "SSA Style Sheet", with details worked out over the next five years, was formally published in *The American Journal of Semiotics* 4.3–4 (1986), pp. 193–215. This SSA style does not greatly differ from existing standard styles, such as the APA, save in one crucial particular: SSA style requires an explicit awareness of the actual lifetime, the actual historical place, as it were, of authors cited.

Historical layering distinguishes between source date, which must and can only be a date from within the lifetime of the author of the given text, and access date, which is the date of the translation, or edition, used to access the source. These two dates may be one and the same; but when they are different, the source date is used for references within the text, while the relation of the source date to the access date is then explained within the final reference list at the end of the article or book.

When references are historically layered, by contrast to other style sheets (such as the APA, etc.), one can see the historical periods at play within the work, much as a geologist is able to see the history of the earth in layers of rock. There is no drawback to historical layering, and there are considerable advantages—not the least of which is that it forces authors and readers alike to be or become explicitly aware of the historical context at play in any writing of which they make use. It is a simple but revolutionary adjustment of reference style.

Of my several books written after *Basics of Semiotics*, there are three in particular that provide a straightening out of the *historical* record as to how semiotics came to realize the centrality of triadic relations to the being of signs as suprasubjective modalities whereby

the future, through the present, constantly reorganizes the relevance of past events to present developments.

The first is my study of *Augustine & Peirce: The protosemiotic development*, covering the late 4th to early 17th century development of the first florescence of semiotic consciousness in the Latin language. (A much larger work, *Medieval Philosophy Redefined: The development of cenoscopic science from the birth of Augustine in 354 AD to the 1644 death of Peirce*, covers this same ground but presents the thread of semiotics within the whole pattern of the weave of Latin Age philosophy, as did my earlier work of 2001, *Four Ages of Understanding: The first postmodern survey of philosophy from ancient times to the turn of the 20th century*, tracing the thread of semiotics in the pattern of the entire history of philosophy itself from the 7th century BC to the opening of our own 21st century.)

The second is my study of *Descartes & Peirce: The crossroad of signs and ideas*, which shows how modern philosophy's "way of ideas" eclipsed the "way of signs" that would not be taken up again until Peirce, nor generally recognized until Sebeok, then to become the mainstream se-miotic development of philosophy as a postmodern contributor to the global intellectual culture.

The third is the small monograph, *Semiotics Seen Synchronically: The view from 2010* (Ottawa: Legas, 2010), based on an article of the same title originally published in *Chinese Semiotic Studies*, vol. 4, no. 2 (December 2010), 9-113, and now included as Chapter 14 of the present book. This Chapter sets straight the record of the 20th century founding of semiotics as a thematic inquiry central to the transition from the modern national language intellectual cultures to a postmodern and global intellectual culture, providing an overall record of that "founding" as what Susan Petrilli, in her 2008 Sebeok Fellow Address ("Semioethics and Responsibility", *The American Journal of Semiotics* 24.4 [2008], pp. 1-48), rightly described (p. 3) as "a phenomenon more 'of our time' than it is of any time past".

In this new final chapter of the present book is fully developed the first of my three points as stated above: that the "semiology" of Ferdinand de Saussure, which provided the original 20th century inflammation of interest in signs, was most decisively a modern development that set terms for the study of signs both squarely subordinate to the culture/nature distinction and firmly restricted to the cultural side. Hence Sebeok was able to label Saussure's view as a "*pars pro toto* fallacy"; and Deely, in the 1986 anthology *Frontiers in Semiotics*, co-edited with Brooke Williams and Felicia Kruse (Bloomington: Indiana University Press), fleshed out the full extent of Sebeok's charge in a collection of essays that proved a watershed in the shift from cultural semiosis, seen as self-contained, to semiosis seen as containing the development of culture and nature alike.

In closing this letter to the readership, I would like to express my deep thanks to Jie Zhang and Hongbing Yu for accepting the latest edition of this book in their book series

of *Select Works of Eminent Contemporary Semioticians*, published by the Nanjing Normal University Press in China. Chinese intellectuals are playing an increasing part in the 21st century growth of semiotics as a phenomenon of the increasingly global intellectual culture. The more semiotics comes to be understood, the more it is destined to flourish in enabling us all to transcend our cultural boundaries in achieving a condition of humankind that embraces our whole planet in a shared common good. Semiotics is the positive core of the transition of global intellectual culture, both philosophically and in general, to a postmodern era not only beyond the solipsism of modernity but an era that recovers the premodern contributions of cenoscopic science to what has finally emerges as “semiotics”, the only inherently trans-and inter-disciplinary perspective on human knowledge.

AUTHOR'S PREFACE TO THE FIRST EDITION

First Published 1990 in English and Portuguese

The last half-century or so has witnessed an increasing interest in semiotic inquiry, with a concomitant scholarly production around the world of books, journals, and articles devoted to the endless facets of the subject. The image of astronomy in 1611 conveyed by John Donne has been suggested as the image of the modern semiotic universe: "Tis all in pieces, all coherence gone; / All just supply, and all Relation".

For conspicuously absent in the burgeoning semiotic literature has been a unified treatise laying out the basics behind the very idea of semiotic inquiry in general, a treatise providing a map of semiosis as an integral phenomenon (it being understood that semiosis is but the name for the action of signs, which provides the common subject matter for the whole range of inquiries covered by the umbrella term "semiotics"). This book is a remedy for that absence, a first approximation to a comprehensive rationale for the linking of semiosis at the levels of culture, society, and nature organic and inorganic.

I have tried to have a fair regard for contemporary and historical scholarship, but nothing has been included here just for the sake of being included. I have not followed the practice of allowing the sociological prestige attained by the application of special methods within semiotics, or by celebrated idiosyncratic preoccupations of individual authors, to enter *eo ipso* into the account. I have tried to allow the requirements of the subject matter to dictate the references at every point. So if there are some strange omissions, as may seem, the reader is asked first to entertain the hypothesis that the omissions are due less to ignorance than to the objective of answering the question of what is really basic in the outline of this subject matter. There can be disagreement over basics, but, for the disagreement to be fruitful, someone has first to make a stab at saying

what the basics are. Here is my guess at the riddle of how all being “pieces” and “relation” can yet supply a coherence of substance.

The aim of the book, then, is to fill the need for an answer to the question of just what is the essential nature and what are the fundamental varieties of possible semiosis. The substance of the answer to this twofold question is contained in Chapters 3 through 6. Corresponding to this answer is the answer in Chapter 2 to the prior question of what semiotics itself—the knowledge corresponding to the subject matter—basically is. And bracketing this whole discussion by way of opening and closing is a kind of sociological look at semiotics today in Chapter 1, balanced by a historical look at semiotics in retrospect and prospect in Chapter 7.

This is a book I have long wanted to write and one that has, for even longer, needed to be written; but, at least for this author, only recently have the essential insight and opportunity come together for expressing in a coherent overall framework the basic concepts of semiotics. I believe the book effectively demonstrates the thesis Sebeok advanced in his 1975 “Chronicle of Prejudices” (156):

Movement towards the definition of semiotic thinking in the biological and anthropological [and, I would add, physical environmental] framework of a theory of evolution represents...the only genuinely novel and significantly wholistic trend in the 20th century development in this field.

The twenty-first century, I hope, will bear this out, and we will see an end to the “sad fact” recorded by Sebeok more recently (1989b: 82) that “the contemporary teaching of semiotics is severely, perhaps cripplingly, impoverished” by “the utter, frightening innocence of most practitioners of semiotics about the natural order in which they and it are embedded”. Semiotics indeed “will surely shrivel and wither unless this lesson sinks in”, but the optimism and message of this book is that the lesson, being inscribed in the very object of semiotic inquiry, has to sink in as the inquiry continues to be pursued.

Debts in writing a book are normally theoretical or practical. In this case, one debt, like semiotics itself, straddles the two—the work of Brooke Williams in editing the manuscript. The theoretical debts should be clear enough from the references in the text itself and from the dedication. Here I will mention only the main practical debts, after first noting a terminological point that might otherwise cause the English reader some confusion.

This book was conceived and written in Brazil, while I was a visiting professor on the Faculdade de Letras of the Universidade Federal de Minas Gerais in Belo Horizonte (UFMG). In the background to all that is written here is the recurring linguistic problem of the final “s” often added nowadays to the technical term “semiotic”. Although English readers tend to take it that way, the “s” on this word is not a plural form, but rather a kind

of malformation puristically speaking. Since the malformation is inevitable anyway in popular consciousness, in earlier writing for English-speakers, I have taken the occasion of the linguistic accident of the two forms to convey a difference between foundational and superstructural inquiries in the field.

That strategy is unworkable in Portuguese. There is no way to accommodate the distinction of these two forms ("semiotic" vs. "semiotics") at the level of a single lexical item, because the Portuguese term "semiótica" is required equally for both. To insist in the context of a Portuguese-speaking audience on the form of the distinction as earlier established in English, therefore, would be tantamount to making an at least twofold grammatical accident (first of the peculiar class of "ics" words, second of contemporary popular English) into an obstacle to the effective presentation of the broadest and most fundamental issues.

In the present work, accordingly, an accident of Portuguese has led me to strike a compromise which extricates us from relying overmuch on an accident of English. While I have varied the two forms in context in ways that could be shown to be consistent with earlier specialized discussions in English, I have not made an issue of the two forms in their variation in this work—a variation which disappears in the Portuguese. Instead, my concern in the present work has been, rather, to convey and to establish the overlap and common core in the comprehension of both of the forms as they occur in general use today, and hence to use them even in their difference as suits the conveyance of the single form "semiótica" (or semiotic, or semiotics) for a presentation of the broadest and most fundamental issues leading to an integral *doctrina signorum* today.

In view of the practical circumstances which concretely gave rise to this book, I must thank first of all the members of the Fulbright Commission in the United States, who appointed me to the UFMG, and second of all Dr. Marco Antônio da Rocha, Executive Director of the Fulbright Commission in Brasília, whose decision to extend my appointment for another semester made the completion of the book possible. Along with these gentlemen of the Fulbright Commission I owe thanks to James Barta, President of Loras College in Dubuque, Iowa, for the leave of absence to work in Brazil.

The chapters of the book reflect my work in semiotics particularly since the publication of *Introducing Semiotic* in 1982. The present book ends by confirming with new detail the outline for a history of semiotic inquiry with which that book began. Williams (1985a: xxvi) has made the point that the synchronic and diachronic, being mutually implicatory at all points, can be "distinguished but not separated in semiosis". In just such a way does the overall perspective of the two works differ, that of the earlier book emphasizing diachrony, whereas a synchronic overview of the general theoretical possibilities for semiotic research dominates the present book throughout. *Introducing Semiotic* lent to the past a shape from the present toward shaping the future. *Basics of Semiotics* gives the full proportions of that mediating shape.

In particular, the chapters of this book reflect mainly the two courses and eight lectures I gave in Brazil during the winter semester of 1988.

Chapters 1, 3, and 4 reflect the plenary address and “short course” given at the VII Seminário Internacional de Semiótica e Literatura at Campina Grande in Paraíba on September 19 and September 20–22. I thank Professoras Elizabeth Marinheiro and Celina Alves Pereira who arranged the invitation.

Chapter 2 is one of two partial exceptions to the Brazilian pattern of the whole. For this chapter my main thanks go to Professor Desmond FitzGerald of the University of San Francisco, who brought the thoughts there expressed into their first rough form through the invitation he arranged for me to address, on May 29, 1987, a Language Colloquium being held at his university. These ideas were further refined in classroom and informal discussions at the UFMG in my course on the development of semiotic consciousness, but the original draft was made in San Francisco.

Chapter 5, the other partial exception, is substantially drawn from an article now in press with *The American Journal of Semiotics* under the title “Sign, Text, and Criticism as Elements of Anthroposemiosis”. Besides being a distillation of the text used for my course at the UFMG on language from a semiotic point of view, putting flesh on the bones of the integral model for human experience outlined in *Introducing Semiotic*, Part II, Section 3, and again in the editors’ preface to *Frontiers in Semiotics*, subsequent drafts of this distillation were criticized editorially and much improved through the suggestions of Brooke Williams, Floyd Merrell, Myrdene Anderson, and Dean MacCannell. To these four editors are due thanks for this chapter.

Chapter 6 reflects in particular ideas presented at the Pontifícia Universidade Católica de São Paulo in a long lecture delivered on November 23. My thanks to Professora Maria Lúcia Santaella-Braga, who arranged the lecture and provided incomparable hospitality for me and my wife and who, by her enthusiasm alone, persuaded my audience that the idea of a semiosis affecting even the stars might be of value.

Chapter 7 reflects particularly the Ciclo de Conferências I gave at the Universidade de Brasília, November 16–18. My thanks to Professor Karl Erik Schollhammer, who arranged the conferences, and who inspired, in the course of his own class lecture that I attended on Jakobson’s poetics, the formulation of the peculiarly semiotic integration of history and theory expressed here. Karl Erik’s hospitality and conversations were of exceptional value in gestating this work.

I thank Professor Myrdene Anderson of Purdue University, Professor Nathan Houser of the Peirce Edition Project at the Indianapolis campus of Indiana University, and Professor Ralph McNerny of Notre Dame University for the help they provided from afar in nailing down a few key references.

Over and above the specific work on the volume, thanks go to the faculty members of the Departamento de Letras Germânicas of the UFMG for their friendliness to me and

their interest in semiotics. These thanks are due to the *Chefe* in particular, Professora Stela Beatris Tôres Arnold, who arranged the details of my stay with the faculty. I thank Professora Ana Lúcia Almeida Gazolla, Pró-Reitora de Pós-Graduação da UFMG, for her early suggestion of the extension of my stay.

Special thanks go to Professora Júnia de Castro Magalhães Alves for her careful readings of the chapters and general interest in the progress of the work and for the countless ways in which she helped two strangers become at home in a new language and land. She also embodied the healthy skepticism that should seize any reader confronting a first "volume of basics". When I told her the third chapter was complete, she answered "Yes. But is it any good?" Now the question applies to the whole.

Thanks go to the students who, by their attendance in the courses and their discussions, concretely demonstrated interest in our subject matter—which is the essential encouragement for any professor. Among these students, two stand out in the intelligence of their enthusiasm: Thaís Flores Nogueira Diniz and Júlio César Jeha. Senhor Jeha also helped directly in preparing the bibliography for this work, and in providing a first draft for the translation of Chapter 5.

I thank J. Bantim Duarte, Editorial Director of Editora Ática in São Paulo, for extending a contract for the work in Portuguese translation; and Professor Ana Claudia de Oliveira for her linguistic support in bringing that November 25 meeting in the Ática offices to its successful conclusion.

An acknowledgment goes above all to my colleague Julio C.M. Pinto, who was himself on the Paraíba program and provided the translation for my lectures there. Out of that collaboration grew the concrete proposal that became this book. His translation of the whole into Portuguese for Editora Ática is my deepest source of debt in making of this Brazilian book a reality for readers in Brazil.

JOHN DEELY
Belo Horizonte, Brazil
29 May 1989

THEMATIC EPIGRAPHS

“A sign is an objective cause, not the principal objective cause, but a substitutive one, by reason of which a sign is said to be instrumental, not indeed as if it were an instrument of an acting agent, but as it is a substitute for an object, not informing as a specifying form, but representing from outside what it represents.”

“An object in general...consists in this, that it be something extrinsic, from which derives and upon which depends the intrinsic rationale and specific character of any capacity or act; and this is reduced to the category of an extrinsic formal cause not causing existence, but specification.”

“If therefore an end as end specifies, it takes on the rationale of an object, for the rationale of a specifying object is one thing, the rationale of a moving end quite another. And thus specification pertains to the order of an extrinsic formal cause; the impetus of an end, to the finalization moving to produce a thing in being. But to move relative to the act of being and existence is outside the order of specification.”

JOHN POINSOT 1632a: 195/23-29, 166/4-10 & 177/8-178/7

“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...—...is perfused with signs, if it is not composed exclusively of signs.”

CHARLES SANDERS PEIRCE 1905-1906: 5.448n.

“Hence the name of this type of causality is ‘extrinsic formal causality’. It is formal causality because it specifies the...relation, and it is extrinsic formal causality because the specifiers lie outside the...relation.” And they need not exist...

RALPH AUSTIN POWELL 1986: 297 & viva voce

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LITERARY SEMIOTICS AND THE DOCTRINE OF SIGNS

In the United States, in contrast with the predominantly literary and linguistic development semiotics has undergone in the more typically European contexts, the development of semiotics has taken a rather different turn, influenced especially perhaps by Thomas A. Sebeok and the many projects associated with the Research Center for Language and Semiotic Studies which he chaired at the Bloomington Campus of Indiana University. This development shows promise of providing for the semiotics movement as a whole a new and larger framework for the conduct of research, one that is, to tell the truth, more in keeping with the possibilities contained in Locke's original adumbration of the place of semiotics among the sciences, natural and human alike.

It helps often to have a label identifying important differences, and in this case the labels have largely been provided by the developments themselves. All that is needed is to pluck from the tree of established usages the terms most fruitful for conveying the flavor of the paradigm shift semiotics continues to undergo sociologically, as it expands outward from the literary and the linguistic to take in further the realm of biological forms and, indeed, evolutionary development in general. For the very emergence of semiotic animals is already itself a thirdness respecting the general development of the physical universe. What these terms are was suggested in the French context by Georges Mounin, inadvertently and in spite of himself, as early as 1970:¹ "the term semiotic has made its way into French...as a designation for semiology in general—an ill-advised usage...."

1. Mounin 1970: 57n.

What I want to bring out are the underlying reasons why Mounin experienced the emerging usage as “ill-advised”, and, at the same time, paradoxically, I want to point out that what was ill-advised was not the emergence of the new usage, but the attempt to equate it with the established usage whereby the designation “semiology” had come to stand for a part mistaken for the whole prospective of a doctrine of signs. From the point of view of the North American development, it turns out to have been profoundly misleading for Decio Pignatari to announce:² “In Europe, Semiotics is called Semiology...”

Asa Berger correctly noted³ that “the essential breakthrough of semiology is to take linguistics as a model and apply linguistic concepts to other phenomena—texts—and not just to language itself”. So far so good. But if that be the case, then the essential breakthrough of semiotics, by contrast, is to see that the phenomenon of semiosis requires a model within which linguistic phenomena taken together appear as a subset of a much broader range of sign-activity which cannot even be confined to the cultural side of the line defining our ideas of the natural world. In other words, if semiology is rightly taken as a proper name for the genre of semiotics studying the sign as “first of all a construct”, in the exact expression of Paul Perron,⁴ then semiotics by rights should be taken inclusively to name that larger realm of which semiology forms but a distinguished part, including, as it does in anthroposemiosis, the highest achievements of semiosis, undoubtedly literary.

What I would like to do here, then, is suggest a way of broadening the consideration of literary semiotics to include in some sense natural phenomena as well as purely cultural and literary texts. Thereby we may see if the notion of narrative as semiotically conceived might not recapture something of the classical philosophical understanding that saw cultural phenomena—including literature—as in some sense an extension of and linked with a larger world of nature which cultural beings no doubt may take for granted and even ignore in their round of life, but which remains nonetheless the inevitable context in which they move and on which they depend even as cultural.

For it is this larger ambience which provides in the first place the materials or, as we may say, the raw possibilities of cultural creations—including literary texts, just as it subsequently provides for their sustenance.

In his 1984 International Summer Institute for Semiotic and Structural Studies (ISISSS) workshop on “Semiosis as a Psychologically Embodied Phenomenon”, Gary Shank proposed for semiotics the notion of narrative which I would like to make the center of my reflections here. Human beings, he suggested, “are essentially narrative as opposed to the other animals.” This is an interesting notion and a highly semiotic

2. Pignatari 1971: 27.

3. Berger 1982: 14, 17.

4. Perron 1983:1.

one. We hear much of formal and logical structures in the context of semiotics. Yet the essential transmission of culture to children takes place first of all under the guise of stories—that is to say, narrative. The animals other than human do not do this. They do not bring their young up on stories, but on instinct and examples—examples of a straight behavioral kind, not examples of heroism or adventure embodied in narrative tales such as sustain the cultures of humankind and constitute the substance of the enculturation of children in all societies. We (perhaps the literary semioticians above all) have to face the question raised by Jerome Bruner in his first class of that 1984 ISISSS (May 31): “Why can children understand stories so much earlier than logic?”

Anthropologists bring to our attention rich and exotic data that similarly attest to the importance of narrative among all the peoples of the earth. It can perhaps be said that the first of the narrative universals we ought to consider, therefore, is the universal role of narrative as the root of the transmission of culture—the root, as Brooke Williams points out in her essay on history and semiotic,⁵ of the distinctively human semiosis whereby biological heredity is transcended in the cumulative transmission of learning that narrative alone makes possible.

From this point of view, a number of clarifications become possible that are of the first importance for semiotics itself in defining its own future and in seizing on the unique opportunities opened up by the development in our day of the doctrine of signs. For the first time in perhaps three hundred years, Semiotics makes possible the establishment of new foundations for the human sciences, foundations making possible in turn a new superstructure for the humanities and the so-called hard or natural sciences alike. Such a framework has been often dreamed of, but semiotics for the first time puts it within our reach, provided only that we have an understanding of the sign and its essential functionings sufficiently rich to prevent closing off semiotic research within the sphere of constructed signs.

In this regard, the actual development of semiotics in our time provides a number of clues that should not be neglected in our attempts to interpret what sort of human phenomenon we are dealing with. “While every contributor to *Semiotica*”, Thomas Sebeok pointed out in 1971,⁶ “may indulge his personal taste when attaching a label to the theory of signs”, the terminology within the same piece of discourse will not oscillate ad libitum, for the “initial selection will have signaled” to the sophisticated readership the tradition with which the author in question stands principally aligned.

It is well known that semiotics as we find it today traces back mainly to two contemporaneous pioneers, one in the field of linguistics and one in the field of philosophy. The first of these, Ferdinand de Saussure, envisioned the possible developments under

5. Williams 1985.

6. Sebeok 1971: 56.

the label of semiology, which seems to have been a word of his own coining, fashioned, of course, from the Greek *semeion*. The second, C. S. Peirce, chose the name semiotic, also fashioned from the Greek but not of Peirce's own coining. Peirce derived his vision of the possible development we now see being actualized, as he himself tells us, from the text with which John Locke concludes his *Essay Concerning Human Understanding*.

For Saussure, the "science" of signs was to be a branch of social psychology and linguistics a subspecies within that branch, albeit the most important one. Of this "possible science", of course, Saussure himself did not say a great deal. But he did wisely caution that, "since it does not yet exist, one cannot say what form it will take"⁷ — a wise caution largely ignored, it must be said, by even the most brilliant of those in our own day who took their early inspiration from Saussure and proceeded to develop a "science" of signs centered exclusively on literary texts and other artifacts of culture, which were always treated on the patterns of language and almost as of a piece with it. Within this tradition, the possibilities of semiotic understanding, though very rich and diversified, have always been restricted in highly artificial ways in terms of what Paul Bouissac,⁸ among others, has repeatedly pointed out as glottocentrism.

To this extent, semiotic development has undoubtedly been hampered in establishing the perspective fully proper to itself by some inevitable entanglement with the coils of modern philosophy—the work of the Kantian critiques, in particular, according to which there is no world known or knowable beyond the phenomena constructed by the understanding itself according to its own hidden mechanisms and ineluctable laws. Writing within this tradition, Terence Hawkes reminds us that:⁹

It follows that the ultimate quarry of structuralist thinking will be the permanent structures into which individual human acts, perceptions, stances fit, and from which they derive their final nature. This will finally involve what Fredric Jameson has described as¹⁰ "an explicit search for the permanent structures of the mind itself, the organizational categories and forms through which the mind is able to experience the world, or to organize a meaning in what is in itself essentially meaningless".

This tradition, as I have noted, originally flourished under the banner of semiology, a term that today remains far from desuetude. It has, however, been greatly and increasingly influenced in recent years by the other semiotic tradition, which develops not from Saussure but from Peirce and Morris and a number of scientific workers. It does

7. Saussure i.1906-1911: 33.

8. For example, Bouissac 1979,1981.

9. Hawkes 1977: 18.

10. Jameson 1972: 209.

not seem too much to say that, under the pressures of this influence, we have witnessed the coming into being, alongside the term *sémiologie*, the newer term *sémiotique*, a term which, without displacing “*sémiologie*” entirely, has come to dominate over it and, to a certain extent, replace it, without, however, so far removing the intractable bias toward glottocentrism and philosophical idealism that characterized semiotic development in the Romance areas.

This bias and developing influence, of course, is by no means restricted to the Romance areas. Within current philosophy, David Clarke¹¹ has made a belated attempt to define semiotic itself in the restrictive terms already established as proper to semiology: an “attempt to extend analogically features initially arrived at by examining language use to more primitive signs, with logical features of language becoming the archetype on which analysis of these latter signs is developed”. It is simply a misnomer to title a book based on such a thesis *Principles of Semiotic*. To try to reduce semiotic to the status of a subalternate discipline within the dimensions of current linguistic philosophy already evinces adherence to the modern perspectives of idealism which semiotics points beyond.

Among modern philosophers, the one who struggled most against the coils of idealism and in the direction of a semiotic, was Martin Heidegger. His failure to free himself from the modern logocentrism is, to be sure, a testimony to its pervasiveness in modern culture, and to the scale of the task semiotic in its fullest possibilities has to face. Yet in the debate between realism and idealism, he is the one who perhaps most clearly brought to the fore the fact that,¹² whatever its drawbacks and “no matter how contrary and untenable it may be in its results”, idealism “has an advantage in principle” over realism. That advantage lies in the simple fact that whenever we observe anything, that observation already presupposes and rests within a semiosis whereby the object observed came to exist as object—that is to say, as perceived, experienced, or known—in the first place.

No one, including Heidegger, realizes this fact better than the semiotician. Indeed, at the heart of semiotics is the realization that the whole of human experience, without exception, is an interpretive structure mediated and sustained by signs. So it is perhaps not surprising that much of the original semiotic development in our time has taken place along the tracks and lines of a classical idealism in the modern sense, an environment and climate of thought within which the structuralist analysis of texts and narratives is particularly comfortable.

Yet we are entitled to wonder if such a perspective is enough to allow for the full development of the possibilities inherent in the notion of a doctrine of signs—to wonder

11. Clarke 1987: 8; cf. 120–121, 137, and *passim*.

12. Heidegger 1927: 207.

if the “way of signs” does not lead outside of and well beyond the classical “way of ideas” of which Locke also spoke. We are entitled to wonder if what we need is not rather, as the recent collaborative monograph by Anderson et al. calls for,¹³ “a semiotics which provides the human sciences with a context for reconceptualizing foundations and for moving along a path which, demonstrably, avoids crashing headlong into the philosophical roadblock thrown up by forced choices between realism and idealism, as though this exclusive dichotomy were also exhaustive of the possibilities of interpreting human experience”.

Such a development seems to be what is taking place in the tradition of semiotic. This tradition, in fact, given its name by Locke, had reached the level of explicit thematic consciousness and systematically unified expression only very late—as far as we currently know, not before the *Tractatus de Signis* essayed in 1632 by the Iberian philosopher of Portuguese birth, John Poinset.¹⁴

But, as Sebeok remarks (1976: 1), what we are faced with, under many different names fragmented by the perspectives from which those names spring, is “an ancient discipline” developing through many channels and byways toward the era of its full thematic systematization and baptism under its own name and according to the perspective proper to itself. For this same discipline *in nuce*—semiotic as the doctrine of signs—is discernible in the most ancient origins of Greek medicine, philosophy, and linguistic reflections, as recent work has begun to exhibit.¹⁵

This tradition of Poinset-Locke-Peirce, unlike that of Saussure, does not take its principal and almost exclusive inspiration from human language and speech. It sees in semiosis a broader and much more fundamental process, involving the physical universe itself in human semiosis, and making of semiosis in our species a part of semiosis in nature. Abduction, the process whereby alone new ideas are seized upon—ideas further to be developed deductively and tested inductively, beginning again the cycle—or, rather, spiral¹⁶—is first of all a phenomenon of nature. It works with constructed signs, but not only with constructed signs, and not with constructed signs first of all.

We have here two traditions or paradigms, which have to a certain extent handicapped the contemporary development by existing within it under sociological conditions of opposition, an opposition not only uncalled for logically, but one which depends on a perverse synecdoche where a part is mistaken for the whole. Semiotics forms a whole of which semiology is but a part.

13. Anderson et al. 1984: 1.

14. Sebeok 1982; Deely 1988.

15. Romeo 1976, 1977, 1979; Deely 1982, 1985; Eco and Deely 1983; Eco 1984; Eschbach and Trabandt 1983; Doy le 1984.

16. Deely 1985a: figure 2; 1985b; 2001b: 28.

Let me try to clarify the relationship by applying a linguistic metaphor. Philosophers of Latin times made the distinction between what they called *ens reale* and *ens rationis* a staple of their discourse, and they assigned in general a very clear sense to this dichotomy. They nowhere took effective notice, however, of the fact that the so-called beings of reason have a kind of reality in their own right, and that there is something curious about a distinction so drawn that one of its terms includes the other—something that requires further explanation. From the standpoint of human experience, the greater part of what we call culture, also social roles, is constituted precisely by so-called beings of reason. And, finally, there is the fact that, from this same standpoint, “reality”—what we experience directly in everyday life—is a mixture irreducible to so-called *ens reale*.

Certainly the themes and objects of what I have here called “semiology”, that is, the texts and themes of literature and language-constituted phenomena generally, belong to the order of *entia rationis* in the Latin sense. But, in the Latin sense, this object domain was also shown to be dependent upon a larger whole and ordered to that larger whole—namely, the universe of nature as we experience it. As autonomous, the sphere of human culture is but *relatively* autonomous, as transcending, but only by incorporating and resting upon, a physical environment shared with all the forms of biological life in a larger network—biosemiosis—of mutual dependence. The understanding of that larger whole precisely in terms of semiosis defines the complete task of which cultural semiotics forms a part.

The perspective of semiotic is the perspective in which “real being” and “being of reason” come together, not the perspective in which they are opposed. As John Poinsoot, the first semiotician to thematize this point, put it.¹⁷

We are discussing the sign in general, as it includes equally the natural and the social sign, in which perspective even those signs which are mental artifacts—namely, stipulated signs as such—are involved.

Poinsoot’s original point has also been restated in the terms of a contemporary semiotician. Human evolution, Sebeok tells us,¹⁸ is

not only a reconfirmation of the evolutionary processes which went on before man appeared on the scene, but continues as a dual semiotic consecution that can scarcely be uncoupled in practice: one track language-free (or zoösemiotic), the other language-sensitive (or anthroposemiotic). Semiosis must be recognized as a pervasive fact of nature as well as of culture.

17. Poinsoot 1632a: 118/2–6.

18. Sebeok 1977: 182–183.

Within this framework, Sebeok reminds us,¹⁹ the tradition of semiology is a subordinate part in relation to semiotics to the extent that semiology is fixed upon “that minuscule segment of nature some anthropologists grandly compartmentalize as culture.”

Let me cite Sebeok’s original description of terms on this theme of the two traditions:²⁰

The chronology of semiotic inquiry so far, viewed panoramically, exhibits an oscillation between two seemingly antithetical tendencies: in the major tradition (which I am tempted to christen a Catholic heritage), semiosis takes its place as a normal occurrence of nature, of which, to be sure, language—that paramount known mode of terrestrial communication which is Lamarckian in style, that is, embodies a learning process that becomes part of the evolutionary legacy of the ensuing generations—forms an important if relatively recent component....

The minor trend, which is parochially glottocentric, asserts, sometimes with sophistication but at other times with embarrassing naivete, that linguistics serves as the model for the rest of semiotics—Saussure’s *le patron générale*—because of the allegedly arbitrary and conventional character of the verbal sign.

This theme of “the two traditions” is one that needs to be developed very carefully if it is to be rightly understood. It is not at all a matter of “two traditions”: one (“Anglo-Saxon”) arising from Peirce, the other (“Continental”) arising from Saussure, which “seem to have developed separately and without interpenetration,” as Parret erroneously asserts.²¹ Such an assertion is true neither sociologically nor theoretically. Nor is it a matter of Saussure’s “long-term position in semiotic history, and his present utility”, on the ground that “almost everything that is based on Saussure can just as well be based on older sources, and nothing is lost by doing so.”²² Still less is it a question of whether²³ “Derrida has not unseated 2000 years of ‘Western metaphysics’: at most he has (unwittingly) exposed a few of Saussure’s inadequacies, a very different matter”.

What is at issue simply is the intent and scope of the term semiotic as Locke introduced it, and of the notion of “reality” as the perspective Locke labelled opens unto it.²⁴ The “major and minor traditions”, rightly understood, are no more opposed than are “ens reale and ens rationis” in the perspective proper to a doctrine of signs.²⁵ It is

19. Sebeok 1984a: 3.

20. Sebeok 1977: 181ff.

21. Parret 1984: 220.

22. Watt 1984: 104, 106, glossing Percival 1981.

23. *Ibid.*: 130, glossing Atkins 1981.

24. Deely 1986b.

25. The first anthology or “reader” to attempt to define the current situation from this point of view, *Frontiers*

not a relation of exclusion that obtains but a relation of part to whole—and of a *pars pro toto fallacy* that prevails when proponents of the part mistake it for or try to set it in opposition to the whole.

If in Europe, as we have seen Pignatari allege,²⁶ “semiotics is called semiology”, we see that, in Europe, something false is directly spoken, but something true is also indirectly spoken and through a metonymy. Inheritors of the Iberian university traditions, both Portuguese and Spanish, are in a privileged position to contribute to this truth, through a recapturing and making vital to the contemporary development of semiotic of the reflections on the sign undertaken by their own thinkers between Ockham and Descartes.

in Semiotics (Deely, Williams, and Kruse 1986), is built on the advice of Margaret Mead (1964: 287): “In this situation”—to wit, the establishment of semiotics among the traditional specialized perspectives of the sciences and humanities—“cooperation is the crucial condition for success”.

26. Pignatari 1971: 27.

SEMIOTICS: METHOD OR POINT OF VIEW?

Semiotics has given rise to a variety of methods. No doubt this variety, already considerable, is bound to increase under the ingenuity of the growing band of semiotic workers.

But the question is whether semiotics as a whole *consists* in or can be identified with such methods. The question is whether, in coming into its own, semiotics will continue modern philosophy's obsession with method or will establish its theoretical framework with sufficient richness and flexibility to accommodate itself to the full range of signifying phenomena. Will semiotics, in other words, develop the full variety and flexibility of methods that an eventual understanding of these phenomena will evoke?

A method, after all, implements some aspect or aspects of a point of view; indeed, the systematic implementation of something suggested by a point of view is pretty much what a method is. But a point of view that can be fully implemented by a single method would be, on the whole, a very narrow viewpoint. The richer a point of view, the more diverse are the methods needed to exploit the possibilities for understanding latent within it.

This distinction between *method* and *point of view*, therefore, is actually a rather important one. It is like the distinction within logic between extension and comprehension: without the latter, the former would not be possible.

Modern philosophy was characterized by a search for a method. Descartes searched for an introspective method that could yield certainty at the foundation of the sciences. Leibniz searched for a calculatory method for resolving all the problems of philosophy, particularly those that had a bearing on religion and theological dispute. Spinoza sought a geometric method applicable to ethical discussion. Newton sought a mathematical method for interpreting the details of nature. And so on.

I came to think, in my own study of philosophy, that the search for a method was in a certain sense modern philosophy's failure. So engrossed were the moderns by their search for the one true method that they overlooked, in their very assumption of it, the perspective common to all of them that guided their search to begin with and, at the same time, made it futile. The one thread that unified the modern philosophers to me was the fact that they each began with the assumption that our ideas represent themselves.¹ These philosophers ended unable to explain and absolutely baffled by how we could know anything besides our own ideas, since ideas so construed are each one's own, that is to say, private, ideas.

The situation created by this presupposition was systematized by Immanuel Kant, especially in his *Critique of Pure Reason*,² but also in the whole set of the *Critiques*. What Kant did was to systematize the modern conundrum in such a way that, while communication as a true sharing of insight is absolutely impossible within the Kantian system, the appearance of communication can be sustained by the fact that the a-priori mechanisms of our sense and understanding are species-specific and as such the same in each of us. Thus, it can seem that we are communicating even though in reality the communication appearing to occur is impossible.

And this is not so different from the situation hypothesized by Leibniz, who explained communication ultimately through the hookup of the individual monads with the Divine Monad, the great communications satellite in the sky that made my representations correspond with yours and so on for every other creature forming and projecting its own private representations.

Now I say, in contrast with all of this, that semiotics provides not a method first of all but a point of view. From within this point of view it becomes clear that ideas are not self-representations but signs of what is objectively other than and superordinate to the idea in its being as a private representation. Semiotic is a perspective or a point of view that arises from an explicit recognition of what every method of thought or every research method presupposes. Semiotic arises from the attempt to make thematic this ground that is common to all methods and sustains them transparently throughout to the extent that they are genuine means by which inquiry is advanced. Semiotics, then, or the semiotic point of view, rests on the realization of a unique form of activity in nature, as we will look at in some detail in the chapters following, and for which, as we have seen, Charles Sanders Peirce coined the name *semiosis*.

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1. That is to say, in our terms, that our ideas are in the first place objects rather than signs. How this seemingly innocent assumption conflicts with and impacts upon the possibilities of semiotic understanding of conceptions and experience we will see at some length in Chapter 5.
 2. Kant 1781 (1st ed.), 1787 (2nd ed.).

This activity, the action of signs, is in fact presupposed by the very idea of method. Signs, that is to say, are required not only for any given method in philosophy or in the sciences, natural or human, but for the very possibility of there being such a thing as method or inquiry of any kind. Semiosis is a process of revelation, and every process of revelation involves in its very nature the possibility of deceit or betrayal. Every method reveals something (hence some truth about the world, some aspect of the world, or some field of investigation), and, insofar as it reveals, is a semiotic method, by which I mean simply that it is, as a communicative modality, something sign-dependent.

Conversely, any method ceases to be semiotic only as and insofar as it betrays its character as a method, by treating the signs upon which it relies as if they were merely objects. So we have bizarre methods, for example, in the recent history of philosophy, such as logical positivism, with its so-called verification theory of meaning, put forward as a means of removing nonsense from philosophy, by a twofold (and doubly arbitrary) stipulation telescoping the signification of *dicisigns*³ into their truth and further telescoping their truth into the sense-perceptible dimension or aspect as such of their signifieds. Thus, only a *dicisign* designating sensibly accessible signifieds could be true, and only true designations of such signifieds could have significance.

No sooner was this method announced than it was rightly denounced as a sham, on patent and blatant grounds that verification presupposes signification, for what cannot be understood can be neither proved (verified) nor disproved. This circularity made the ballyhooed method in fact untenable from the beginning. After more than a quarter of a century of beating around the bush on the point, we find such “greats” of the positivist era as A. J. Ayer informing us that, after all, the verification theory of meaning must be somewhat modified. In order to verify a proposition, the proposition must first be understood. But, if it can be understood independently of being verified, it must have some other “meaning” than that which depends directly on verification—some meaning, indeed, that makes verification thinkable and possible in the first place. This objection had been stated already in the first week of the debate, and hardly needed Ayer’s belated acknowledgment to stick. (Indeed, what calls for explanation is the belatedness of the acknowledgment.)

So the verification theory, though paraded as a method for eliminating as “nonsense” metaphysical concerns from science and from philosophy itself, was rather a method for replacing philosophical questions with ideological commitments disguised as philosophy.

3. *Dicisigns* or “propositions”, that is to say, signs that both represent and make an assertion, positive or negative, about what is represented, in contrast both to *represigns*, “rhemes”, or “terms” (isolated linguistic elements whether simple or complex that represent without asserting anything about what is represented) and to *suadisigns* or “arguments” (complex linguistic forms that give reasons for accepting or rejecting something asserted about what they represent). This terminology taken from Peirce I expand and develop in full in a book now almost complete, *Logic within Semiotics* (Indiana University Press, forthcoming).

The verification theory, in short, insofar as it involved a method, did exactly what any method does: it implemented a theory and point of view—in this case, a dogmatic and ideological one hostile to philosophical tradition and incapable of considering its own foundations without becoming internally inconsistent: a sorry approach indeed. The root incompatibility of the ideology behind the method with a semiotic point of view was already a primary sign of this antinomy at the foundations of the verification theory of meaning. The same would have to be said for Bertrand Russell's so-called "Theory of Descriptions" within logic, or B. F. Skinner's so-called "Behaviorism" (after Watson, for whom, unlike Sherlock Holmes' companion, consciousness counted for nothing): these "methods" did not merely implement a point of view, but paraded the point of view itself in the guise of a method, thereby objectifying the sign processes on which they relied in such a way as to make it appear, or at least enable one to pretend, that no other point of view on the objects considered could have legitimacy.

I distinguish then, first of all, a point of view from a method, and I want to say that semiotics, like logical positivism or behaviorism, is a point of view rather than a method. But, at the same time, unlike positivism or behaviorism, *semiotics* in its doctrinal foundation is not an ideological standpoint that can be disguised as a method of inquiry while in reality closing inquiry down.

While we can make the objection that, in practice, semiotics can *never* be ideologically free, as all semioticians as human inquirers hold some ideological stance, the point remains that any such ideological stance, however intrinsic to semioticians' understandings of "semiotics", is nonetheless *extrinsic* to the doctrine of signs, which does not in itself prescribe a given ideology disguised as a method of inquiry. Semiotics rather depends upon the maintaining of a point of view, which not only is transdisciplinary but also is in a basic sense presupposed to and therefore compatible with every method insofar as the method truly reveals something of the world or of the nature of the subject matter into which it inquires, including the arteriosclerotic ideologies confused with methods. That is to say (since even bad methods truly reveal), the compatibility of semiotics according to what is proper to it as realizing the role of the sign in every method is its capacity for revealing in the method what that method conceals as well as what it discloses—that is to say, the abiding difference between a method as implementing a point of view and the point of view itself implemented. In this way, a semiotic standpoint is able to reveal when *too much has been excluded*, as is always the case to the extent that an ideological stance is being concealed *in the guise of a "method"*.

To be ideological and to be historically conditioned, therefore, are not necessarily the same. The latter is true of every attempt at inquiry, including semiotics. The former is true of semiotics only to the extent that and whenever the perspective proper to the sign is traded for something else in the subjectivity of the inquirer. But then this trade will inevitably reveal itself objectively in the public deployment of consequent sign-systems

(for example, in the speech or writing of the inquirer), where it will become visible to others in the community of inquirers and subject to criticism with appropriate revision or rejection.

Thus, even the “method of verification”, like the “method of dialectics”, had need of some signs in order to deny other signs. Its illegitimacy lay not in the signs it used but in the signs it refused, to wit, the signs that would have carried the discourse beyond the arbitrarily stipulated boundaries and were covertly relied upon in order to assert the illegitimate boundaries in the first place.

What, then, are we to say the semiotic point of view is? And how is it that this point of view, unlike others, cannot properly be reduced to or converted into an ideology? To answer the questions in order: The semiotic point of view is the perspective that results from the sustained attempt to live reflectively with and follow out the consequences of one simple realization: the whole of our experience, from its most primitive origins in sensation to its most refined achievements of understanding, is a network or web of sign relations. This point of view cannot be reduced to an ideology without losing what is proper to it for the reason that its boundaries are those of the understanding itself in its activity of interpreting dependently upon the cognate interpretations of perception and sensation.

Since this network, which when brought to light through reflection establishes a novel perspective, is first of all a matter of experience, in this book we will stick strictly to the basics. We will begin at precisely that point where semiotics, in its contrast with semiosis—that is to say, as a thematically unified and organic network of knowledge—becomes possible, namely, in the reflective experience of linguistic animals. We will see that the origin of semiotics and the drawing of the line between human and other animals are of a piece, and that, at the same time, the origin of semiotics as the perspective proper to experience by that very fact extends the prospective knowledge semiotics entails beyond the biological boundaries of specifically human animals to encompass all those communicative modalities upon which the deployment and sustenance of specifically linguistic competence depend. Such communicative modalities begin with the obvious involvement of perceptual and sensory modalities hardly uniquely human but include ultimately too the physical environs that sustain these and further communicative modalities beyond the boundaries of what is sensible according to some given biological heritage.

The detailed extensions of semiotics to the living sphere as a whole, and beyond it to inorganic nature, are not matters of common experience (“cenoscopic knowledge”) but rather matters that depend once formulated on experimental scientific and mathematically sophisticated designs for their establishment (“ideoscopic knowledge”). As such, they exceed the province of this book, and are left for other works. Here I attempt only a sketch of the foundations and framework which make such detailed extensions

feasible. It seems to me, as it seemed to Peirce,⁴ “that one of the first useful steps toward a science of *semeiotic* [as he generally misspelled the term taken from Locke], or the cenoscopic science of signs, must be the accurate definition, or logical analysis, of the concepts of the science.” After all, if the basics are grounded well and firmly grasped, their extensions and applications will result inevitably in the course of time.

The basic perspective these chapters aim to establish, then, is the perspective proper to the sign according to the being and activity it reveals in the experience of each of us. As virtual to all experience, the actual perspective in question is, therefore, testable analytically by each reader. Moreover, it is rooted first of all in common experience, precisely as that experience reveals itself as a constructed network built over time both through the biological heritage of the animal species as such (in our case, the species *homo sapiens*) and through the individual experiences whereby, atop the biological heritage, socialization and enculturation transpire. The basics of semiotics are a question, in the terms Peirce appropriated from Bentham,⁵ of *cenoscopic* rather than *ideoscopic* development, that is, they concern layman and specialist alike, and not specialists first of all.

A favorite metaphor, which I got from Sebeok,⁶ and which I think he himself got from Jakob von Uexküll,⁷ is the metaphor for experience as whole as a semiotic web. We are all familiar at least a little bit with spiders and how they spin their webs and with what these webs do, namely, selectively trap other beings in the environment for the benefit and sustenance of the spider (which is why an ideology is the semiotic equivalent of reducing the human *Lebenswelt* to the praeter-human lines of an *Umwelt*, as we will see in Chapter 5). Of course, the scheme sometimes backfires, as I once had occasion to observe. I was standing in the dining room of Stonecliffe Hall looking out into a small rock garden thinking of these matters when a spider happened to descend into my field of vision on a lengthening silken cord that was intended to be one among the several already drawn threads of a nascent web. As the animal descended, a sudden gust of wind nudged the spider sideways into a tangle with already drawn strands from which the spider proved unable to escape, as I learned from the spider’s eventual death in the tangle. So this matter of spinning webs is not without an element of danger.

There are many approximations in the history of science and philosophy to the semiotic point of view. One of the easiest ways to approach the whole subject, indeed, is

4. Peirce 1908b: 8.343.

5. Bentham 1816; see Peirce c.1902a: 1.241–242. The term “cenoscopic” occurs sometimes also as “coenoscopic”; and for “ideoscopic” I have adopted the variant “ideoscopic”. See the discussion in Deely 2003.

6. Sebeok 1975.

7. “As the spider spins its threads, every subject spins his relations to certain characters of the things around him, and weaves them into a firm web which carries his existence” (J. von Uexküll 1934: 14).

to trace historically these approximations and developments, as I have sometimes tried to do. Here I want to leave any historical observations to a later, subsidiary point in our study (Chapter 7), in order to try to explain directly and with some exactness what this semiotic point of view is and how it develops into a perspective compassing the whole of our knowledge and belief and experience of reality.

One of the richest and fullest contemporary approximations to the semiotic point of view is the movement that is known today as hermeneutics. Springing again from the Continent (like rationalism and phenomenology, which it extends), this movement has come to challenge within philosophy the dominance of so-called linguistic analysis or linguistic philosophy in our universities. Important as it is (and I think it is very important), it yet belongs to what was characterized in Chapter 1 as the “minor tradition” within semiotics proper. “Semiotics proper” is identified with the point of view here being explained as compassing the prospective whole of experience and therefore the “major tradition” of intellectual history in general and philosophical development in particular as we move beyond and away from the sterile oppositions of “realism” versus “idealism” (terms that characterize, between them, the Greek, Latin, and classical modern eras of philosophical history).

The major tradition of semiotic development as thus distinguished has this peculiarity, as we have seen: it includes the minor traditions but not conversely. This inclusion holds true of hermeneutics in particular (even though hermeneutics owes little or nothing to Saussure).

The reason is that hermeneutics tends to fasten onto an aspect, to a level or a phase, of the process of interpretation, namely, the linguistically specific phase, a phase that is distinctively human, but that is developed within hermeneutics in ways that tend, by overemphasizing the distinctively human possibilities, to close the distinctiveness of human interpretation in on itself in a kind of autonomous and infinite regress of semiosis. This self-enclosure of the linguistically specific phase of anthroposemiosis disguises and distorts the larger phenomenon of anthroposemiosis in its proper being as a local manifestation or region within the larger semiotic whole that must eventually be, even within interpretation, as broad as the process of semiosis in nature itself. Even that limited aspect of this process we call anthroposemiosis, in any event, assuredly includes within its compass the achievements of the natural sciences no less than those of the human sciences to which hermeneutics is over-adapted.

The semiotic point of view cannot be established theoretically by considerations that not only start from but are also confined to activities species-specifically human. Our activities of interpretation require being situated within the biological community, if we are to see with any exactitude how language emerges as something unique, that is to say, species-specific, to the population of human organisms within a larger semiosis. For this, it will also be necessary to clarify and remove definitively the all but universal confusion

of language with communication. Such confusion is what led recent researchers, for example, to think they had taught language to chimpanzees. In fact their researches had merely seduced them into channeling the communications in which the animals had been engaged all along into new modalities designated by the researchers as “linguistic”, but which functioned for the animals to be trained (“taught language”) as nothing more than exotic communicative modalities to be mastered as a more or less necessary adaptation to environmental novelties being imposed upon them from without by their captors. (It was as if the medievals, on designating a given wall as “seen”, mistook “being seen” for a property of the wall taken in its own existence. The old debates about extrinsic denomination soon precluded any fallacy so crude, but those conversations of Latin times were long forgotten by the time trainers of Sarah and Washoe applied for research grants! The animals, of course, like every other form of life, had been communicating all along, for which language remained completely unnecessary. The designation of a communicative modality as language, moreover, does not in any wise make that modality linguistic on the side of the modality used, any more than the designation of a wall as seen locates a property on the part of the wall.)

In these terms, it may be said that the semiotic standpoint results in a framework that gives a context to just the sorts of things that texts provide and that hermeneutics exegetes. This standpoint is particularly useful in showing those working in the area of literary concerns that an exclusive preoccupation with artifacts and the human activities of interpretation at that level is simply too narrow for semiotics as a whole. When such a preoccupation is taken by itself it leads to autism. Not to perceive that a maturely developed semiotic point of view provides a larger context for narrativity as something implied in, rather than defined by, the semiotic standpoint *ab initio* (as an implication of its adoption, so to say) is behind the persistent confusion (in the works of Ricoeur, for example, and in popular academic culture generally) of *semiotics* with *structuralism*. In fact, as we have already seen, structuralism, far from being the whole of semiotics, is only an aspect of semiotics. Indeed, when structuralism is pursued *as if* it were the semiotic whole, its practitioners simply import into the fresh vistas of semiotics the stale consequences of modern idealism, wherein the only thing known by the mind in all of its contexts is what the mind itself constructs.

One of the main themes and consequences of semiotics in this regard is to provide a strategy for getting beyond the terms of the debate within philosophy, literature, and history generally between realism and idealism (comparable to the terms of the debate between “capitalism” and “communism”). I have seen audiences go into mild shock over the thought that one does not have to choose between the two, but can instead simply move beyond them.

I may put this another way. An essential function of the semiotic point of view, what I think will come to be regarded as its decisive achievement historically, is its having

grounded and given rise to a strategy for transcending the opposition in philosophy between the so-called realism of ancient and medieval times and the distinctively modern dilemma characterized by the label of idealism with its many forms (including “materialism”, “positivism”, and so forth). In other words, the requirements of semiotics cannot be met in the terms of any perspectives already established. The first requirement of semiotics is that it be developed on its own. The attempt to meet this requirement reveals from the outset that semiotics is capable of mediating a change of intellectual epoch and culture as profound and total as was the separating of medieval from ancient Greek times, or the separating of modern times from the medieval Latin era.

The reason for this is that a new definition and understanding of reality, of what we mean by “the real” as providing a focus of concern for and within human experience, is implicit in the standpoint of semiotic. Along with this new or redefinition of reality goes a dramatic paradigm shift in our notion of what is “objective” in its proper contrast with “subjective” being and “subjectivity” of every kind. Something of this has already come to light in our opening discussion. Much more will come into view in the chapters that follow, to be explained at every point in terms that have their bases in each person’s own experience.

Thus I hope to show how the semiotic point of view naturally expands, given the simple realization stated above, to include the whole phenomenon of human communication—not only language—and, both after and as a consequence of that, cultural phenomena as incorporative of, as well as in their difference from, the phenomena of nature. The comprehensive integrity of this expansion is utterly dependent upon the inclusion of linguistic phenomena within the scheme of experience in a way that does not conceal or find paradoxical or embarrassing the single most decisive and striking feature of human language, which is, namely, its power to convey the nonexistent with a facility every bit equal to its power to convey thought about what is existent.

Let me make an obiter dictum on this point. When I was working at the Institute for Philosophical Research with Mortimer Adler on a book about language (i.1969–1974, a collaboration which did not work out), I was reading exclusively contemporary authors—all the logical positivist literature, the analytic philosophical literature, all of Chomsky that had been written to that date—in a word, the then-contemporary literature on language. And what I found in the central authors of the modern logico-linguistic developments—I may mention notably Frege, Wittgenstein, Russell, Carnap, Ayer, and even Brentano with regard to the use of intentionality as a tool of debate⁸—was that they were mainly intent on finding a way to assert a one-to-one correspondence between language and mind-independent reality and to say that the only time that language is really working is when it conveys that correspondence. In fact, however, much of what

8. Deely 1975, 1978.

we talk about and think about in everyday experience is irreducible to some kind of preajacent physical reality in that sense. There is no atomic structure to the world such that words can be made to correspond to it point-by-point. Nor is there any structure at all to which words correspond point-by-point except the structure of discourse itself, which is hardly fixed, and which needs no such preajacent structure in order to be what it is and to signify as it does.

It is wonderful to look at the history of science and culture generally from this point of view, which is, moreover, essential for a true anthropology. The celestial spheres believed to be real for some two thousand years occupied huge treatises written to explain their functioning within the physical environment. Other examples include more simple and short-lived creatures that populate the development of the strictest science, such as phlogiston, the ether, the planet Vulcan; and examples can be multiplied from every sphere. The complete history of human discourse, including the hard sciences, is woven around unrealities that functioned once as real in the thinking and theorizing and experience of some peoples. The planet Vulcan (my own favorite example alongside the canals of Mars) thus briefly but embarrassingly turned up as interior to the orbit of Mercury in some astronomy work at the turn of the last century. But Vulcan then proved not to exist outside those reports at all. The objective notion of ether played a long and distinguished role in post-Newtonian physical science—as central in its own way as the celestial spheres were in the Ptolemaic phase of astronomy's development—before proving similarly to be a chimera.

So the problem of how we talk about nonexistent things, where nonexistent means nonexistent in the physical sense, is a fundamental positive problem with which the whole movement of so-called linguistic philosophy fails to come to terms. This is not just a matter of confusion, nor just a matter of language gone on holiday, but of the essence, as we will see, of human language.

To understand this fundamental insouciance of language, whereby it imports literary elements of nonbeing and fictional characters even into the sternest science and most realistic concerns of philosophy, we will find it necessary to reinterpret language from the semiotic point of view. For this, it is not enough to recognize that language itself is a system of relationships and contrasts between elements. We shall see that language itself as an objective network is part of a larger whole of objective relations, what I will call in Chapter 5 the *Umwelt* or "objective world" of experience integrally taken, in relation to which the linguistic network exists symbiotically—that is, as itself feeding upon and being transformed by the structure of experience as a whole in its irreducibility to the physical environment. In a word, it will be necessary to see how language is a form, but only a form, of semiosis and of semiosis only in its anthroposemiotic modality.

I will proceed as follows. First I will outline in Chapter 3 the basic subject matter of semiotic inquiry, which is the activity proper to signs, or semiosis. This, indeed, will

establish the outline for the book as a whole, indicating at the same time the scope of the perspective properly called semiotic and the myriad of methods—both traditional and not yet developed—necessary to mine this perspective in full. Then in Chapter 4 I will investigate what it is about the sign that makes it capable of acting or functioning in the manner peculiar to it.

From these general considerations providing the outlines of semiotics in its prospective totality, I will move in Chapter 5 to the specific consideration of the action of signs within our experience, because it is best to establish the basic notions as the elements of a science cenoscopically considered, that is to say, in terms that are derived from what is accessible to everyone, namely, common experience. At the same time, we will see that what gives experience its irreducible quality is something quite different from what makes experience specifically human. In this way, still proceeding cenoscopically, we will be able to reach, from within anthroposemiosis, by purely analytical means, the central concept of zoösemiosis as well,⁹ the *Umwelt* or “objective world”, inasmuch as

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9. The relation between anthroposemiosis and zoösemiosis thus is an intimate one. In the evolution of life, the human *Umwelt*, or *Lebenswelt*, developed out of, and as a species-specifically unique variation on, an *Umwelt* or structure of experience common more or less to any anthropoid and, in differing ways, to all animal forms. Nonetheless, not only because our concern here is with the basic concepts considered in a cenoscopic way, but also for the reason stated by Jakob von Uexküll (1934, 48: “the real problem, in all its implications, can only be analyzed in man”), it will be necessary for us to proceed the other way around. We will derive the basic notions of objective world from the side of human experience. These in hand, we are then in a position to construct the *Umwelt* of zoösemiosis analytically by subtracting the species-specific experience of stipulatability from the structure of human experience, and taking the remainder in its possible being as further specifiable—that is, able to be determined in this or that way—according as it is subsumed under this or that organismic structure within biology, such as idioscopic research shows to be required in each specific case.

The required procedure here has no generally recognized name in philosophical tradition, as far as I know. The basic procedure, as far removed from anthropomorphism as possible, nonetheless depends expressly on avoiding the mistake of behaviorism in American psychology. The biological inheritance of the human observer must itself be accounted for in the observer-observed equation as an interpretant in the semiosis. It is a question of recognizing the difference between naive and participant observation (T. von Uexküll 1982; Williams 1982).

I was first made aware of the requirements of the problem as an undergraduate, in a more obscure form and under a more unlikely label. My then-professor Ralph Austin Powell used to insist that a correct reading of the *De Anima* of Aristotle required interpreting the living world by way of what he called *humanesque analogy*, that is to say, by an analytical comparison from within our own experience of being alive. The term never caught on, and, as far as I know, Powell gradually abandoned the effort to make it clear in the abstract context of his philosophical conceptions.

Had Powell been a more empirically minded thinker, and familiar in particular with the work of Jakob von Uexküll, he would have found needed exemplifications readier to hand for effectively communicating the nature of the so-called “*humanesque analogy*”.

Sebeok (1989b: 81), himself a student of Jakob von Uexküll in this regard, summarizes the semiotic dimension of the observer-observed problem, where the observer is of the human species and the observed is of another grouping of life rather than a conspecific: “what may constitute a ‘sign’ in the *Umwelt* of the

the structure of human experience in its fundamental objectivity, though not in all of its specificity, is the common structure and factor in the experience as such of any animal.¹⁰

The newly opened panorama of semiosis at the plant level, both within and beyond the human environment as such, is as intriguing a concept as it is controversial, well deserving a serious reflection upon its place within the developing scheme of semiotics as a whole. No less intriguing—though even less well established—is the question of the distinctive causality of semiosis as it operates or might be operative in the physical universe at those levels—both microscopic and macroscopic—and in those spheres quite independent of plant life (as the animal and human zones of semiosis emphatically are not). Thus, in order to situate fully phytosemiosis in its preajacency to zoösemiosis and anthroposemiosis, it will be necessary to try in Chapter 6 to give some body to the highly abstract but central notion of “objective” or “extrinsic formal” causality—the causality that makes the action of signs *sui generis* and almost equally at home among existent and nonexistent actors of the here and now—as it applies also to the universe at large on the environmental side of the interaction of bodies.

With this our outline of the subject matter as a whole will be completed. We will have proceeded, in the main, synchronically, with no more than a few diachronic allusions. The allusions need to be drawn together, and this is the task of Chapter 7. The whole at this point will have made unmistakable something that is consequent upon the semiotic point of view, if not always unmistakably so, namely, the centrality of history as the anthroposemiotic transmission of culture to the doctrine of signs and to the proper life of human understanding even in its most “scientific” moments and synchronically conceived investigations. Thus, with the basic concepts synchronically and prospectively established, it will be time to close with some retrospective considerations, providing at least briefly and by way of an outline some remarks on the history of semiotics itself,

observed organism is inaccessible to the observer. The solution to this seemingly intractable dilemma, according to Jakob von Uexküll, presupposes that the would-be observer of the behavior of another organism begin by analyzing her own Umwelt before she can undertake productive observations of the behavior of speechless creatures. It is by way of such a comparative analysis that we are led back straight into the heart of semiosis in our human world.” Hence, we combine our initial treatment of zoösemiosis with that of anthroposemiosis and, subsequently, of physiosemiosis with phytosemiosis. The latter two, for all their differences, have in common that they are the levels at which the possibility of an objective world is rendered actual; whereas the former two, for all their differences, have in common that they are the levels at which objective worlds in their irreducible “reality” are constituted and diversified.

10. Thus, it is a matter of semiotics idioscopically pursued—pursued, that is to say, with all the panoply of special investigations and instruments science brings to bear—to say with regard to any given animal species, especially the more removed the forms are from the human (such as mollusks, balloon flies, etc.), how this common structure is actually determined and enhanced or diminished in the multiply species-specific patterns or ways of life actually found in the environment.

as its shape has begun to form in the mists of the past, from the standpoint of its basic concepts and the “theory” of semiotics.

So the outline for the remaining chapters is as follows: semiosis, signs, zoö-and anthroposemiotics, phyto-and physiosemitics, and the theory and historical outline of semiotics itself as a distinctive form of human consciousness. Such I deem to be the basics of semiotics, because these subject-areas or themes taken in concert show what is interesting and possible for semiotics as a phenomenon of intellectual culture. These are the concepts that establish the full amplitude of the semiotic point of view and reveal on the basis of that viewpoint the indefinite methodological possibilities for enriching in detail our understanding of a phenomenon as unified and yet as diverse as the action of signs, whereby indeed we exist in community and wherein the mind finds its proper food for thought.

SEMIOSIS: THE SUBJECT MATTER OF SEMIOTIC INQUIRY

If we ask what it is that semiotic studies investigate, the answer is, in a word, action. The action of signs.

This peculiar type of action, corresponding to the distinctive type of knowledge that the name semiotic properly characterizes, has long been recognized in philosophy in connection with investigations of the various types of physical causality. But in that connection, the “ideal” or objective factor, the pattern according to which the investigations themselves were able to establish the material, formal, and determinative dimensions of causality in the productive or “efficient” sense, appeared as something marginal. This objective factor pertains more to the observation than to the observed in its independent existence. Hence this factor was not clearly pertinent to the results of investigations which did not have as their aim the establishment of any essential connection as such between observer and observed, such as would make “observation”—an extrinsic formal connection between subject knowing and subject known—even possible in the first place.

Some of the most difficult and extended passages in Poinso's early attempt¹ to systematize the foundations of semiotic inquiry arise from the need to make this heretofore peripheral topic of natural inquiry central to the establishment of semiotic (see, for example, Questions 2–5 in Book I of his *Treatise on Signs*). More recently, in this same context of inquiry, Ralph Powell² has managed to indicate how central this

1. Poinso 1632a.

2. Powell 1986, 1988.

neglected and previously obscure type of causality is to the whole problematic of epistemology, once its semiotic character has been recognized.

Not until about 1906, however, was the peculiar action of signs singled out as a distinct field of possible inquiry in its own right, rather than through its adjacency with other lines of immediate investigation, and given a proper name. The investigator who singled out this field by giving it a name of its own was Charles Sanders Peirce, and the name he assigned to it was *semiosis*. At this point the doctrine of signs turned a corner in its development: Peirce saw that the full development of semiotic as a distinct body of knowledge required a dynamic view of signification as a process. Semiotics could not be merely a response to the question of the being proper to signs ontologically considered. Response must also be made to the further question of the becoming this peculiar type of being enables and sustains itself by. Symbols do not just exist; they also grow.

Semiosis as a type of activity is distinctive in that it always involves three elements, but it is even more distinctive in that one of these three elements need not be an actual existent thing. In all other types of action, the actors are correlative, and, hence, the action between them, however many there may be, is essentially dyadic and dynamical. For it to occur, both terms must exist. A car cannot hit a tree unless the tree is there to be hit, but a sign can signify an upcoming bridge that is no longer there. Galileo's eyes and telescope engaged in a dynamic interaction with light from the stars. But over and above this dynamic interaction he essayed opinions concerning the celestial spheres that turned out not to exist. And yet the nonbeing of these spheres contributed to Galileo's imprisonment and propositions concerning them were cited as grounds for the serious sanctions taken against Galileo by the authorities.

Peirce calls the action as such between existent things "brute force" or "dynamical interaction". It may be physical, or it may be psychological. In either case, the action takes place between two subjects of physical existence and is, in a terminology we shall be obliged to both clarify and insist upon along our way, always and irreducibly a *subjective interaction*. Subjective interactions, whether psychical or physical, are always involved in the action of signs, but they surround the semiosis as its context and condition, while always falling short of the action of signs proper. In other words, while the action of signs always involves dynamical interactions, dynamical interactions need not always involve the action of signs.

The distinctiveness of semiosis is unavoidable when we consider the case of two existing things affected in the course of their existence by what does not exist, but, if we understand what is distinctive about semiosis, that distinctiveness remains unmistakable even when the three terms involved in a semeiosis happen also to be all three existents. Peirce gives the example of the rise of the mercury in a thermometer, which is brought about "in a purely brute and dyadic way" by the increase of ambient warmth, but which, on being perceived by someone familiar with thermometers, also produces the idea of

increasing warmth in the environment. This idea as a mental event belongs entirely to the order of subjective and physical existence, no more and no less than does the rising mercury and the ambient temperature of the thermometer's environs. It is, as Peirce puts it, the "immediate object" of the thermometer taken as a certain type of sign, namely, one indexical of an environmental condition.

The object of the thermometer as a sign is the relative warmth of the surroundings. The object of the idea of the thermometer as a sign is no different. The thermometer, however, prior to being read is involved only in dynamical interactions. On being read a third factor enters in, the factor of interpretation. The thermometer on being seen may not be recognized as a thermometer: in that case, besides being a subject of physical interactions, that is to say, a thing, it becomes also a cognized or known thing, an element of experience or object. But, if it is both seen and recognized as a thermometer, it is not only a thing become object but also an object become sign. As a thing it merely exists, a node of sustenance for a network of physical relations and actions. As an object it also exists for someone as an element of experience, differentiating a perceptual field in definite ways related to its being as a thing among other elements of the environment. But as a sign it stands not only for itself within experience and in the environment but also for something else as well, something besides itself. It not only exists (thing), it not only stands to someone (object), it also stands to someone for something else (sign). And this "something else" may or may not be real in the physical sense: what it indicates may be misleading, if, for example, the thermometer is defective.

In this case, its immediate object, the idea it produces as sign, becomes in its turn a node of sustenance for a network of relations presumed to be physical but that in fact, because of the defective nature of the thermometer being observed, is merely objective. Here we encounter a primary phenomenon that semiotic analysis is obliged to take into account: divisions of things as things and divisions of objects as objects are not the same and vary independently, the former being determined directly by physical action alone, the latter being mediated indirectly by semeiosis, the action of signs.³

The immediate point to be noted is this: Divisions of objects as objects and divisions of things as things may happen to coincide, as when the thermometer seen and recognized is also functioning properly; or they may happen to diverge, as when the thermometer

3. The contrast between objective being and the subjective order of physical existence was noted early in the development of an explicitly semiotic consciousness, for example, in the work of Cajetan (1507). But its centrality to the doctrine of signs only gradually came into view. Like the geological fault presaging major changes in the lay of the land, the inherent difference between objective and physical existence at the heart of being made it inevitable that dynamical interactions, overall, would give rise to directional changes, and with them to transformations of crude atomic structures to the point where semiotic animals would wander where once cosmic dust and random interactions obtained. But this takes us too far from the simplicity of our example and the fundamental point it makes for the doctrine of signs.

seen and recognized is, unbeknownst to its interpreter, deceptive by defect. But, even when they coincide, the two orders remain irreducible in what is proper to them.⁴

4. It is for this reason that I have resisted the temptation of tying the basic categorical concepts and terminology of biosemiosis to the latest biological theories which have, for solid reasons (e.g., see Sagan and Margulis 1987, Margulis and Sagan 1986, 1986a), replaced the traditional two kingdoms with five (not unlike the manner in which the traditional five external senses provide a cenoscopic framework of discussion for psychology within which idioscopic research is able to demonstrate that there are actually more refined discriminations which validate recognition of a greater number of sensory channels). At the same time, the intrinsically semiotic character of the new divisions, resting as they do on the introduction of symbiosis and reciprocity into the heart of the evolutionary process along with the selection of mutations, makes of these new concepts an extremely fertile ground for the further development of semiotic consciousness, and an inevitable frontier that semiotic theory cannot for long delay exploring.

Nonetheless, because these results are idioscopic rather than cenoscopic (as Sagan and Margulis 1987 put it, "Although many plant and animal symbionts are known, symbiosis and its fundamental role in evolution really become conspicuous in the microcosm"), and because the divisions of semiosis pertain to the objective order directly and to the physical order indirectly (the very opposite of the divisions of organismic types traditionally sought by biology as a natural science), a detailed attempt to incorporate these theories seemed to me premature for the project of the present work. As we noted in our collaborative "manifesto" of 1984 (Anderson, Deely, Ransdell, Sebeok, T. von Uexküll: 42-43), even though, "with the five-kingdom classification, 'plants' and 'animals' return through the looking glass to become strictly folk taxa once more", it does not follow that what is called for is to "simply reparcel semiosis according to the putative five kingdoms, not only because these are provisional, as we noted above, and will doubtless remain so for some time, but because, more fundamentally, they may not even be interesting or significant in sorting out different *types* of semiosis".

From the point of view of basic semiotics as something to be achieved first cenoscopically and established as equally important for the understanding of the *literati* and the *scientisti*, what is essential is first to grasp macroscopically the difference cognition makes within the order of living things, and, within cognition, the proper role of language within experience of the universe with its natural, social, and cultural elements as these bear on "the difference between a naive and a participant observer".

The realization that the latter is not so much, as Thure von Uexküll puts it (1982: 12), a "choice" as it is the actual situation of our species (within which the illusion of the naive observer arises) is what a grasp of semiotic fundamentals makes unavoidable. This realization, as he well says (*ibid.*), "will determine our understanding of animals, plants, and human beings", along with the physical surroundings of life, all the way to the stars.

Within this basic perspective, not only is there all the room in the world for the further refinements and adjustments of idioscopy of whatever kind, but such refinements and adjustments become inevitable, beginning with the redistribution of biological life forms according to new requirements and discoveries of research which bring out, in the manner of the new views in biology, the essentially semiotic character of the organismic development of all the plants and animals. It is not only the "self", as Sebeok has pointed out, that is a semiotic phenomenon: the "other" is no less semiotic, making of the biosphere in its totality "a flowing pointillist landscape where each dot of paint is also alive" (Sagan and Margulis 1987: 33).

Thus, the temporary bypassing of detailed discussion of the latest perspectives in evolutionary biology here is tactical, not strategic. Far from obviating the need to integrate the sciences no less than the humanities into the theoretical texture of semiotic development, the present work intends to make that need all the more evident and pressing, as Chapter 6 in particular will show. (And it hardly bears reminding that, in modern times, the stance of the naive observer and the population of scientists have tended to be roughly coextensive or, in linguistic terms, synonyms.)

The idea of surrounding temperature produced by the thermometer as sign represents to the interpreter of the thermometer something that itself is neither the idea nor the thermometer, namely, the presumed condition of the environment indexically represented by the thermometer. The idea as a mental representation, that is to say, a psychological reality, belongs to the order of subjective existence and is the immediate object of the thermometer as sign. But, within that order, the idea also functions to found a relation to something other than itself, namely, a condition of the environment surrounding the thermometer, which condition is both objective (known) and physical (something existent besides being known), presuming the thermometer accurate; or merely objective but deviant from the physical situation rather than coincident with it, presuming the thermometer defective. As founding this relation, in every case objective, in some cases coincidentally physical as well, the idea itself produced by the thermometer has in turn produced “the proper significate outcome” of the thermometer as sign. This Peirce calls the *interpretant*, a unique and important notion, the key to understanding the action of signs as a process, a form of becoming, as well as a kind of being, over and above the unique essential structure that makes signification possible in the first place.

Peirce suggests⁵ that “it is very easy to see what the interpretant of a sign is: it is all that is explicit in the sign itself apart from its context and circumstances of utterance”. In the case at hand: the sign is the thermometer; the context and circumstances of its utterance are the ambient warmth producing a certain level of the mercury correlated—accurately or inaccurately, as we have seen—with a scale, the whole of which apparatus is seen and recognized as a temperature measuring device; and what is explicit in the sign itself apart from this context and these circumstances is representation of something other than the thermometer, namely, the ambient temperature, as being presumably at what the thermometer indicates it to be, although this may be wrong due to defect in the mechanism. In other words, all that is explicit in the sign itself apart from its context and circumstances of utterance is “its proper significate outcome”, the objective element of the situation as involving representation of one by another, irreducible to the dynamical interactions involved, and establishing channels and expectations along which some of the interactions will be diverted in ongoing exchanges.

In our example, the idea of the thermometer enabling the thermometer to function as a sign was in the first instance a mental representation. The interpretant of a sign, however—and this is a very important point—“need not be a mental mode of being”, nor, as we have seen, is it as mental mode of being that the idea produced by the thermometer functions as interpretant. Whether a given interpretant be an idea or not, what is essential to it as interpretant is that it be the ground upon which the sign is seen to be related to something else as signified, which signified in turn becomes a sign relative to other

5. Peirce c.1906: 5.473.

elements in the experience of the interpreter, setting in motion the chain of interpretants on which semiosis as a process feeds. In other words, what is essential to the interpretant is that it mediates the difference between objective and physical being, a difference that knows no fixed line. This is the reason why, at the same time, the triadic production of the interpretant is essential to a sign, and the interpretant need not be a mental mode of being, although, considered as founding a determinate relation of signification for some animal, it will be.

We see now with greater clarity the difference between the action of signs and the action of things. The action of signs is purely objective, always at once involving and exceeding the action of things as such, while the action of things as such is purely subjective or, what comes to the same thing, physical or psychic and restricted to the order of what exists here and now.⁶

Wherever the future influences a present course of events, therefore, we are confronted by semiosis. Never confined to what has been or is, semiosis transpires at the boundary between what is and what might be or might have been. Linguistic signs may well be “the ideological phenomenon par excellence”, as Volosinov said;⁷ but the action of signs, which provides the general subject matter of semiotic inquiry, extends well beyond what we call “language”, even though it is only through language that this range can be brought to light for us as inquirers. Why this is so we shall eventually see.

In order to appreciate the privileged and at the same time restricted role of linguistic signs in semiosis, however, it is necessary to get these peculiar signs into a larger perspective revealing something of the other processes, no less semiotic, on which the possibility and actuality of linguistic semiosis depend. For this purpose, it is useful to outline in broad terms a number of levels within semiosis. These levels, of course, can be further distinguished indefinitely for purposes of specialized research and investigation. Here it will be enough to bring out in a synoptic way the prospective scope of semiotic inquiry, an effort that should also have the effect of neutralizing the vestigial inclinations to positivism and modern idealism that often in practice corrupt the semiotic standpoint by assimilating it to what is irretrievably presemiotic in the previous era and most recent epoch of philosophy.

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6. Peirce's way of putting this is obscure, outside the framework of his technical semiotic: thirdness, he says, always presupposes the brute interactions of secondness which also always presupposes the dream world which secondness differentiates, firstness. Thus, on the basis of his “recognition of ten respects in which Signs may be divided”, Peirce concludes (1908b: 8.343; see also 1904) that “since every one of them turns out to be a trichotomy, it follows that in order to decide what classes of signs result from them, I have 310, or 59049, difficult questions to carefully consider”. For present purposes, and following the example of Peirce himself at this point (who did “not undertake to carry [his] systematical division of signs any further”, but left that “for future explorers”), clarification of this technical way of phrasing the situation may safely be left to the exegetes of the Peircean texts. The aim here is to reach a more general audience.
 7. Volosinov 1929: 13.

The highest level of semiosis so far as our experience goes is also the one closest to us: *anthroposemiosis*. Looked at one way, anthroposemiosis includes all of the sign processes that human beings are directly involved in, and, looked at another way, names those sign processes which are species-specifically human. From the latter point of view, anthroposemiosis includes first of all language, and secondly those sign systems that come after language and further structure perception and modify the environment even for species of animals other than human, although the understanding of these postlinguistic changes in what is proper to them is possible only in and through language.

For this reason, language has come to be called in Eastern European circles of semiotic development the “primary modeling system” and the rest of human culture and civilization a series of “secondary modeling systems”. As Sebeok in particular has taken pains to point out (1987), however, this way of describing the situation is not entirely satisfactory, because it is grounded, as is apparent, in a derivative understanding of anthroposemiosis. More fundamentally and inclusively, anthroposemiosis comprises, as we have said, all of the sign processes that human beings are directly involved in. From this point of view, language itself is already a secondary modeling system, not the primary one, even though, relative to the distinctively human cultural traditions and developments of civilization, language is the proximate enabling medium and sustaining network of semiosis. Proximate to language, however, is the larger semiotic web of human experience that intricately interweaves linguistic semiosis with perceptual semioses shared in common with other biological species. This larger web delicately depends upon endosemiotic networks within the body whereby the human organism itself is sustained by a complex network of symbioses without which the human individual would perish, and which network proves in its own right to be a thoroughly semiotic one.

In addition, the interaction between human being and physical environment—whereby, for example, a person noting the sky anticipates stormy weather and prepares accordingly—gives rise to further strands of the semiotic web linking the human being not only with conspecifics and not only with other animals, but also with the general realm of physical surroundings in the largest sense. From this point of view, anthroposemiosis forms a seamless whole with all of nature, and the appropriate metaphor is not that of language as a primary modeling system but the ancient one of *anthropos* as *microcosmos*. Anthroposemiosis is the most complex form of semiosis not because it harbors unique modes of semiosis, beginning with language, but because, in addition to harboring unique developments, it harbors at the same time all the other semiotic developments as well and depends upon them in achieving whatever is unique and specific to itself, beginning with language.

The semiotic processes of perception and sensation that are common to other animals besides the human define the level and zone of what Sebeok and Wells first characterized

as *zoösemiosis*.⁸ To their original coinage I add the umlaut, to prevent a misunderstanding that I have actually encountered, whereby this rich realm has been unwittingly reduced in hearers' minds to the study of sign systems among captive animals.

Like anthroposemiosis, zoösemiosis can be regarded from two standpoints. From one point of view, zoösemiosis is concerned with the overlap of semiotic processes shared between human animals and other animal forms. But this point of view provides only part of the story, for each animal species, not only the human one, develops also species-specific semiotic modalities, and these too are the province of zoösemiotic investigations. The splendid work of von Frisch⁹ unraveling the species-specific semiosis of bees, or of Kessel¹⁰ in uncovering the species-specific symbolic component in mating activities of balloon flies, provide landmark examples of zoösemiotic analysis beyond the study of semiotic systems shared between human and other animals (although humans do indeed mate and benefit, too, from the dance of bees). From the point of view of zoösemiosis as concerned with the study of species-specific semiotic modalities developed among the biological forms other than human, we can see an entire regrouping of naturalist studies (which have their own distinguished traditions) under a new label more appropriate to and specificative of what naturalists have been trying to accomplish all along. Like anthroposemiosis, zoösemiosis comprises a series of microcosms and species-specific objective worlds as well, each one entangled in natural processes of physical interaction (secondness) as well as in semiotic processes of objective interaction within and across species. The collective whole forms an interlocking network of irreducibly semiotic relations, many of which are physical as well as objective, many of which are purely objective in specifically diverse patterns.

Most recently, a third macroscopic realm and level of semiosis within nature has been surveyed and established, under the rubric of *phytosemiosis*, the semiotic networks of plants, by the distinguished work of Martin Krampen and his coworkers. Here again a twofold standpoint is possible. There is undoubtedly semiotic interaction between plants and various species of animals, as the many insect victims of plants such as the notorious "venus fly-trap" mutely testify. It is surely remarkable, for example, that many plants grow in a form that is sexually deceiving to species of insect on which the propagation or nutrition of the plant depends. The plant world is replete with these astonishing examples of the extrinsic formal causality at the heart of sign activity. But there is also the question of semiosis within the plant world itself, as the recent discovery that trees are able to inform one another of zones of infection, for example, raises.

8. Sebeok 1963: 74.

9. von Frisch 1950.

10. Kessel 1955.

Here we reach a boundary line, which we may nonetheless cross by means of abduction, that is, the formulation of some hypothesis suggesting new ideas for the further extension of the boundaries of semiotic activity to include the realm of so-called inorganic nature, both chemical and physical. These ideas need to be developed, tested, and further refined or even rejected by whole teams of workers.

Besides the three main levels of semiosis that have been briefly described above and are firmly established regions of sign activity, there is reason to think that sign activity has also been at work in an anticipatory way even at inorganic levels before the advent of life in nature, as is suggested by the formula established by Poinso: "it suffices to be a sign virtually in order to signify in act". This formula derives from carefully considering the fact that all that pertains to secondness and dyadic interaction in semiosis belongs to signs strictly through what in them provides the foundations or fundaments whence result or might result relations of representation of another in which signifying consists formally as thirdness.¹¹ Sign activity in the inorganic realm would, according to this formula, occur less visibly and in the background, then, but virtually and as a matter of fact throughout the material realm.

On this hypothesis, there is not only the macroscopic realm of *biosemiosis* whose three main levels have been outlined and named, with plenty of indication of microscopic subcurrents equally semiotic, as in the case of endosemiosis stated by Sebeok. There is also the more inclusive macroscopic realm of evolution in general, let us call it *physiosemiosis*, an activity virtual by comparison with biosemiosis but no less replete with the objective causality whereby the physical interaction of existing things is channeled toward a future different from what obtains at the time of the affected interaction. This is a process whereby first stars and then planetary systems develop out of a more primitive atomic and molecular "dust", but these systems in turn give rise to conditions under which further complexifications of atomic structure become possible. Some of these possibilities, inevitably, become actual as well (such as an oxidizing atmosphere, to choose a local example), continuing the process, as I have shown elsewhere (shown, that is, as definitively as anything can be shown in the absence of directly observed data),¹² along an overall trajectory inevitably pointing to the establishment of biosemiotic phenomena.

On this hypothesis, semiosis, as providing the subject matter of semiotic investigation, would establish nothing less than a new framework and foundation for the whole of human knowledge. This new framework and foundation would embrace not only the so-called human and social sciences, as we have already seen from the partial tradition

11. Poinso 1632a: 126/3-4.

12. In current parlance, it is the vehicle of the sign, rather than the sign itself formally, that, for example, can be washed away in a flood, fall over on something passing by, or, at another leave, "produce a sense impression", and so forth.

13. Deely 1969.

of semiology after Saussure, but also the so-called “hard” or natural sciences, precisely as they, too, arise from within and depend in their development upon experience and the processes of anthroposemiosis generally, as the wholistic tradition of semiotics after Peirce has begun to outline.

In many basic respects this is a contemporary development, but it draws its nourishment from long ago and has its own distinguished lineage of pioneers and precursors. In particular, we see here a contemporary development fulfilling the prophecy of Winance:¹⁴ “It is in the tradition of Peirce, Locke, and Poinset that Logic becomes Semiotic, able to assimilate the whole of epistemology and natural philosophy as well”. In Winance’s remark, “epistemology” is to be taken as a synecdoche for the human sciences, and “natural philosophy” as a synecdoche for the natural sciences including, as Aquinas noted,¹⁵ “even metaphysics”. Representing our answer to the question of what semiotics investigates integrally, that is, including in a single scheme both what is firmly established and what we abductively extrapolated, we may outline the overall subject matter of semiotic investigations, as in Figure 1.

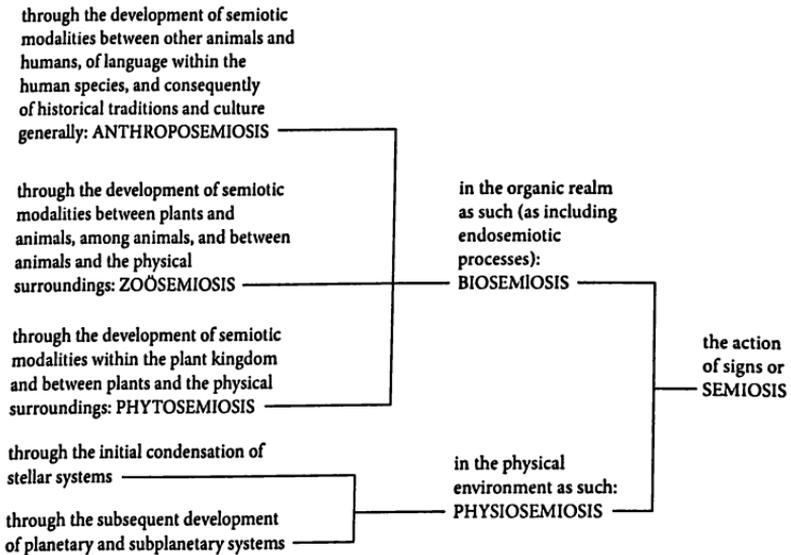


Figure 1 The Levels of Semiosis (columns of table read from left to right)

14. Winance 1983: 515.

15. Aquinas c.1269: *Commentary on Aristotle's Metaphysics*, Book I, lectio 1, n. 2.

Regardless of our hypothetical extension of semiosis beyond the boundaries of the biological community—whether, that is, we wish to stick with the firmly established levels or wish also to consider the possibilities of a physiosemiosis in nature antecedent to and subtensive of the later and more restricted phenomena of biosemiosis—what is clear at this point is that semiotics is the name for a distinctive series of investigations, distinctive for the same reason that any investigation is distinctive, namely, by reason of what it studies, in the present case, semiosis. But how is such an activity as semiosis possible in the first place?

ADDENDUM TO CHAPTER 3

THE INTERPRETANT AS SUCH AND THE IDEA AS SIGN

1. The Interpretant

Let us consider in more detail the matter of explaining the *interpretant*, the key idea introduced by Peirce for the purpose of explaining the process of semiosis. This, not the idea of the sign-relation as triadic, is the theoretical point which marks the principal advance of contemporary semiotic consciousness over the achievements in this area of the Latin Age; hence it is not surprising that the spelling out of this notion proves to be one of the greatest, if not the greatest, of difficulties for contemporary semiotics. How to explain satisfactorily the notion of interpretant, a notion that is the fulcrum of semiosis in the writings of Peirce, and, in my mind, of semiotics as the doctrine of signs. Doctrine, after all, is measured by its object, in this case semiosis, the action of signs. And the action of signs is precisely the production, above all, of an interpretant as its proper effect.

The “intended” or, rather (for, even within anthroposemiosis, not all signs by any means convey an intention), *proper* effect of a sign, of course, is to signify, i.e., to make present an object other than itself. This object may or may not, as we have seen, be a thing. An interpretant, accordingly, is the reason for the sign’s being seen as related to something else as signified. An interpretant may or may not be itself mental, and may in turn become an object signified with *its* own interpretant, and, as an object signified, of course, it may also become a sign with its own object and further interpretant, and so on, in a cycling spiral of unending semiosis coextensive with our life, even though any particular aspect of the total process has definite resolutions and outcomes. The process as a whole is unlimited, not the stages and steps in the process. Otherwise, of course,

there would be no *process* at all but only a vortex of signs failing on every side to signify, a kind of black hole illuminating nothing and obliterating everything.

What is essential to the interpretant is that it mediates the difference between physical and objective being, a difference that knows no fixed line. This is why the triadic production of the interpretant is essential to the sign, while, at the same time, the interpretant need not be a mental mode of being, although, considered as founding a determinate relation of signification for some animal, it will indeed involve the mental.

We need to clarify at this juncture two points. First, how, as a result of the action of signs, a mediation of the objective is effected vis-à-vis our situation in the environment as physical entities which happen to know; and, second, what is unique about the interpretant when the spiral of semiosis happens to turn upon a mental event whether emotional or ideal (although especially the interpretant in its intellectual character distinguishes anthroposemiosis).

1.1 Mediation of the Objective

The first point I would like to clarify by expanding on the analysis just presented in the opening pages of Chapter 3, covering some of the same ground in more careful detail. The idea of surrounding temperature produced by the physical apparatus we call a thermometer when that apparatus functions as sign represents to the interpreter of the thermometer something that itself is neither the idea nor the thermometer, namely, the condition of the environment presumed indexically represented by the thermometer. The idea as a mental representation, that is to say, a psychological reality, belongs to the order of subjective existence as the immediate object of the thermometer as sign. (As Peirce put it [c.1906: 5.473]: “In these cases”—the rise of mercury in a glass tube thermometer or the bending of the double metallic strip in a metallic thermometer as indexical of an increase of atmospheric pressure—“a mental representation of the index is produced, which mental representation is called the immediate object of the sign.”) But, within that subjective and physical order, the idea also functions to engender or found a relation to something other than itself, namely, a condition of the environment surrounding the thermometer. This condition admits, now, of two possibilities: 1. it is both objective (known) and physical (something existent besides being known), presuming the thermometer accurate; or 2. it is objective but deviant from the physical situation rather than coincident with it—it is merely objective—presuming the thermometer defective. As founding this objective relation through which the interpreter is put in a position to form an opinion or judgment, whether correct or mistaken (because the relation is in every case objective, but only in some cases coincidentally physical as well), about the represented state of affairs, the idea itself produced by the thermometer has in turn produced “the proper significate outcome” of the thermometer as sign, i.e., it has produced what Peirce calls the *interpretant*.

From the situation thus far described Peirce (c.1906: 5.473) considers that “it is very easy to see what the interpretant of a sign is; it is all that is explicit in the sign itself apart from its context and circumstances of utterance”. The *sign* is the thermometer. The *context and circumstances of its utterance* are the ambient warmth or atmospheric pressure producing a certain level of the mercury correlated—accurately or inaccurately—with a scale, the whole of which apparatus is seen and recognized as a temperature measuring device. And *what is explicit in the sign itself apart from this context and these circumstances* is representation of something other than the thermometer, namely, the ambient temperature objectively taken, as being presumably what the thermometer indicates it to be (although this may be wrong due to defect in the mechanism). In other words, all that is explicit in the sign itself apart from its context and circumstances of utterance, what is in Peirce’s description the “proper significate outcome” of the sign acting as sign, is *the objective element of the situation as involving representation of one by another, irreducible to the dynamical interactions involved, and establishing channels and expectations along which some of the interactions will be diverted in ongoing exchanges* (if the temperature is high, you are not going to wear a heavy coat, etc.).

Notice especially that, although the idea of the thermometer enabling the thermometer to function as a sign was in the first instance a mental representation, it is not as a mental mode of subjective being that the perception produced by the thermometer functions in bringing about the interpretant. On the contrary, the idea of the thermometer enables the physical apparatus as perceived to educe yet another idea having as *its* object, rightly or wrongly, a certain ambient environmental temperature; and, as Peirce rightly says (*ibid.*), “this object does triadically produce the proper effect of the sign strictly by means of another mental sign”. The irreducibility of the triadicity in the case appears when we schematize the factors involved. The situation requires a diagram of at least two triangles (Figure 2):

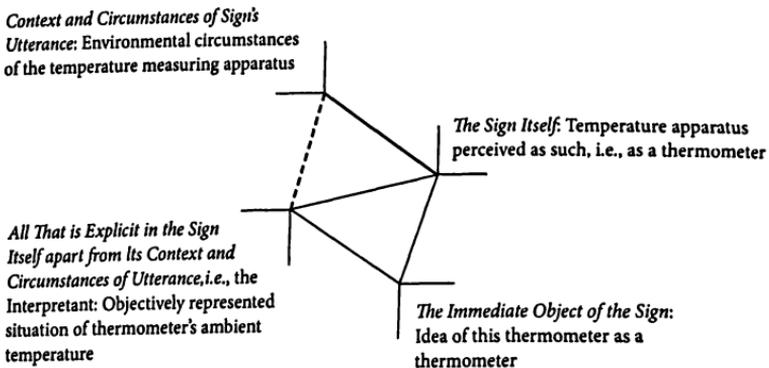


Figure 2 The Irreducibility of the Action of Signs

These two triangles collapse into one when the thermometer reading is in fact accurate, i.e., when the thermometer is both correctly read and properly functioning (for then the objective context and circumstances and the physical context and circumstances in this particular coincide). But the triangles stand as two indeed when the thermometer reading is false, whether through an incorrect reading or a faulty mechanism or both (a consideration which would enable us to multiply the semiotic triads at play to three or four, without changing the principle that the sign always brings about its result triadically, as a mediation between physical and objective being). What is decisive is that, on either assumption, whether the thermometer reading be taken as true or whether it be taken as false, the intervening variable of signification prevents its reduction to the forces acting upon the physical apparatus of the thermometer “in a purely brute and dyadic way”. Semiosis, not error, introduces a third factor. Error may help to make the third factor evident, but removal of error does not at all take the third factor away. This is why I said in above that “the distinctiveness of semiosis is unavoidable when we consider the case of two existing things affected in the course of their existence by what does not exist, but, if we understand what is distinctive about semiosis, that distinctiveness remains unmistakable even when the three terms involved in a semeiosis happen also to be all three existent.”

1.2 The Interpretant as Mental Event

The ideas of our minds as psychological conditions and states are signs, inasmuch as all thought is through signs. But, as we have seen, every sign can also be an object or an interpretant, depending on its momentary place in a given spiral of semiosis. In addition, we need to note that ideas are not like atoms or material particles of any type. Peirce’s synechism (his doctrine of continuity), whatever is to be said of it vis-à-vis the realm of material structures and objects as part of the physical environment, holds absolutely in the psychological realm of ideas and emotional interpretants, both as regards its conscious and unconscious dimensions which, as we now know, shade at times imperceptibly into one another. The “idea of thermometer” is not a discrete event, but a disposition in us toward recognizing certain physical structures encountered in perception and, by recognizing them, to enable them to be also signs in their own right, that is to say, objects which are also signs, or, more exactly, sign vehicles.

What is unique about ideas as signs is simply that, of all the things in our universe of experience, they are the only items that are signs before being objects, interpretants, or anything else at all. Every object, though not every aspect of every object (if what we have observed above about the unique status of sensations analytically precised within perception and intellection is accurate), presupposes a sign, and every sign an interpretant. The prime interpretant in the case of cognitive organisms, of course, is the biological nature of the organism itself, which determines indeed not what sensations

will be actual, but what will be possible in the first place for perception to elaborate and, in our case, intellection to assimilate as best it can. Thus “man” or “woman”, no less than “male bat” or “female bat”, provides the initial interpretant for the signs we call ideas, and, in this regard, all that is unique about ideas as specifically anthroposemiosis is that they eventually open unto the universe in its totality as their Object. This openness in principle to totality is not at work for animals unable to thematize the difference between Umwelt and physical environment as such.

Common to all ideas, thus, is their initial formation and status as signs *before* they can *subsequently* function as either objects in reflective awareness or interpretants in awareness of environmental objects as signs in their own right, whether “natural” or “conventional”. What is unique about ideas thus is that they *begin* as signs, whereas all other signs *begin* as objects. Thus, what is unique about the interpretant as a mental event is that it was, in its initial being, always a sign, not an object nor an interpretant, as it will subsequently become as the semiosis advances. This is not true of any other interpretants; neither is it true of objects which are such (logically speaking) before becoming signs. The first interpretant is the nature of the organism, its biological heritage; the first object is the environment aspectually influencing the organism through its cognitive channels; but the first sign is the idea objectifying the environmental influences as desirable or undesirable, i.e., constituting experience in the first place. Subsequent ideas will greatly elaborate the objective structure of experience and progressively differentiate it from the being of the physical environment. But every idea will stand in the first place as sign to an object signified, in the absence of which that object would dissolve into bare sensations and, beyond that, disappear entirely.

The interpretant as mental event is thus like the world of objects in one particular: both alike depend entirely on the being of ideas as signs. At the origin of the objective world of experience, at the base and at every subsequent turn of the spiral of semiosis through which experience is constructed, lies the idea as sign, the sign which is a sign before it can be either object or interpretant, the sign every perceptual or intellectual object as such presupposes in order to be as object. Thus we need to examine the “idea of idea” in order to understand the foundation of semiosis, not in nature (which is another question entirely, though still involving objective being in its contrast with the physical, and which we here reserved for treatment in Chapter 6 below), but insofar as it involves experience in any cognitive sense.

2. The Idea as Sign

We saw above that such physical structures as smoke and bones are sometimes called “natural signs” fundamentally owing to the fact that their very physical constitution serves to guide the formation in experience and cognition of objective relations. These

relations duplicate the essential structure of intersubjectivity which at least at one time obtained independently of and prior to the experience in which such objective relations are here and now formed. In fact, it is the relation itself so formed which constitutes the sign in its actual being as sign, so that, technically speaking, the smoke and bones are not signs but rather sign-vehicles, or are signs *fundamentally* but not *formally*.

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 which relation, hence, the foundation becomes merely virtual or material as a foundation and is then experienced instead simply as a *self*-representation or object.

The concept or idea, indeed, the percept of a pure zoösemiosis no less, is a sign-vehicle in just this sense, i.e., it is a subjective structure or modification which according to its intrinsic being guides the formation of a relation to an object signified, and as such the idea is a sign fundamentally rather than formally. But, unlike the fossil bone or plume of smoke which can exist without being apprehended or known, the idea exists only insofar as it guides an apprehension to the awareness of this rather than that object: it is the knowing that forms the idea, so that the idea cannot be *except* as an idea *of* its object. The bone, of course, is the bone *of* some animal and the smoke *of* some fire; but here the *of* refers to the *productive source* of the bone or the fire, whereas the *of* in the idea refers not to the mind as producing the idea but to *that of which the idea makes the mind aware in producing it*. In other words, the *of* distinctive of the idea as such refers not backward to the idea's productive source as *my* idea or *your* idea, but outward to the objective term of an experience in principle suprasubjective and, insofar, accessible to others besides the one here and now forming the idea making that object present.

It is necessary to be quite precise in symbolising this situation. Up to now we have spoken of relation as an intersubjective mode of being, because up to now we have been considering relations as able to obtain in the physical as well as the objective order, and in the physical order a relation always requires a physically existent source as well as a physically existent terminus in order to obtain. Whence, even though there can be relations of measured to measure in the order of physical existence, as when a meteor crater reveals (to the sufficiently cognizant observer) the weight, size, speed, and perhaps even composition of the meteor, or a gunshot wound reveals the calibre of the weapon and angle and distance of its firing, these relations as dyadic are necessarily intersubjective, grounded in action and reaction, and are never strictly one-sided in the sense that cognitive relations can be. For the cognitive relation is not dyadic but irreducibly triadic, and the dyad of mind as forming the idea and ideas as formed by the mind cannot but engender an irreducible triad, because the very formation of an idea necessarily guides the mind to an awareness of the formal correlate of the idea as sign,

namely, the object represented—the object to which the idea as sign points as to what is signified. The content of the idea is a representative content, to be sure, but a content representative of *something the idea is not*.

We see here an essential flaw in Jakobson's accepted formula for the sign as *aliquid stat pro aliquo*. In phrasing his formula thus, Jakobson has left open a Cartesian interpretation of the sign, and of the idea as sign. For an object stands within experience for something, namely, itself, regardless of whether it is a thing or not, and even when it misleads us in this particular; by contrast, a sign stands within experience only for something *other* than itself, something which it itself is not, and insofar as it fails to do this it fails or ceases to be a sign. A formula more exact than *aliquid stat pro aliquo*, therefore, is *aliquid stat pro alio*: a sign is anything that stands for something other than itself.

The same weakness that mars Jakobson's version of the classical formula, indeed, can also be detected in the late Latin designation of the concept as a *signum formale*. For this designation, while justified by the fact that the idea cannot exist *without* founding a relation to an object (see Deely 1975; Haldane 1996), is also problematic inasmuch as the idea (or concept) in itself is not the *suprasubjective* referral (or ontological relation) as such required for the sign to achieve *renvoi* (the distinctive referral of the mind to another in which signification consists) but only the *subjective* referral or fundament (the transcendental relative ground) on which that relation—in which alone the sign *formally* consists—is or can be based. The existential inseparability of the two in the case of the idea (which is why an idea, in contrast to, say, our fossil bone, has no existence apart from its semiotic one) does not gainsay the modal real distinction of relation from its foundation, or the fact that the foundation as such is neither *suprasubjective* nor (still less) *intersubjective* but *subjective*. By speaking of *the concept* as a "formal sign", the scholastic analysis did not foreclose the very confusion into which Jakobson's version of the classical Latin formula for *signum* feeds; and indeed we find, in Pedro da Fonseca, for example (1564: lib. I, cap. VIII), the very reduction of sign to sign-vehicle that would become in Descartes and Locke the irredeemably solipsistic equation of objects with ideas.

In order to consider any object, the mind must first form an idea of that object, *first* as a logical priority, but simultaneously as a temporal experience, *for as soon as* and *while* the mind forms a concept the object too is formed and made present as the term of the sign relation superordinate to the psychological reality of any idea. Knowing from past experience what bluejays are, we retain a disposition to see a bluejay when one flies into our perceptual field. The bluejay objectified becomes, as physical organism, an instance of what we know: a particular object terminating dyadically a more general objective structure that exists apart from the particular instance not dyadically but triadically and through a semiosis.

This triadic structure thus enables us to think of objects in the absence of their physical presence within our perceptual field, as in memories, because, as Poinot put

it (1632a: 380/13–17), “a relation has specification from its foundation as from its cause and specifying principle, while it has specification from its term not as from the cause of the specification but as from a factor completing and terminating the rationale of the specifying” (“A fundamento habet relatio specificationem tamquam a causa et principio specificante, a termino autem non ut a causa specificationis, sed ut a complete et terminante rationem specificandi”). The point is sufficiently difficult and yet important to bear a lengthy citation (from Poinso 1632a: *Tractatus de Signis*, Appendix C, “On the Source of Specific and Individual Identity of Relations”, 381/25–386/46)

The reason for these remarks is taken from what has been said, because the whole reality of a relation is from its foundation according to the order to a terminus, since indeed the entire being of a relation is toward another, as the definition of relation says. Whence since a relation essentially requires both foundation and terminus, it ought not to be understood to be from one in any way that precludes its being understood to be from the other also.

But the second part of the conclusion [i.e., the statement cited in the text above], about the way in which these two work together in effecting the specification, must not be thought to assert that each partially concurs in such a way that the fundament provides a part of the specification and the terminus a part, but must be understood to assert that each provides the entire specification in different orders of causality. Some explain this situation by saying that the fundament concurs by initiating and the terminus by completing, others by saying that the fundament works in the order of an efficient cause and the terminus in the order of an extrinsic formal cause, and others again by saying that the fundament specifies as virtually precontaining within itself the terminus to which it is proportioned, in this way dissolving the diversity of foundations into the diverse formalities of the termini.

Yet the distinction has to be made between the terminus understood most formally in the rationale of an opposed terminus, and the terminus understood fundamentally on the side of the subjective being founding this rationale of terminating. In the former way a terminus concurs in a specification purely terminatively, but not by causing that specification, because so considered it is a pure terminus and simultaneous by nature and in cognition with the relation; therefore as such it is not a specifying cause, because a cause is not naturally simultaneous with but prior to its effect. If it is considered in the latter way, the terminus stands as an extrinsic formal cause and specifies in the manner of an object, and in this way a single specifying rationale of the relation arises from the foundation and terminus together, inasmuch as the foundation contains the terminus within itself by a proportion and power; for it is not relative to a given terminus unless it is a specific fundament, and conversely. In this way, to the extent that they are mutually proportioned, terminus and foundation together bring about a single rationale specifying a relation which postulates both a specific foundation and a specific terminus corresponding thereto.

From these remarks one can further gather what a formal terminus is in the rationale of something specifying. For although specifically different relations can be anchored to the materially same terminus, yet they cannot be anchored to the formally same terminus. But the formal specifying rationale in a terminus is understood in accordance with a correspondence and adequate proportion to its fundament...Wherefore, as regards the specifying of any relation, in just the way that the fundament is understood under the final rationale of the grounding of the relation, so the terminus of the relation is understood under the proportion and correspondence of the term inating.

The mind of the knower, the cognitive capacity of the cognitive organism as being of a definite biological type, thus serves as interpretant to the idea as sign. The power actuated in the formation of *this* idea is aware of *that* object rather than some other. The object itself, if it has a physical structure and is here and now acting through that structure upon the physical subjectivity of the organism as cognitive, indeed participates in the specification of the mind to form this idea rather than some other one; but it is not the dyadic aspect of such interaction that constitutes the objective relation of idea to object signified. And the objective relation of idea to object signified is indeed rendered in such a circumstance physical as well as objective (see Poinset 1632a: 137/8–14); but when the circumstances change and the objective relation ceases to be physical it remains unchanged in its essential being as trirelatively objective. It remains a suprasubjective mode englobing the knower at the center of a relative sphere open in principle to communication with another cognitive organism properly disposed in its psychological subjectivity, that is, one which has formed a similar idea and hence engendered an overlapping sphere similarly suprasubjective and at that moment constituting, insofar as overlapping, an *intersubjective moment* or *commens*, in Peirce's terminology, a *cominterpretant* or shared object transcendent to the physical circumstances as such.¹⁶

When we are speaking of relations as physically realized, whether the relations in question be products of brute force or products of semiosis—whether the relations be dyadic in their causal provenance or triadic—they constitute an intersubjective zone. But when we are speaking of relations precisely as objective, that is, precisely as semiotic and so far indifferent to the actual existence of their objective termini as specified through their ideal fundament in the psychological subjectivity of the knower, it is not necessarily an *actual* intersubjectivity that prevails. What prevails necessarily is only a suprasubjectivity *in principle able to be further realized intersubjectively* through an adequate social interaction, regardless of whether the environmental conditions are otherwise such as to allow this intersubjectivity realized objectively to also be physical.

16. See Johansen 1993, 1993a.

We see then what becomes of the “idea of idea” in the context of a thematically developed doctrine of signs. When we realize that ideas as representations of objects are so only insofar as they formally guide the mind to an apprehension of this rather than that object through a relation of sign to signified, we understand also that ideas psychologically considered, like bones and puffs of smoke physically considered, are sign-vehicles which, by their very constitution, are proportioned to one object rather than to another, and under this consideration are called “natural signs” in the same sense that bones and puffs of smoke are so-called within the context of cognitive experience. But we also understand that these concepts or ideas are unlike bones and puffs of smoke in that they cannot exist *except* in the context of actual experience. Hence, unlike bones and puffs of smoke, concepts or ideas cannot be objects before or without being signs, because the relation to their significate which defines, or, rather, *constitutes* them as signs cannot be prescinded from. The reason for this was well noted by Poinso: ¹⁷ the terminus of a relation understood most formally in the rationale of an opposed terminus concurs in a specification purely terminatively, but not by causing that specification, because so considered it is a pure terminus and simultaneous by nature and in cognition with the relation.

At the same time, inasmuch as the cognitive relation as existing within experience is precisely triadic and not dyadic, its terminus, i.e., its significate, “understood fundamentally on the side of the subjective being founding this rationale of terminating, stands as an extrinsic formal cause and specifies in the manner of an object, and in this way a single specifying rationale of the relation arises from the foundation and terminus together, inasmuch as the foundation contains the terminus within itself by a proportion and power; for it is not relative to a given terminus unless it is a specific fundament, and conversely”. ¹⁸ Whence the object need not exist apart from the semiosis, even though it *may* so exist in the right circumstances. Not only is the universe perfused with signs but, insofar as it is an objective universe, it does not exist at all except through signs, even though, after all, it is not composed exclusively of them—at least, as Johansen so well recently discussed (1993), not in every respect.

We can summarize our results so far as follows.

Idea and object in every case differ as that which is known from that on the basis of which it is known. In representational terms, idea and object differ as that which is represented from another which represents it, regardless of whether that which is represented has or ever had a mind-independent physical existence. Ideas in our minds are representamens, but representamens *of something besides themselves*, something irreducibly other. This “something besides” the idea is the object of the representation. The connection between the two, idea and object, is a pure relation. In some cases,

17. Poinso 1632a: 382/4–12.

18. See Deely 1994a: 234n17.

namely, when the object thought of is also a physical being and existing at the time that we think of it, the relation between idea signifying and object signified is also a physical relation. But it is not the fact of being physical that makes the relation in question be an objective relation. On the contrary, the relation need not be physical in order to be objective, and it remains as a relation even when the conditions for physical existence do not obtain, as is notably the case when the terminus of the relation does not, or does no longer, exist. The relation is objective because, in every case, it terminates at an object. It obtains between that which as such, by its intrinsic constitution, represents something other than itself, and that which, as such, represents itself (and may not even have an intrinsic, a subjective, constitution) and exists as a pure terminus, a creature of the very relation through which it is presented, though it *may* also be more than this.

In the case of a physical relation, the foundation or fundament of the relation—the characteristic of an individual on the basis of which it is related to another individual—is distinct from the other individual which is the terminus of the relation and from the relation itself (the fundament exists within or as part of the individual related, whereas the relation itself is always something over and above the individual related and intersubjective between the individuals related). Just so, in the case of an objective relation, the idea as a representation provides but the fundament or foundation for the idea as a relation to its object. And, just as in the case of a physical relation it is the relation itself that makes the terminus be a terminus even though that terminus may also have an existence in its own right as a material object, so in the case of an objective relation the relation itself makes the terminus be as terminus even though in this case the terminus need have no further existence in its own right and may be nothing material. (Similarly, in the case of a photograph or a statue of a dead person, the photograph or statue in its own being is fundamentally a representation; but this representation, on being perceived, becomes the ground for a cognitive relation which goes beyond the physical photograph to the very nonexistent person of whom the photograph was taken. The sign formally consists in this relation, not in the representation that constitutes it only fundamentally.)

The idea as a sign is thus conceived as always and necessarily, by virtue of its proper being, creating as it were a suprasubjective zone or objective sphere around the individual thinking, a four-dimensional web which is always at the same time in some parts actually and in all parts at least virtually intersubjective. This realm is actually intersubjective whenever some object of thought is also being actually considered by another thinker, as also in its sensory channels as such. It is virtually intersubjective when the thought concerns a nonexistent object which, as object, could also be constituted as terminus of thought for another should the requisite representation be formed fundamentally in that other's mind. The objects of thought, regardless of their status vis-à-vis the physical environment, always exist as objects at the intersecting termini of idea-based relations, and communication is possible in exactly the same way that any two things can be related to a common third.

SIGNS: THE MEDIUM OF SEMIOSIS

Motion is the act of the agent in the patient: so goes the classic definition of dynamic action or “brute force”; what the scholastics called “transitive action”, that is, action that passes from one thing to another through the production of change. In Aristotle’s categories of physical being, action and passion (punching and being punched, say) are dyadic, strictly correlative, the one as initiating and the other as terminating. The resultant change is the action of the agent transpiring in the patient, that is, in the one undergoing the action, and its traces endure as part of the physical order itself (principally in the patient as outcome but in the agent, too, as vestiges and clues).

The action of signs is entirely different. It is not productive of change directly. It is always mediated. It lacks the directness of punching and being punched. Even when the semiosis is involved with dyadic dynamicity, as it always is, though to varying degrees, what gives the action of signs its curiously detached and ethereal quality is precisely its indirection, what Peirce rightly characterized as its irreducible *triadicity*. The sign not only stands for something other than itself, it does so for some third; and though these two relations—sign to signified, sign to interpretant—may be taken separately, when they are so taken, there is no longer a question of sign but of cause to effect on one hand and object to knowing subject on the other. In short, for the relation of sign to signified to exist in its proper being as semiotic (smoke as a sign of fire, let us say), regardless of whether that relation exists dyadically as well (say, as an effect to cause relation between smoke and something burning), reference to the future in a third element, the interpretant, is essential. And this third element is essential, regardless of whether the thirdness is actual here and now or only virtual and “waiting to be realized” (as in a

bone to be discovered next year as having belonged to an extinct species of dinosaur not previously known to have wandered as far as Montana).

Seeing that the being proper to signs has, historically, this essentially and irreducible triadic character was an insight hard come by, as Poinso's survey of the opinions contesting as late as 1632 attests.¹ In certain respects, the point did not become fully centralized thematically within the doctrine of signs until Peirce displaced the ontological typologies of earlier semiotic analyses with the epigenetic typologies of the sign considered as the nexus and but temporarily "fixed foot" in a continuing and continuous process of signification, wherein the relation between objective and physical being constitutive of experience and modificative of each physical *status quo* is sustained dynamically (and hence dependent throughout). Nonetheless, the essential point was established early that² "in the very innards and intimate rationale of such a substitution for and representation of a signified", as is a sign, there is an indirection over and above any directly physical connection. Peirce's later work serves to underscore that the original controversies had resulted in a definitive achievement of semiotic analysis, which Poinso't formulated thus:³

Although an object in respect of a power is not constituted essentially in a relation to that power, but rather does the power depend upon the object, nevertheless, in the case of a sign, which is vicegerent for an object in the representing and exhibiting of itself to a power, this relation is necessarily included, and by a twofold necessity: both because a substitution for anything is always in an order to something, and since a sign substitutes for and functions in the capacity of the thing signified in an order to the office of representing to a power, the sign must necessarily express an order to a power; and because to represent is to make an object present to a power, therefore, if a sign is a medium and substitute of the signified in representing, it necessarily involves an order to that to which it represents or makes present.

1. Tractatus de Signis, Book I, Question 2, esp. 154/35ff.

2. Poinso't 1632a: 157/38–41.

3. Poinso't 1632a: 156/23–157/10, and 157/19–27: "Confirmatur, quia licet obiectum respectu potentiae non constituatur per se in relatione ad illam, sed potius potentia ab illo dependeat, tamen signum, quod gerit vices obiecti in repraesentando et exhibendo se potentiae, necessario includit hanc relationem; tum quia substitutio pro aliquo semper est in ordine ad aliquid, et cum signum substituat et vices gerat signati in ordine ad munus repraesentandi potentiae, necessario debet dicere ordinem ad potentiam; tum quia repraesentare est praesens facere obiectum potentiae, ergo si signum est medium et substitutum signati in repraesentando, necessario involvit ordinem ad id, cui repraesentat seu praesens facit; hoc autem est potentia....Repugnat enim in istis relationibus, quae per modum substituentis et repraesentantis se habent, quod respiciat id, cuius gerunt vices, et non id, propter quod vel in ordine ad quod substituit, quia substituit seu gerens vices alicuius secundum aliquam determinatam rationem et in ordine ad aliquem determinatum finem gerit vices illius".

For in the case of these relations which exist in the mode of substituting and representing, it is impossible that they should respect that whose vicegerent they are, and not that on account of which or in an order to which they substitute, because it is in substituting or functioning in the capacity of another according to some determinate rationale and in an order to some determinate end that one thing is a vicegerent of that other.

It is as a result of this indirection, of their triadicty, as Peirce points out,⁴ that there is nothing automatic about the action of signs. The action of signs, in other words, depends upon that very feature whereby being a sign is a singularly unstable condition, and our concern here is to give an account of the uniqueness of this singularity.

The sign first of all depends on something other than itself. It is representative but only in a derivative way, in a subordinate capacity. The moment a sign slips out from under this subordination, as frequently happens, at just that moment does it cease for a while to be a sign. A sign seen standing on its own is not seen as a sign, even though it may remain one virtually.⁵ Thus on its own, it is a mere object or thing become object, waiting to become a sign, perhaps, or having formerly been a sign, perhaps, but, on its own, not actually a sign at all.

So a sign is a representative, but not every representative is a sign. Things can represent themselves within experience. To the extent that they do so, they are objects and nothing more, even though in their becoming objects signs and semiosis are already invisibly at work. To be a sign, it is necessary to represent something other than the self. Being a sign is a form of bondage to another, to the signified, the object that the sign is not but that the sign nevertheless stands for and represents.

This is the most important fact about the sign, because it is what is most decisive for it: its thorough relativity. There are signs that are also objects in their own right, just as there are objects that are also things. But there are no signs that are not relative to some object other than themselves, and that object or those objects to which the sign is relative we call the signified or significate, the essential content of the sign insofar as it is a sign.

Because the essential content or being of the sign is relative, the key to understanding what is proper to the sign is the notion of relativity, relation, or relative being. Without this content, the sign ceases to be a sign, whatever else it may happen to be. Stripped of its thirdness, the sign slips back into the dyadic order of mere actual existence or, perhaps even further, into the monadic order of mere possibilities and dreams beyond which there is nowhere to go. Conversely, what enables some mere possibility or some actual

4. Peirce c.1906: 5.473.

5. That is to say again, as was mentioned in the previous chapter, that all in the sign pertaining to secondness and dyadic interaction pertains to the sign by reason of its foundation or fundament whence the sign relation arises or might arise. The sign-vehicle, rather than the sign itself formally, is what, for example, "produces a sense impression", or falls over on a passing car, or is hit by a bullet, etc.

physical entity to become also a sign is the fact, contingent or necessary as the case may be, that it acquires a relation to something else such that it stands for that other. So, if we can understand what it means to say that a being is a relative being, we will be in a fair position to say further what a sign is in its proper being, since this being is performative relative. And, as we shall see, it is the peculiar and unique character of relative being—in the sense that pertains to the sign in its proper being, but that also obtains physically in the order of nature independently of being experienced—that explains why such a peculiar activity as semiosis and such a peculiar phenomenon as truth and falsehood (which is an offshoot of semiosis) is possible in the first place.

Here again we deal with a matter that has a lengthy and tangled history. As our concern is doctrinal, however, I do not have to presume intimate knowledge of the history of the question of relative being on the part of the reader. It will be enough for the present if the reader understands the terms and distinctions that will be here directly made. Then, later, he or she may investigate the historical materials that made the terms and distinctions of the present explanation possible, in order to evaluate what other readings of the historical development might also be possible and useful for advancing the understanding of semiosis.

I will proceed, therefore, to merely state the matter directly, without burdening the reader with detailed citations from and references to the many authors since Aristotle who contributed to the development of the matter to the point where a direct statement of the present sort became possible. I will instead cite only a few texts clarifying the most central points, and only from those authors, particularly Peirce, who were able to point out directly how these central points contribute directly to establishing the basics of a doctrine of signs.

And further to ease the reader's grasp of the basic notions, let me frame the discussion of relative being with a very concrete example, put in the form of a question: When a child dies, in what sense is the child's parent a parent? The concreteness of the question may serve as an antidote to the inevitable and perhaps extreme abstractness of the subject to be explained. For in dealing with the question of relative being, particularly in that aspect decisive for understanding the activity and being proper to signs, even though we are dealing with what is most basic to the experience of all of us in its being as experience, we are yet dealing with that one aspect of direct experience which escapes entirely direct sensory perception. For relative being in this sense—the intersubjective as such—is indirectly given even at the level of sensation rationally distinguished from and within perceptions. A lover may not be understood but can at least be seen and touched. A relation in the sense constitutive of the sign in the being proper to it as sign can not be seen or touched. It can be understood, but, without that understanding, it cannot be grasped directly at all. Animals make use of signs without knowing that there are signs, Merleau-Ponty noted—that is to say (1957: 53), "without perceiving the relation of signification."

“Perceiving”, moreover, may be understood in several senses. There is at one level a purely sensory perception, distinct from and superordinate to (as containing and further specifying) external sensations. At this level the relation of signification can be grasped *in actu exercito*, that is to say, grasped in a practical way as employed in interaction to make one’s way in the physical surroundings and especially to get control over them or turn them to one’s advantage. There is at another level an intellectual perception, also containing the lower levels of sensory perception and external sensation in a superordinate way, and at this level the relation of signification can be not only used and manipulated *in actu exercito* but also distinguished from the vehicle conveying it and the object it conveys. It can be considered *in actu signato*, that is, directly and according to what is proper to it, not as an object directly experienced (for directly we experience only the objects related, sign vehicle on the one hand and object signified on the other hand, albeit as connecting in a single experience). This possibility, we will see, underlies anthroposemiosis in its difference from zoösemiosis. But first it will be necessary to achieve an understanding of relation in this abstract sense, only indirectly given in experience, and then to see how it applies to both zoösemiosis in the establishment of an Umwelt and to anthroposemiosis in the transformation, principally through language, of the biological Umwelt into the distinctively human Lebenswelt (if yet species-specific, at least no longer closed upon itself).

So we take up our question: In what sense is the parent of a dead child still a parent?

To answer this somewhat unpleasant question, let us begin by considering the notion of parenthood itself, a clearly relative form of being. It is early enough in the development of reproductive technology to confine our consideration here to the traditional form of parenthood, that which results from a sexual exchange between a male and a female of the species, as a result of which the female conceives and comes to term. At that moment, initially unknown to the couple responsible, they have become what formerly they were not, parents of this offspring.

Right away it is easy to see that “being a parent” or “becoming a parent”, in the minimal sense, results from an action that is over and above the being of each of the individuals taken as independent biological organisms in their own right. It is true, of course, that there are also cultural notions of parent and parenthood that overlay and are in some degree detachable from this biologically rooted notion, according to which one may “be a parent” in the cultural sense by raising offspring not begotten by one’s own sexual actions or “not be a parent” by failing to live up to the responsibilities ensuing from one’s own sexual action. But the observing of these refinements serves here to make clear the more determinate and limited sense in which we are posing our question.

Thus, the being of a parent is identified with, but not identical with, the being of each or either of the two organisms begetting the child. Being a parent is an aspect of the being of both, a characteristic of the being of each of them, but not in the sense that each has

an individual skin color, say, or weight.⁶ This characteristic we are considering, newly acquired, attaches to the generating organisms not as independent individual organisms in their own right, nor even as dyadically interacting organisms, but only as organisms interacting in such a way as to have achieved, deliberately or not, “a third kind of being, consisting in and resulting from the coordination in time of two extremes”, the generating pair taken together as one extreme (the unity of transitive action, “the act of the agent in the patient”), the child generated taken as the other. In short, the characteristic of being a parent rests not on the dynamic interaction of sexual activity alone but on that taken together with, coordinated with, a certain outcome that exists precisely as a trajectory independent of either parent in his or her individual being.

At the same time, the child is “their child”, and they are “this child’s parents”, as it were, permanently. But, of course, all three may die, separately or together. What is permanent is not in the material and biological order but in the order of discourse and understanding. It is a matter of a truth, whether it be known or not, forgotten or remembered: that child was of those parents.

At a certain moment, the individual organisms existing unto themselves acquired as a permanent part of their being, not from the standpoint of existence, but from the standpoint of understanding, the quality of being parents of that child; and the child, from the first, had as a quality of its being, being the offspring of those parents. To be fully understood, the individuals who became parents must be understood with regard to the child, and the child, to be fully understood, must be known in relation to the parents.

Of course, on the side of existence, the parents are not a mere relation to the child, and the child is not a mere relation to the parents. Each exists in its own right, separate from the others. Nonetheless, although neither is the relation characterizing their being, neither can be fully known unless that relation be included.

Here we have the first and most general sense in which being is relative: according to the requirements of understanding. Within experience, every individual exists in such a way as to require being thought of in terms of things that the individual is not, in order to be understood for what the individual is. This requirement transcends the independent aspect of the individual existent and in fact reveals that independent aspect to be itself dependent upon other factors, some present and still essential (like the atmosphere and gravity, for example) and others past and essential no longer to the individual existing before us (like the dead parents, say, or the prehistoric organisms that began the process of establishing an oxidizing atmosphere).

6. “Relation does not depend on a subject in quite the same way that other determinations of being do”, Poinset observes (1632a:89/13–17), “but stands rather as a third kind of being consisting in and resulting from the coordination in time of two extremes.” Whence he concludes (89/18–20): “and therefore, in order to exist in the nature of things, the relation *continuously* depends on the fundament coordinating it with the terminus, and not only on a subject and a productive cause.”

In the middle ages, the philosophers were mainly concerned with understanding and classifying the ways in which an individual could be said to be able to exist in its own right independent of our knowledge of that existence as a matter of individual or actual fact. They were disconcerted to find that certain aspects of even possible existence could not be reduced to a determinate classification, but invaded every possible determinate classification. To their credit, they did not simply trivialize or brush aside these discoveries, despite the fact that they were unwelcome in terms of their theoretical goal and anomalous to it. Instead, they established a rudimentary systematization of these vagrant aspects of being (*ens vagans*, they said, a rather colorful phrase) by assigning them the name of “transcendentals”, that is, characteristics transcending any one determinate mode of possible existence in the physical order of being.

Later on, probably after Duns Scotus (c.1302–1303), this name of “transcendental” became transferred or extended to that intractable sense of relative being that turned out to pertain to the understanding of even the most independent modes of physical entities, and which previously (after Boethius, c.510) had been called only by the confused and confusing title of *relatio* or *relativum secundum dici*, what we have called being relative according to the requirements of discourse or understanding.

However, being a parent whose child is living proof here and now and being relative according to the requirements of discourse, are not the same thing. For the parent was relative in other ways according to the requirements of discourse before the child came along, and to this condition the child added something real. This addition was more than a mere new aspect of the organism become parent, more, that is, than an aspect permanently modifying the discursive demands of that organism-become-parent on an omniscient understanding (indeed, modification of this sort the sexual intercourse alone, without any issue of offspring, would have achieved!). The relativity according to the requirements of discourse is permanent in a way that the prospective nurturing relation between parent and offspring is not. For this relation, both must exist; for the former or transcendental relation, continued existence is not necessary.

So there is a second sort of relative being, one that is not identified with either side of a related pair but that exists between them and exists in no other way. This relation may or may not be known. For example, a male may engage in a sexual relation that results in an offspring only after he is no longer around to know about it. In such a case, the child is determinately the child of this parent, even though the parent does not know he is a parent and the child may never know who its parent is or was. In such a case, while both father and offspring exist, the relation between them is independent of being determinately known, as is proved by the neither of them determinately knowing it, but is nonetheless determinate between them: that one is the father of this child, this child is the offspring of that parent. The relation is purely physical.

In the more acceptable case, where the offspring is both known and nurtured by the parent, the physical relation is objective as well as physical. That is to say, it is recognized as existing as well as existing. This relation, objective and physical or merely physical, is distinct from and superordinate to the individual being of both parent and child. It is not merely that intelligible aspect proper to the individual being of both whereby, henceforward, in order to be fully understood, each must be thought in connection with the other. Unlike this permanent aspect of intelligibility, the physical relation and the objectivity that may or may not accompany it are transitive: they are a type of relation that comes into being for a while and then ceases or, in the case of the objective relation, that may pass in and out of being many times, in each case remaining as a relation unchanged in its essential content.

Moreover, when the child is not only of this parent but known to be of this parent, the physical and the objective relation are the same. This is never true of the transcendental relation. The relation whereby this organism must be understood (if it is to be fully understood, which of course it need not: it is a question of an ideal requirement which becomes actual to the extent full understanding is accomplished) as parent of that organism is never the same as the relation whereby *that* organism is to be understood as child of this parent. For the transcendental relation in each case belongs to the individual being in what of it is not the other individual. Poinso summarized the point thus: "a transcendental relation is not a form adventitious to a subject or absolute thing, but something imbedded thereto, while connoting something extrinsic upon which the subject depends or with which it was engaged." In short:⁸

A transcendental relation is in the subjective entity itself and does not differ from its subjective being, and so its whole being is not respecting another, which is what is required for a relation according to its being.

It is, therefore, a question of two different ways in which relativity can be exercised. One way is identical with the subjective being of an individual and part and parcel with it, and a second way is over and above the subjective being of the individual precisely as the actual connection here and now is realized between one subject and another. Relativity in the first sense, transcendental relation, is identical with the possibility for understanding a being.

Relativity in the second sense, to which we have yet to assign a distinct name, is identical with the actual connection between two subjective entities here and now, whether that connection be physical or objective. When a being which is the parent of

7. Poinso 1632a: 90/23-27.

8. *Ibid.*: 90/33-37.

a child is also known to be the parent of that child, the relation between the parent and the child is both physical and objective. If the child dies, the physical relation between them ceases, but it remains that the erstwhile parent must be *thought of* as having been the parent of that child if the parent is to be understood according to the full extent of its intelligible being. When the parent is not only knowable as parent of the child now dead (i.e., transcendently relative), but is here and now thought of in relation to the now dead child, the once physical relation is now re-established in an objective way: the parent is not only thinkable in truth relative to that child, but actually thought in relation to that child. The relative in the first sense is in itself “something absolute on which follows or could follow” a relative in the second sense, which is the difference between something that is relative in the transcendental sense and something relative as a relation purely and strictly so called.⁹

We see then that transcendental relation captures the realization that everything that exists does so through a series of interactions. Some of these interactions preceded the now existing thing; other of the interactions are ones the thing itself is engaged in; and yet other of the interactions are consequent upon those that the thing itself is engaged in, although it is not itself engaged directly in those consequences, either because it is there and then elsewhere engaged or because it has itself ceased to be, period. On the other hand, there are the relations themselves attendant upon all these interactions. They are, comparatively speaking, ethereal. They are not the related things; they are the relations themselves. They are not in the things; they are between them. Yet they exist, physically when not known, objectively when known, objectively and physically when the knowing and the beings related temporally coincide, purely objectively when the two diverge, either through the passage of time (objective historical relations) or because the relations conceived have not yet existed (a future machine) or cannot exist physically in the way that they are conceived (nine-foot insects on the surface of this planet). Transcendental

9. Poinset expands on this technical but crucial point of difference as follows (1632a: 89/32–90/9): “The exercise or rationale of a relation according to the way something must be expressed in discourse is not purely to respect a terminus, but to exercise something else *whence a relation could follow*. And for this reason St. Thomas well said (c.1252–1256: 2. dist. 1. q. 1. art. 5. reply to obj. 8) that these, the transcendental relatives, involve a fundament *and* a relation, whereas what are relative according to being express only a relation, as can be gleaned from the readily seen fact that transcendental relatives bear on a terminus rather by founding a relation than by actually respecting, and for that reason do not respect the terminus in question in its pure character as a terminus of a relation but according to some other rationale, such as that of a cause, or of an effect, or of an object, or the like. So a relation according to the way being must be expressed in discourse is constantly distinguished...from relation according to the way relation has being in that the principal significate of an expression conveying a relation according to the way a subject must be expressed in discourse is not a relation, but something else, upon which a relation follows. But when the principal significate of some expression is the relation itself, and not something absolute, then there is a relation according to the way what is signified has being.”

relations are not relations strictly and properly but comparative requirements of action and intelligibility. What are the relations strictly and properly is that which is consequent upon the interactions or actual understandings not as effects but as the patterns according to which effects eventuate and causes act. Thus, parenthood is a relation, but a parent is an agent, and a child is an effect. The foundation of the relation of parenthood in any given case is a determinate outcome of a determinate action, but the relation itself is neither the contingent action nor its determinate outcome. The relation is the pattern, the thirdness, linking the two and superordinate to each.

Let us expand our example for a moment, choosing an illustration no less concrete but even more homely. Consider a room with all its furnishings piled in the center, and that same room with these same furnishings tastefully arranged. Not one *thing* in the room is different in the two cases, only *what is between the things*, namely, their pattern or arrangement. Yet what a difference in the room. And the difference is a genuine difference; it is a “physical” difference in our sense.¹⁰ Moreover, the relations cannot be changed directly. Only the things in the room can be directly acted upon, whence the change in the relations follows.

We see then what is singular about the being of relations in the strict sense: when a physical individual or any subjective aspect of a material being is conceived in the mind, what is conceived is not that individual as it exists apart from the mind but precisely that individual in relation to the conception. But, when I conceive of a physical relation strictly as such, both what exists apart from the thinking and what exists through the thinking are identical, are relations in the same sense. A subjective mode of being objectively represented in the mind is in principle other than the represented thing, even though and when the two may coincide: Homer I know in thought, others knew him in person as well; the centaur I know in thought as well as any other man knows the centaur. But an intersubjective mode of being objectively represented is in principle no other than the thing it is represented to be. Both what is thought and the basis on which it is thought, both what is apart from the mind and what is conceived in the mind, are relations in the same sense, are in their content identical, even though and when the two may diverge.

This is a point that seems first to have been made explicitly by Cajetan:¹¹

10. Here I follow the tradition of Aquinas and Poinso, wherein the term “physical” extends to the entire order of beings able to exist independently of human thought, from the humblest material entities to the loftiest of supposed spirits, including even the divinity in its proper life (see, for example, Poinso 1637: 38). As noted in Deely 1988: 97, reviews of my 1985 edition of Poinso’s *Tractatus de Signis* (Furton 1985, Henry 1987, and others) demonstrated the widespread ignorance in contemporary scholarship of this technical but important point of late Latin philosophical usage. Reviewers repeatedly criticized the translation of *realis* as “physical” on the ground that, for the medievals, *realis* applied to spiritual beings (what Henry calls “theological entities”) as well as to natural and material beings; whence they asserted—wrongly—that *physicum* and its derivatives are not applicable in such a context.

11. Cajetan 1507: in 1. 28. art. 1. par. 9.

Relation is the one type of being for which the qualification “existing in the mind” does not detract from what is proper to it, as this qualification does detract from what is proper to every other type of being. For a rose formed by thought is not a rose, nor is Homer in opinion Homer; but a relation formed by the mind is a true relation.

Nor is the distinction between a rose in physical existence and a rose in objective existence a distinction of essentially diverse entities, of which the one is a mind-independent being and the other a mind-dependent being, as we have said occurs with relations: it is a distinction rather of one and the same essential type according to two different ways of existing, namely, in itself subjectively or in knowledge relatively.

How this point is essential to semiotic we shall shortly see. At this juncture, what needs to be noted is how the being of experience divides respecting the notion of being relative into the subjectively or *intrasubjectively* relative and the pure or *intersubjective* mode of relative being. And what is unique to the right hand of the division also needs to be noted, namely, that intersubjectively relative being alone is indifferent to having its ground or “cause” in the broadest sense in thought or in dynamic interactions: whether a strict relation is physical only, objective only, or a mixture of both, what it is in itself and what it is in conception remains exactly the same, to wit, a connection or actual nexus, a pattern, joining what is otherwise diverse.¹² Since it is a question of being at this point, and of the being, as we shall see, whence semiosis is possible as a fact of nature, we are at an appropriate point to suggest the name “ontological relation” for that pure form of intersubjective being that is indifferently physical or objective and contrasts in what is proper to it with the various forms of intrasubjective being otherwise making

12. This unique feature of intersubjectively relative being explains why the odd case of a self-relation, “Jones ate with Jones”, where the Jones eating and the Jones eaten with are the same Jones—that is, Jones ate alone—was regarded the scholastics as the paradigm case of a purely objective relation, despite the identity status (in Peircean terms) of both subject and terminus (cf. Peirce c.1890: 1.365 p. 190). For the requirement for a relation that its foundation be distinct from its terminus is here met only through the rational activity of the mind itself reduplicating its object through a relation which, outside of thought, i.e., physically, cannot obtain as a relation but only as a subjective mode of being, i.e., Jones’ being himself. Poinset puts it thus (1632a: 70/43–71/10): “In the case of mind-dependent relations, their actual existence consists in actually being cognized objectively, which is something that does not take its origin from the fundament and terminus, but from the understanding. Whence many things could be said of a subject”—either as a physical given in the environment independently of the discourse wherein the objective relation is formed, or as a strictly objective subject to begin with (such as that a given word is an adjective, contains five letters, is used substantively, or is identical with itself, etc.)—“without the resultance of the relation” either supervenient upon the subject in physical existence or the relation in which the signification of a linguistic element consists—“because this does not follow upon the fundament itself and the terminus, but upon cognition; whereas in the case of mind-independent or physical relations, since the relation results automatically from the fundament and the terminus, nothing belongs in an order to a terminus by virtue of a fundament except by the medium of the relation”.

up the physical order of “transcendental relation” in its full extent.¹³ The trick is to remember that the transcendental relation denotes what is not a relation (an individual or inherent characteristic modifying an individual) as it connotes a relation between the individual denoted and some other individual(s) or event(s), while the connoted relation denotatively taken would be an ontological relation rather than a transcendental one.¹⁴

In other words, in the classical terminology of *subject* of a relation, *terminus* of a relation, and *foundation* or ground of a relation (the basis on which subject and terminus are related), the transcendental relation covers the subject of the relation precisely as founding the relation and also the term of the relation in whatever other aspects it may have over and above that of being a terminus purely and strictly, whereas the ontological relation covers strictly *the relation itself* as an intersubjective mode or pattern between subject and terminus whence they are caught up in common:¹⁵

A relation accrues to a subject without any change that is directly and immediately terminated at the relation, but not without a change that is terminated mediately and indirectly at that relation. Just as risibility results from the same action by which a man is produced, so from the production of a white thing is produced similitude to another existing white thing. But if another white thing did not exist, by virtue of the generation of the first white thing that similitude and any other relation that would result from the positing of its terminus would remain in a virtual state. Whence distance neither conduces to nor obstructs the resultance of a pure relation, because these relations do not depend upon a local situation; for near or far, a son is in the same way the son of his father. Nor is the relation in the other extreme produced by the terminus itself through some emission of power when it is brought into existence. Rather is the existence of the terminus the condition for a relation's resulting from an already existing fundament by virtue of the original generation whereby that fundament was brought into being as inclining toward any terminus of such a funda-

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13. Thus the notion of “relative being” is rendered synonymous with the notion of finite being, and subdivides into the order of subjectivity as intrasubjectively relative being, which embraces individuals and all their inherent characteristics or modifications, and the order of intersubjectivity or intersubjectively relative being, which embraces all and only those pure beings toward which arise over and above but dependent upon individuals with their inherent characteristics uniting them in a network or web of communication of various levels and types. The characterization of the transcendental relation as intrasubjective, which I adopt here (in contrast to the ontological relation as intersubjective), was suggested by Júlio Pinto in a mini-course we jointly conducted on the campus of the Pontifícia Universidade Católica de São Paulo during the week of 22–26 May 1989 for the Associação Brasileira de Semiótica: Regional São Paulo.
14. Notice that the terms “denotation” and “connotation” are used in their proper traditional Latin sense and not in the corrupted sense introduced by Mill. The sense of the terms introduced by Mill as a “tax upon credulity” (in Peirce’s colorful denunciation, 1867a: 2.393) and which yet remains popular in both logical and (especially) literary circles today is, as Peirce rightly says, objectionable and deserving of being abandoned.
15. Peirce 1632a: 84/45–85/19.

ment. Whence even though the generating has now ceased, it yet remains in its effect or power, inasmuch as it leaves a fundament sufficient for a relation to result.

We see then what is peculiar about the notion of relative being taken in its full extension thus divided: it includes everything that falls within our experience and so is difficult to grasp precisely because the implied term of opposition—nonrelative being, or absolute being—is at the concrete level a phantom of the mind, like the notion of “nonbeing” in general. It is not a question of some beings that are relative and other beings that are not relative, but a question rather of beings all of which are relative, though relative in two sharply contrasting though connected senses: Every being that exists in its own right is, by virtue of that very fact, subjectively relative throughout its existence; but, in addition to this subjective relativity according to which a being proximately depends on some things more than others and influences some things but not others, etc., there is the further relativity according to which the subjects are here and now intersubjectively connected actually to this thing rather than that, and later to another rather than to this, until such time as they cease to be. There is, in short, a twofold dimension or level to the relativity of being: on the one hand, there is an *underlay* of subjective relativity according to which everything ultimately implies everything else but not in equally direct or proximate ways at the level of possibility or intelligibility, even though everything is not actually related to everything else at the level of existence and physical interaction; and, on the other hand, there is at the same time an *overlay* of intersubjective relations, both physical and objective, according to which some things are actually interactive with some things but not with others in this or that way.

We are now in a position to answer our question about the living parent whose child has died. The parent remains a parent at the level of transcendental relation, while ceasing to be a parent at the level of physical relation, although this physical relation continues to exist objectively to the extent that the parent or anyone else thinks about it. The same relation formed now only in thought formerly existed also physically, and it is by virtue of that same relation that the parent is a parent.

Of course, if, as happens, a supposed father, say, was deceived into thinking that a child was his when in fact it was begotten by another, the objective relation according to which he was called and thought to be, perhaps even by the child, “father”, continues without ceasing in any sense upon the death of the child. It is thus by the relation on its physical side that the father is in fact the father, while it is by that same relation (or by what is thought to be that relation even though it is in fact a different relation owing to the nonexistence of a physical relation for the objective relation to be the same as) that the father is called “father”. Thus is the truth of *disicisigns* a consequence of the relations they embody according to whether what is asserted objectively coincides with or deviates from what exists relative to another order of being than the objective.

This peculiarity of ontological relation—whereby it, and it alone in the whole of physical reality, is indifferent to the source or ground of its being—underlies semiosis as a unique type of activity in nature. The same relation or set of relations that exists at one time purely objectively may be transferred as such into the order of physical being. When this happens, the physical order itself is reorganized and realizes possibilities that previously were remote rather than proximate and actual. This, as we will consider in Chapter 6, is what happens throughout physiosemiosis, as a given environment becomes modified more and more in the direction of being hospitable to life, and then subsequently still further in the direction of more and more complex or “higher” forms of life.¹⁶ Here it will be enough to show how the ontological singularity unique to relation in the order of physical being provides the ground for the prior possibility of semiosis at the level of the experience of organisms, which is our main concern here, inasmuch as, as we have already seen, it is at the upper levels of biosemiosis that the basic concepts of semiotics have been fully established.

The common ground of biosemiosis lies in what used to be called “natural signs”, but what is now more commonly divided, after Peirce, into indices, icons, and symbols (although of course not all icons or symbols are natural signs, either). A footprint in the sand is indexical of a person’s passing, and of the direction of the passing, unless the footprints be the skillful work of a man passing east in such a way as to leave the impression of a man passing west, in which event the footprints remain indexically accurate to a degree but iconically misleading in another degree, and are in fact symbols of an exceptional skill.

Natural signs are essential to the survival of most if not all species of animals. They need to be taken for what they are, or, in the reverse case, mistaken for what they are intended to be mistaken for, if the animal in question is to secure its food. What happens in such a case? Precisely that the foundation for a physical relation is taken or mistaken for a corresponding objective relation, as a result of which food is provided or safety secured.

The relation of clouds to rain is a relation of cause and effect. When that relation has also been experienced, an interpretant becomes established. What was formerly a mere physical relation, a relation of secondness, acquires now, through the interpretant, a thirdness whereby that same relation functions also semiotically. Because the physical relationship as such need only be dyadic, whereas the semiotic relationship is necessarily

16. The causality or action of signs may in this way intersect with and, if so, objectively channel anything of final causality that might be at work in the physical environment. But the action proper to signs remains extrinsic to and objectively distinct from this final causality. Ralph Powell’s demonstration of the confusion in this regard in Peirce’s writings (Powell 1986, 1988) should, therefore, be regarded as a guidepost in contemporary development of the doctrine of signs, demarcating one of the major areas in which textual exegesis needs to be clearly subordinated to fundamental research and analysis of the requirements of the problems involved.

triadic, there is the possibility of error, or misinterpretation. There is also the possibility of deception. The objective world wherein actual semiosis transpires is only occasionally the same and in large part different from the physical environment. But to the extent that it is the same, to the extent that it overlaps—and this is the extent to which every species depends for its survival on food, which is a considerable extent—that extent and that overlap result from the indifference of intersubjective being to the difference between what is objective and what is physical, as we have seen.

Thus, it is the being proper to relation that is also the being proper to signs, even though relations properly speaking need not be semiotic relations. Not all relations in the ontological sense pass through actual experience, but all relations in the ontological sense are indifferent to the order of physical existence, such that, once taken up into actual experience, they also take on an objective life relatively independent of physical being. It is in this way that they provide the raw material of biosemiosis. The actual being proper to the sign is the being of an ontological relation taken up into the experience of an organism, whether directly from the biological heritage of that organism (so-called “instinctive notions”) or culled rather from individual experience, where it serves to connect objectively perceptual and sensory elements. The action of signs first arises precisely from physically related environmental factors coming to be seen objectively as related, and, conversely, from objectively related factors being presented as physically related. The uniqueness of semiosis as an activity and the detached and ambiguous quality it has as an action results from the being peculiar and proper to the ontological relation whereby, as we have seen, it can be neither directly altered nor directly perceived. The permeability of relation as such to realization in either the physical or the objective order also makes the two indistinguishable in direct experience. This is a matter not of confusion but of the reality proper to experience, wherein the objective and the physical are intertwined in the sign. This permeability is why the natural sign provides a common denominator in biosemiosis, even though it can be natural in different ways for different species.

An example of a natural sign unique to the level of anthroposemiosis may help to grasp the general point at stake here. Let us consider the case of a fossil bone. This bone may or may not be known to exist. If not, let us suppose it yet belongs to a class of bones well established among those expert in the Pleistocene. One day the bone is uncovered, but by a gardener, not a paleontologist. Since the bone is in an advanced state of fossilization, let us suppose that our gardener does not even recognize it as a bone, let alone a fossil bone. For that, a more developed interpretant is required, one proportioned more exactly to what the bone relates to in its living past. Nevertheless, a fossil bone is just what it is. Such an interpretant as is required for its recognition nowhere existed actually in the middle ages, let us say, but now, among our postulated Pleistocene specialists, it exists indeed as a common property.

What is this interpretant? Certainly not an idea psychologically considered. It is rather an idea in the semiotic sense, moreover as fashioned publically through the training of paleontologists, such that those who have by training acquired it possess in their minds a foundation or “fundament” whence will result or “dimanate”, under appropriate conditions, a network of relations including that bone.¹⁷ But first, one of them at least will have to see the bone in question.

Supposing that occurs. Supposing that one of our students of the Pleistocene visits our gardener just as the gardener is about to deposit into a trash bin the bone which had irritatingly obstructed his gardening. “What is that you have there?” Now our gardener, being also a student of Peirce, may at this point respond, casually tossing the bone toward the trash, “A brute fact at the level of secondness.”

But our paleontologist had not asked her question idly. She had spoken out of a glimmer of suspicion, a hint of recognition, as it were—she was voicing in context a low-risk abductive gamble. Into the brute fact at the level of secondness something of thirdness had already, thanks to her training, begun to enter. “Let me have a closer look”, she said, moving toward the bone discarded as a peculiarly shaped rock. “This”, she announces on careful inspection, “is no rock. This is a rare fossil bone, which just may revolutionize a bit of our understanding of the Pleistocene in this area.” Whereupon, clutching the bone with great excitement, she ran off in the direction of the university.

What has happened here? A physical relation, recognized for what it had been, thanks to the dynamic interaction of its fundament (the bone) producing physical changes in the student of paleontology’s optic nerves, became at the same moment also a sign of what had been. A transcendental relation, the bone of a dinosaur, which once had a physical relation to that dinosaur, but no more (the dinosaur being dead), yet gave rise to an objective relation corresponding somewhat with the physical relation that had been. The gardener’s rock had become the paleontologist’s sign.

17. As an additional exercise, but one not requisite for grasping the discussion to follow, the reader may profit from trying to envisage the situation in light of the following text from Peirce (1868: 388/38-46), commenting on an analogous situation: “And that a previously merely potential relation should spring from a fundament actually, or that a relation therefrom already in existence would be extended or expanded by applying itself to a newly posited terminus as pertaining to the already existent relationship as such, is something intrinsic to the being proper to relation taken ontologically as such—namely, to tend and to be determined in act toward that in respect of which the relation was already tending virtually, and only for want of an existent terminus was not anchored in being independently of being cognized.” Those interested in the full details of these technical doctrinal points are referred to the more specialized discussion in Deely 1988: 56-87, esp. 56-68.

ADDENDUM TO CHAPTER 4

A FURTHER CLARIFICATION OF THE BASIC CONTRAST BETWEEN ONTOLOGICAL AND TRANSCENDENTAL RELATIVES

1. Clarification from the Spanish Second Edition

When I first undertook to understand Poinso's account of the being proper to signs in the spring of 1970, I was soon brought up short by Poinso's introduction of the distinction between *relatio secundum esse* and *relatio secundum dici* as the key to the work. Knowing of the huge study by Krempel of *La Doctrine de la Relation chez Saint Thomas*,¹⁸ I turned to that work for assistance. I found in Krempel a wealth of historical detail combined, in the end, with a disappointing poverty of philosophical understanding. Krempel correctly traced the terms in Latin back to Boethius in the sixth century, and, through Boethius, to Aristotle's own discussion of the categories, as I discussed in first presenting Poinso's *Tractatus* in English.¹⁹ But, when it came to the heart of the matter, Krempel throws up his hands, advising the reader that it is impossible to arrive at a satisfactory rendering of the two expressions.²⁰ Either Krempel had to be wrong, or Poinso's theory had to be inscrutable. I suspected the deficiency lay on Krempel's side.

Years of study followed before I was able to demonstrate to my own satisfaction that Krempel was indeed mistaken. The distinction in question was chosen by Poinso to begin his treatment of signs for an excellent reason: properly understood, the *secundum esse* and *secundum dici* relatives both divide and exhaust the notion of relative being in its total possible amplitude. Having grasped the point, I set out to explain it to others,

18. Krempel 1952.

19. See Deely 1985: 472ff.

20. *Op. cit.*: 394.

for the purpose specifically of making Poinot's revolutionary account available in the theoretical context of contemporary semiotic discussions. Apart from articles in learned journals over the years, I tried first in *Introducing Semiotic*,²¹ then in the Editorial Afterword and notes to the *Treatise* itself,²² and again in Chapter 4 of the Spanish 2nd edition of *Basics of Semiotics*.

The account which I had felt was finally satisfactory was the account in *Basics*, worked out during my year of teaching in Brasil. Imagine my discouragement, then, after all that effort, to receive the following inquiry from my very best student over the years, now Professor Julio Jeha of the Federal University of Minas Gerais. He had studied with me my whole time in Belo Horizonte, had come afterwards to the States where he completed his doctoral dissertation in Semiotics in consultation with me, and had just himself completed a course he had taught using *Basics* as the text (letter of July 12, 1992):

One thing, however, wasn't very clear for me (and for the students). It's something I had trouble with when you first taught the course here: the difference between transcendental and ontological relations. Much as I tried to understand it from *Básica* [the Portuguese edition of *Basics*, which Julio had helped to translate], it never became clear to me. Or for the students. When you are teaching, you need examples to make sure learners understand the concept concretely. I'd appreciate it very much if you could explicate that rather obscure point for me.

This letter had a very discouraging effect on me. I felt as if all my efforts to explain this point had come to nothing, that I had not succeeded at all in removing the major obstacle to Poinot's semiotic becoming available to the community of contemporary linguists, philosophers, anthropologists, and students of the sciences generally. This was the period in which I had to face presenting a major paper for the October 14–17, 1993, conference on "Hispanic Philosophy in the Age of Discovery", which Dean Jude Dougherty had organized at the Catholic University of America to commemorate the quincentenary of Columbus' opening a way to the Americas.

Determined to make the paper succeed, I decided, in the despair brought on by Julio's letter, to try to present the whole problematic Poinot addressed without centering the discussion, as Poinot himself had originally done, on the contrast between relation as *secundum esse* (or "ontological", as I came to say) and *secundum dici* (or "transcendental", as Poinot and the Latins themselves came to say). That paper, "A New Beginning in Philosophy: Poinot's Contribution to the 17th Century Search", establishing the

21. Deely 1982: esp. note 9, pp. 168–179.

22. Deely 1985.

approach I followed in Chapter 4 above of backgrounding the foundational distinction of Poinso's Latin text, was a decisive influence on my original idea for this book.

Not until September, when I was well advanced in my plans for avoiding the point on which Julio had oppressively pressed me, did I undertake to answer his letter. I wrote as follows concerning the main point of unclarity, somewhat tongue in cheek, as I was not optimistic of the outcome of the effort (letter of 29 September 1992):

... let me make a few remarks of such clarity that, despite their brevity, all will become self-evident (I hope).

The distinction between transcendental and ontological relation is the difference between a relation as such, which cannot be perceived, and the thing which is, on the basis of one or another of its characteristics, related to some other thing. The thing related and the thing to which it is related, together with all their characteristics, are transcendental relatives: that is to say, neither of them is a relation, but they are involved in a relation. The relation they are actually involved in, that is an ontological relation. Voila!

Recently, in a lengthy essay I shall soon be sending you (I had to write it before answering your letter), I have undertaken to explain Poinso's doctrine without speaking at all about the transcendental relative in its contrast to the ontological relative. I think the effort works; still, to understand the *Tractatus* itself, one has to grasp the distinction, the point of which is that, within human experience, *every* being is relative, i.e., involved with and dependent in various ways upon things other than itself. As such every being provides the basis for an indefinite number of sign-relations, and, besides, is involved in many physical relations of cause-effect, similarity, etc. But each of the things involved in relationships is not itself a relationship; in itself, it is some kind of individual existent with various characteristics, various subjective traits—traits belonging to it in its individuality and distinctness, even though others may have similar traits. The relations themselves in which the individual is involved, these alone are ontological relations. The individuals, which are not themselves relations although they are involved in relations, cannot be fully understood in what they are unless the relations in which they are involved are also understood. Thus, on meeting a man, I may be surprised to later learn that that man was President of Brasil, or a homosexual, or a leader of a drug cartel, or the man who killed my mother. The man is transcendentially relative, in that he is not fully known unless his having murdered my mother is also known. His having murdered my mother is a cause-effect relation, an ontological relation, but it is not him. He is just an individual, who at one time had not murdered my mother. He is, of course, being prior to test-tube babies, some other mother's son. He is not his mother, but he is related to his mother. That relation is an ontological relation. He is transcendentially relative to his mother, that is to say, he, in order to be fully known for who he is, requires being known as the son of this mother, even though the relation to this mother, here and now, is something over and above his being in his own right.

Thus all being is relative, either transcendently, or ontologically—that is, every being in the finite universe is an individual with its characteristics or a relation between individuals with their characteristics. The distinction is exhaustive and exclusive. (That is why the sign, a relative being, must be either the one or the other, though it may involve both: the point of departure of Peirce's *Tractatus*.) A being transcendently relative—just another way of saying a being finite, a being dependent in its existence on many factors outside itself, with emphasis on the dependency—is then called a “transcendental relation” by a kind of extension and, be it said, an abusive extension, of the meaning of terms. It is emphatically *not* a relation, it is a relative being existing in its own right or as a characteristic of a being existing in its own right, an individual or some or other characteristic of an individual. Usually, of course, at least in ordinary experience (leaving out atoms and the like), such individuals can be perceived, and their characteristics can also be perceived.

So I can see that my mother's murderer is tall and has a hooked nose, but, unless I witness the deed, I cannot see that he is the murderer of my mother. This, however, unfortunately for him, I can come to understand. What I understand, when I realize that, and assuming I am not mistaken, is something real: it is, in fact, an ontological relation. Now his peculiarly hooked nose, in fact, itself not a relation but a characteristic of an individual (a characteristic *relative* to an individual, indeed), may even become for me a *sign* of my mother, of her murder, and of her murderer. This hooked nose is a transcendental “relation” or, as I should prefer to say, a transcendental relative, in several respects: it is visibly relative to its owner, but it is also invisibly relative to the murdering of my mother (presuming the nose was present at the crime when performed by the man on whose face it resides).

I hope this helps. If it doesn't please let me know, and try to be as specific as possible, because if you and I can't get clear about this distinction, despair is in order.

I next heard from Julio in December of the same year, when his letter dated November 15, 1992, arrived. Although I normally like to hear from him, in this case I felt a bit anxious, especially as the letter appeared to be lengthy. I was not in the mood, at the moment at least, for further discourse on the matter. Imagine how my spirits lightened when I reached the dreaded part of the letter to read only this:

As for explanations, thank you. Why didn't you say that when you wrote the book? Though the example is grim—to say the least—it's effective and likely to impress the reader.

My friend was actually satisfied. I could not believe it. Was it really the clarity and simplicity of my latest letter, or was it rather the accumulated weight of the letter on top of Julio's own years of study and reading of most of my earlier attempts at exposition of the

distinction, together with including some direct wrestling of his own with Poinset's Latin text? I preferred to believe that the letter alone explained his new-found understanding, and, since it succeeded in cutting through what Krempel considered a hopeless—even a Gordian?—knot, I felt I owed it to the readers of the expanded second edition to place the correspondence here at the end of the chapter discussion the point in question, to better complete the discussion, first of all; but also as a kind of unanticipated fulfillment of the original idea that this presentation of the philosophical themes which are proving foundational to semiotics should come to contemporary readers out of the Portuguese—and as a way of saying thanks to my friend and student, now professor, Julio Jeha.

2. Clarification from the 2012 Nanjing Congress: The Relativity of Subjective Being vs. The Suprasubjective Being of Relation²³

In the 7/10/2012 afternoon “Workshop 27 on Translation” organized by Susan Petrilli at the Nanjing 11th IASS World Congress, I worked out the following explanation of “*Relativum secundum dici*” as “the relativity of subjectivity as ‘esse in’”: Every being that exists in itself (“*esse in se*” plus “*esse in alio*”) depends for that existence upon an inescapable interaction with its surroundings (“*agere*” and “*pati*”). This interaction modifies the interactants by leaving its traces upon and within the subjectivities (the “being in itself” and “being in alio”) of the interacting beings, *traces* which in turn involve the interactants in *relations* initially (i.e., at the time of the interaction and normally for some time thereafter) intersubjective but which, as *traces* (i.e., in their foundations) mark or scar the subjectivities even after this or that intersubjective relation no longer exists. The traces which initially give rise to relations thus remain as *traces* (i.e., as “*esse in alio*”) even after the relations have ceased to exist. Thus every being in itself, every subject of existence (“*esse in se*”) together with its characteristics (“*esse in alio*”), necessarily involves interactions with other beings in themselves, and the interactants are modified “in themselves”, i.e., in their subjectivity, by the interactions, with the result that every subjective being is so modified by interactions over time as to incorporate or have inscribed within its very subjectivity the “story” of everywhere it has been, everything it has done, and everything that has been done to it.

These traces, of course, are not all equally *clear*; they affect the subjectivity of the existent subject more or less profoundly, but also and all *cumulatively* over time, increasing their collective “weight”, as it were, carried by and within the “being in itself”, the substance as existing. Thus every finite substance bears signs of *age* as well as of *experiences* of this or that, “signs” which can later be read by an observer restoring in

23. Clarification B. here is derived from the fuller text of Deely 2012a.

awareness-dependent mode the very suprasubjective relations which formerly, under past circumstances, provenated *intersubjectively* between the being in question and the beings surrounding it at the time of the interactions—i.e., under the circumstances which made the relations suprasubjective in awareness intersubjective in being as well as suprasubjective. Thus all relations as irreducible to subjectivity (“*esse in*”) are *suprasubjective*; but only some relations, wholly determined by changing circumstances, are *intersubjective* as well as suprasubjective.

Thus in so-called *ens reale intersubjectively* come and go as circumstances change, but no matter what the circumstances it remains constant that finite *esse in* always depends upon interaction with a surrounding physical environment, and so never escapes from “being in relation” even though the substance with its inherent accidents is not a relation and even though the relations in which it is here and now involved are constantly changing. This fact—that every finite being depends upon interactions with its surroundings and is modified by and through those interactions in its individual identity—is what constitutes the “*secundum dici*” relative. Thus “*secundum dici*” names nothing less than *the foundation or basis of forensic science, the reason why “forensics” is in the first place possible*. “*Relativum secundum dici*”, in short and in sum, is a Latin expression intended to circumscribe and foreground the permanent and inescapable situation or ‘fact’ that every finite subjectivity contains as part and parcel of its subjectivity, contains within itself as constitutive of its very subjectivity, the *ever prospective story* of everywhere it has been, everything it has done, everything that has happened to it.

In the same Nanjing IASS Translation Roundtable I worked out the following, correlative, explanation of “*Relativum secundum esse*” as “Relation as suprasubjective to ‘*esse in*’”: Thus a relation, one and the same relation as far as concerns its suprasubjective identity as a relation, can exist in *ens reale* only, or in awareness (“*ens rationis*”) only, or in both conditions at the same time, depending upon the circumstances obtaining at a given moment. It is the fact that every relation as such is suprasubjective, whether it is at any given moment intersubjective or not, that constitutes the so-called “*secundum esse*” (or “ontological”) relative, a Latin expression intended to circumscribe and foreground the essential being of relation as suprasubjectively realized *in contrast to* the being of “*esse in*” which *separates* and distinguishes individuals from though within the universe.

ZOÖSEMIOTICS AND ANTHROPOSEMIOTICS

Classical philosophy had much to say about Aristotle's definition of the human being as a "rational animal". The problem was that, in this definition, the term "animal" was somehow never quite taken seriously, and most of the discussion centered on showing how "being rational" contrasted with "being animal" in such a way as to render animality unimportant. In the extreme case—the work of Descartes¹—the contrast was emphasized to the extent of being transformed into an outright opposition, and a new definition of the human as a "thinking thing" was proposed to replace the old definition entirely.

"Thinking things"—humans—were opposed to "extended things"—all bodies, including the animals other than human. In this way, the ancient definition was bifurcated: the first part (which supposedly designated a uniquely human factor in one among the animals) became the whole definition of the human being, while the second part (which supposedly designated something shared by human beings with other species or types of cognitive animate beings) was made to reduce those other types of beings to a material uniformity that became the whole definition of what was opposed to the human and in contrast with it, namely, bodies of whatever sort.

This modern dualism of mind and body was rooted in a certain interpretation of the mind's ideas as being themselves the objects directly given in experience. As we will see, the idea thus interpreted as an objective representation—as an object before being a sign—is incompatible with the interpretation of ideas as signs. A suspicion of this incompatibility, indeed, may have been the reason why Locke, in proposing the introduction of semiotic into the scheme of human knowledge, saw as a first task for

1. Descartes 1637, 1641.

semiotic the bringing of “ideas”—the inner side of knowing—along with “words”—the outer manifestation of the knowing—into the perspective of the sign. For he rightly guessed that the successful completion of this task would result in a radically different account of knowledge and experience than what was developing in the then-modern philosophy, including his own.

The semiotic understanding of what a human being is can only be an upshot of that radically different account. If we are to propose, for example, “linguistic animal” as a semiotic definition, we will find that, in order to interpret the defining terms semiotically, we cannot avoid taking animality very seriously indeed, if only in order to understand language. What comes first in the expression, we will find, comes second in the interpretation of the expression. For in the expression, “linguistic animal”, the linguistic term not only presupposes for its sense what is first of all an animal construction, namely, an Umwelt, but also differentiates the objective relations comprising an Umwelt not from above, independently, or externally, but from within.

1. The Content of Experience

Although belonging to the cognitive dimension of experience, semiotics does not have its roots in a theory first of all. First of all it is rooted in a process, the process of semiosis, specifically as that process is responsible for the very possibility and for whatever there is of actuality in the experience of any living being. This actuality, in certain cases (such as our own), can then be reflected upon and come to constitute in its own right an object according to what is specific to it, namely, the dependency of experience throughout on the action of signs. At that moment of reflective insight, semiotics begins as a moment of anthroposemiosis.

Like any other work of reflection, the development of semiotics is subject to errors, false starts, and blind alleys. At the outset, perhaps the single problem that has most often thrown off reflections on the sign has been getting straight the distinction between a sign and a representation and, consequently, the difference between signification and representation. We have touched on this distinction in Chapter 4 particularly, but here some further remarks will be helpful. The confusion comes from the fact that every sign must be a representation, but, whereas every signification involves representation, not every representation must be a sign. In other words, the sign is a representation of a certain type but of a certain type only, whereas a representation may or may not be a sign.

A representation may be of itself, or it may be of something other than itself. In the former case it constitutes an object, but only in the latter case does it constitute a sign. This is why, as we have seen in Chapter 4, the sign in its proper—its irreducible—being

always involves a pure relationship. In the technical terms established there, we may say that a representation as such may be a merely transcendental relationship, whereas a sign is also always an ontological relation. In the sign, the transcendental element of the relation—the representational factor—is merely fundamental, that is, the foundation or ground whence springs the ontological relation to something else—the significate or signified. And it is in this relation to another that the sign formally consists.

In the case of a representation as such, what is fundamental and what is formal may coincide (the case of objective self-representation). When that occurs, the representation exists as an object of awareness. But, in the case of a sign, what is fundamental (the representation grounding and founding the relation of signification) and what is formal (the relation of signification itself) never coincide. It is a question of modality, as I have explained in technical discussions elsewhere.² As a result, although an object may also function experientially as a sign, it need not so function (the moon, well known to ancient man, never served for him as a reminder of the U.S. Apollo Space Program of the 1970s, nor need the god Apollo and the moon have been brought together in order to signify a program to reach the moon). And a sign that is also an object may, accordingly, cease to be sign in any given respect for any given case or instance of perception (as when we tie a string to remind us of something and then forget what the string is to remind us of, or when we can't remember a word we have previously looked up, and so forth).

The confusion of signs as such with representations has been, historically, perhaps the most common cause of misunderstanding of the role of signs in experience. This confusion is what led Descartes and Locke to posit ideas as the objects of our awareness and then to trouble themselves mightily with the problem of figuring out how these self-representations might or might not be causally connected with or resemblant of the assumed (but not directly experienced) existence of extramental things. Once it is understood, however, that objects as such are always representations but representations as such are never signs, it becomes clear that, to whatever extent ideas are signs, they are differentiated from, rather than identified with, the objects of our awareness here and now. The distinction between representation and sign, in what concerns semiotics, is the distinction between object and sign. A representation may or may not be an object, but to be an object is necessarily to be a representation, while for being a sign being a representation is not enough.

These are extremely important distinctions, the full understanding of which involves not a few subtleties. The point of entry into a semiotic understanding of ideas as signs is the point of exit from the modern interpretation of ideas as representations, as the objects of which we are directly aware when we think. Precisely as signs, ideas are separated from rather than identified with the objects they signify, and objects signified that in

2. Esp. Deely 1986e: 39–40.

turn become signs do so by themselves becoming differentiated from what they signify. As signified, objects always presuppose a relation to something other than themselves on which their being as objects depends, for, as objects, they exist precisely as cognized. Indeed, their being as object is at the terminus completing such a relation.

The foundation of such an objective relation, however—the element of representation in the signifying—need by no means be itself an object, nor could it be in every case. For the being of objects represented as other than what does the representing implies among the representing elements some at least that lay the ground of objectivity without themselves being part of that direct ground. The experience of objects that in turn signify other objects must not be allowed to obscure this fundamental point, if the standpoint of semiotic is to be achieved. This is a second subtlety on which integral achievement of the semiotic point of view very much depends.

The need for an objectively sensible element as sign-vehicle is not essential to the functioning of the sign as such, but only to the transformation of objects already known in their own right into signs of other objects as well. The essential function of the sign, however, has already been achieved in the making present of the object in the first place. For, in that case, the intraorganismic factor (the psychological state, say, or the nervous condition) on the basis of which the object exists as known to begin with, is already serving to engender the relation whereby the factor in question serves to make present in awareness that which it itself is not, namely, the object. The object may itself then in turn also function as a sign of other objects or be taken inferentially as a “reverse sign” to abduce the existence of its corresponding idea or psychological state on the basis of which it exists here and now as something experienced or known. But the signs at the base of objectivity never present themselves directly as objects. This is a simple matter of fact, whose possibility is explained (the reason for the possibility of which is given) by the being of the sign as essentially relational over and above the subjectivity of whatever is related by it, as we saw in Chapter 4.

The objects of experience as such, thus, depend in every case on signs, and they themselves further differentiate within experience into other signs, so that one object, which as object represents itself, comes also through associations of various kinds to represent other objects besides itself. In that way, an object comes to be a sign as well as an object in its own right.

But it is not only into signs that objects dissolve through experience. They also dissolve (or resolve) into objects of very different types. Here we come to a third subtlety on which a grasp of the main entry point into semiotics depends: just as signs are prior to and distinct from objects within experience, so objects are prior to and distinct from the things with which they happen to be partially identical. At the most primitive levels of experience, and throughout the most sophisticated experiences, no doubt certain elements of objectivity are also preadjacent elements of the physical surroundings. But it is

not as preajacent that they are objective. As preajacent, in their preajacency, they were not objective in our sense at all. Whatever is objective exists through an actual representation, that is, as cognized or known. If what exists as known also happens to exist, in whole or in part, physically as well, that is, independently of the cognizing, then we say that it is, besides being an object, also a thing—a case of a “physical object”. Thus, within our experience, things are included both among objects and among what objects may become signs of. But objects may also be and become signs of non-things, of mistakes, errors, lies, wishes, or fantasies of various kinds, including realizable dreams of a better future than what is existing could alone portend. Whatever is known is, as such—that is, as known—objective, be it Hamlet or Napoleon. But whatever exists objectively may (as in the case of Hamlet) or may not (as in the case of Napoleon) exist *only* objectively.

We are not, therefore, going beyond the boundaries of experience by introducing here the notion of “thing”, for precisely within those boundaries some among objects present themselves as having an existence that exceeds the knowing of it. The notion of things in its contrast both to objects and to signs arises inevitably and quite early in the experience of each of us, through the resistance we meet to our desires and, indeed, our expectations, with such regularity that there is no adult real or conceivable who does not have the idea of an environment surrounding him or her that is comprised of a great variety of objects possessing a being or existence that exceeds the individual’s experience of them, in precisely the sense that much of this variety anteceded the individual me, much of it is unknown to me (it is full of surprises, welcome and unwelcome), and much of it will survive my demise.

Things, in this most general sense, are whatever in my experience is experienced as not reducing to my experience of it, and as having an embodiment, moreover, in the environmental structures such that it is not a mere figment of thought or imagination, but has also an existence proper to itself that is physical or “real” in the sense that it obtains apart from my thinking of it. Things have bodies, in a word.

But note, too, the transformation semiotics imposes on our use of the common term “objective”. The word “object” and its derivatives need to be appropriated from common usage to become *termini technici* in the context of semiotics. “Object” or “objective structure” refer, in contrast to the various usual usages, to the becoming of things through and in experience. Objects are *not* what things are in a being prior to and independent of experience. Objects *are* what the things become once experienced—that is, once they take on the existence proper to experience. But objects *are not* only things experienced. Objects are more than things, even when—which is not always the case—they are also things. Objects always involve a “relation to an observer”, so to speak, or, more exactly, to an organism experiencing. Things only sometimes involve such a relation.

Within experience, the status of objects not designated to be signs with other objects so designated is peculiarly unstable, not because of a deficiency in the sign but because of

an instability in the status of the object as such. This instability characterizes the object, regardless of whether a given object (a star, say, or a vampire) is also a pre-jacent physical element in the environment, whereby, as we have seen, every type of object, every objectivity and objective structure as fitted into experience, owes its being to the sign. The seemingly derivative and unstable status of signs that are objectively constituted within the order of experience, then, is due to the fact that any object can become a sign of any other object, and every object in experience begins as or quickly becomes a sign of several other objects (which ones depending on context and changing over time).

There remains, however, a constancy underlying this apparent variance. What does not change, what remains invariant at the base of experience, is the role of the sign as giving being to objects of whatever type in the first place, and providing the medium for their growth and transformations.

Thus, when we speak from the strict standpoint of experience (which of course we must in all contexts where we hope to avoid delusion), the sign is not by any means one thing among many others: the sign is not any thing at all, nor is it even first of all a distinct class of objects. As a type of object or objective structure contrasting with other objective structures, the sign is singularly unstable and derivative, for it is what all things—not just some—become in experience. But first of all and most radically, a sign is neither a thing nor an object but the pattern according to which things and objects interweave to make up the fabric of experience, wherein one part so stands for other parts as to give greater or lesser “meaning” to the whole at various times and in various contexts.

This status of the sign—whereby it is itself not a sensible or perceptible item (even when it has such an item for its foundation or “vehicle”) but the arrangement of such items according to what they signify and provide as the content of significance to experienced objects—is, we shall see, the key to the higher level process of linguistic semiosis, which, as we shall also see, draws the line between human life forms and the other animals. Making this intelligible but imperceptible and insensible status itself objectified, thereby introducing into objects the dimension of stipulability, as we shall see, is precisely what constitutes anthroposemiosis in its difference from zoösemiosis and marks the beginning of language (prior to its exaptation for communication, for example, in speech) as a distinctive modeling system.³

3. Edward T. Hall (1976: 57) remarks that “language is not (as is commonly thought) a system for transferring thoughts or meaning from one brain to another, but a system for organizing information and releasing thoughts and responses in other organisms. The materials for whatever insights there are in this world exist in incipient form, frequently unformulated but nevertheless already there in man. One may help to release them in a variety of ways, but it is impossible to plant them in the minds of others. Experience does that for us instead...”. What we are asking is what must the construction of experience be in order to provide the materials of insight language is exapted to release in others?

But in order to develop this point effectively, we need first to develop more integrally the notion of embodiment as a fundamental objective structure. We saw above that the notion of having a body is proper to that type of object that is also a thing. But not only things have bodies. Embodiment is a general phenomenon of experience, inasmuch as whatever we encounter, learn, or share through experience has about it an aspect which is accessible by some sensory modality, be it only the physical being of marks or sounds subsumed within language and employed to create some text (a literary *corpus*, we even say). Herein resides and is conveyed some object of consideration that (we learn on occasion, whereas at other times we know—or think we know—from the start) has no other body besides a textual one. Examples are the medieval unicorn, the ancient minotaur, the celestial spheres which gave occasion for the condemnation and imprisonment of Galileo.

This was what we meant above in distinguishing, within our notion of objects experienced as things, the notion also of objects that may or may not be things. A thing experienced and an object of experience are not wholly the same. Of course, every thing *experienced* is by that very fact also an object of experience. But not every object of experience, by any means, is also a thing in the sense of having—such as experience indicates to be the case with much of nature—an existence preadjacent to the human community and independent of an embodiment within that community.

Illustrative of this distinction are objects that are sometimes identical with physical things, as “the north star” names a unique natural entity contextualized to a specifically cultural but also magnetic and planetary frame of reference. At other times objects are identified with physical things without achieving a unique identity therewith—as the boundary for a certain stretch between Iowa and Illinois “is” the Mississippi River or as the President of the United States was first identified with Washington and later with a whole string of successors. At other times physical structures are made to instantiate objectivity without by any means being identical with the object locally embodied, as a statue of Romulus and Remus as founders of Rome, or a statue of the minotaur, has the physical aspect of a thing without that physical aspect being at all what is proper to its objectivity, in contrast to the mountain stream which enters experience as an object with a physical being precisely proper to and part and parcel of its objectivity. So, too, many objects of experience have no physical existence in addition to their embodiment within texts. Cinderella, we think, along with her glass slipper and pumpkin coach, are purely objective, in a way the rocks and stars are not. The celestial spheres, long thought to embody the very stars, turn out not to embody them at all. The stars proved to be the bodies, and the spheres proved to be but objects in the merest sense of fictions cut out of the whole cloth of experience by the understanding, which confused their objectivity with the physical existence proper to things become object, that is, experienced.

We the better see thus that the world of experience as experienced is through and through objective, the leprechaun no less than the cancer cell or silver bullet (used to kill werewolves) or mountain stream. We see, too, that the physical universe on its material side exists within and as part of the objective universe of experience, indeed, as its lining and skeleton, so to speak. But we see also that the objective and physical worlds are by no means coterminous, as each extends in its own way well beyond the confines of the other.

Of course, strictly speaking, only the objective world, in all its diversity mixed with physicality, exists *as* experienced. The physical surroundings may or may not also so exist—that is, objectively, or as experienced—and then only partially. At least, this is the notion of physical being and existence that experience imposes on each of us, the notion that there is more to what we experience in its aspect of embodiment than reduces down to our experience of it, so that there are no doubt “things we have yet to learn and things we may never know”.

A particularly interesting aspect of the requirement that objects have an embodiment, be it only “textual” or linguistic in the sense of conveyance by some sensible *moyen* subsumed into the order of language, comes into view in those cases where the objects discoursed about are by definition independent of the world of bodies entirely: the case of supposed spirits or of the angels and deity of Western religious conviction. Here the objective embodiment—the texts explaining and arguing about the nature and reality of these beings—is precisely denied to be of the essence of the object experienced through the discourse about it. This case is in sharp contrast, say, to the unicorn, which only contingently proved to want for a bodily form beyond the discursive, or textual, *corpus*.

Although these considerations hardly exhaust the variety of ways in which objectivity and physical existence or being interweave, they are perhaps sufficient to make unmistakable the point made in our earlier chapters to the effect that the contrast between objective and physical being in what we experience is a fundamental contrast between two orders or frameworks that are not identical at every point, even when they happen to coincide. The objective and the physical depend upon one another without being coextensive and without being articulated in the same way. This last point is extremely important to take fully into account. The structure of experience and the structure of nature are, because of it, relatively independent variables.

We thus have a general rule: physical being, while it reveals itself within experience as involving a dimension that exceeds experience, also reveals itself on the material side as providing for experience a necessary lining. That is, experience, without being reducible to the points where physical and objective being are coincident, consists formally in an objective structure embodied through a lattice of physical relations that would not be just what they are apart from experience, but that are not the whole of experience either. The objective world (the world of experience) at once enfolds in part and restructures

in part the physical environment within which it sustains itself. This is also true of the biosemiotic network of objective worlds taken as a totality.⁴

We see thus that the action proper to signs is at the heart of the interplay between objective and physical being that constitutes experience, and illustrates in the constituting that the sign must be, as we saw in Chapter 4, a purely relational being in order to function and act as it does in playing precisely this mediating role, beyond the dynamics of physical interaction (whether material and physical or psychological and psychic, as Peirce⁵ joined Poinso⁶ in pointing out). The sign manifests itself in semiosis not at all as a physical thing, nor even as a peculiar type and variety of object. The sign appears, rather, as the linkage whereby the objects, be they bodily entities or purely objective, come to stand one for another within some particular context or web of experience.

The semiotic web, it turns out, embraces not just the living world (the biosphere) nor even just the realm of cognizing organisms. The so-called physical world itself exists within the world of experience. But it is not *as* experienced that the physical world is properly called physical. As experienced, as we have seen, it is properly called *objective*. The *further* discrimination among objects of experience, between those that are *also* physical existents and those that are *only* objects of experience, is itself a matter of experience. The engrained dichotomy between the subjective on the one hand, which is all that is essentially private or illusory, and the objective on the other hand, which is what is public, real, and independent of the observer, simply fails to hold up when duly weighed and considered in the light of the only instrument we have for discriminating the true (or more sound) from the false (or less sound). A trichotomy is necessary, and a trichotomy of a most peculiar kind.

The essential category for the experienced as such is the category of the objective: whatever exists in any way as known. Opposed to the objective in this sense is both the physical in the sense of the things of the environment preagent to and able as such to survive the demise of experience, and the subjective in the sense of the psychological or psychic depths of the individual insofar as they are not available objectively here and now. In other words, we have a trichotomy where the subject stands at the center of a web of relationships comprising precisely an objective world. Through the web, each subject is also entangled in other webs with other centers, the whole comprising an objective network. The filaments and strands of this network of intersecting webs catch aspects of subjectivities that exist through their bodily dimension as elements active in the physical environment below and beyond the ways in which the subject experiences that environment and reconstitutes it structurally as an objective world shareable with

4. Cf. Bargatzky 1978; Lovelock 1972, 1979, 1988.

5. Peirce c.1906: 5.484.

6. Poinso^t 1632a: 195/3–9, 18–29.

some others. The strands of this network then hold these aspects up for scrutiny from the centered perspectives and thereby objectivize the subjective aspects and incorporate them as aspects now of something else besides, namely, an *Umwelt*, a shared objective world, in its contrast to environment.

2. Species-Specific Objective Worlds

With this understanding of objectivity in mind, a useful concept for discussing the being of signs as constructive through experience of a world precisely objective throughout is that of the *Umwelt*. Originally formulated at the end of the nineteenth century by the biological researcher Jakob von Uexküll and developed through further researches well into this century,⁷ this concept, with important modifications of its originally overly-Kantian and needlessly anti-evolutionary context of formulation, is commonly used in semiotics today in connection with the doctrine of signs.

The environment selectively reconstituted and organized according to the specific needs and interests of the individual organism constitutes an *Umwelt*. The *Umwelt* thus depends upon and corresponds to an *Innenwelt*, or cognitive map, developed within each individual. The *Innenwelt* enables the individual to find its way in the environment and insert itself into a network of communication, interest, and livelihood shareable especially with the several other individuals of its own kind. If the organism could not objectify enough of the physical surroundings to catch its food, for example, it would not, as Jacob more or less picturesquely remarked,⁸ live to tell the tale.

Of course, the possibility of coincidence of environmental with objective elements actually realized within experience and indefinitely expandable through the critical control of objectification lies at the heart of science and constitutes the basis and ground for all studies and experimentation properly termed scientific. But this possibility as critically verifiable is already owing to a special feature—textuality, as we shall see—whereby the specifically human *Umwelt*, the *Lebenswelt*, as it is sometimes called, is a uniquely malleable *Umwelt* open in ways no other *Umwelt* on this planet is open to reconstitution along alternative lines of objectification, both within itself and in its relations with the external environment physical as such.

The *Umwelt* in principle, thus, is a “model world” from the point of view of possibility: it is one of the infinite variety of possible alternatives according to which the bare physical furnishings of the environment can be arranged and incorporated into an architectural superstructure of possible experiences, supposing especially this or that biological form.

7. Jakob von Uexküll 1899–1940.

8. Jacob 1982: 56.

But from the point of view of its inhabitants, an Umwelt is the actual world of experience and everyday reality. In comparison to this actual world of experience, the preajacent physical in its proper being is secondary, derivative, and not necessarily recognized according to the intrinsic requirements of its own being.

We think today, for example, generally, that a human Umwelt incorporating the institution of slavery is a less acceptable species-specific habitat than one that is free of slavery. The “model world” of the twentieth century is sharply different in this regard from the “model world” acceptable to and inhabited by the ancient Greeks, Saint Paul, medieval man, and so forth. The Umwelt of Sparta differed sharply from that of Athens, and much appropriation of physical resources within the shared environment was put to the use of determining which objective model should dominate over or even supplant the other. Rome sought to destroy not the physical lining of the Carthaginian Umwelt so much as the Umwelt itself as sustained by that lining.

The notion of reality and the notion of the Umwelt are, from the point of view of experience, inseparable. Yet what is distinctive about human experience in contrast to a purely perceptually structured consciousness is, quite precisely, the discoverability that Umwelt and environment (or physical surroundings) are yet not coextensive. From this bare suspicion of the understanding in its difference from sense arises the whole enterprise of science and technology, on the one hand, and morality as distinct from mores, on the other.

The problem of the action of signs in the context of our own experience, therefore, is, fundamentally, the problem of the common source of all Umwelts (the emergence of objectivity *in its difference realized* from the physical environment as such), and, formally, the problem of the emergence within objectivity of the *realization of its difference* from the physical surroundings. This latter realization, we shall see, is tantamount to the invention of language or—what comes to the same thing—the advent of textuality. There may be forms of semiosis already at work in physical nature itself anterior to the advent of anything living and continuing independent of it, to be sure. But only with the Umwelt do we encounter in its full actuality the first phenomenon of semiosis, the explicit realization of the function essential to the sign: “referral” or *renvoi*, the word by which Jakobson, as Sebeok well put it⁹ “defly captured and transfixed each and every sign process conforming to the classic formula, *aliquid stans pro aliquo*” (one thing standing for another),¹⁰ which yet requires a twofold revision, as I later came to realize, if,

9. Sebeok 1984a: 66.

10. This is the formula Jakobson employs (1979) as providing “a retrospective glance over the development of semiotic”. It is an excellent formula as far as it goes, though I belatedly came to realize (see the following two footnotes) that it does not go far enough fully to capture the essence of the late Latin formula (“*id quod repraesentat aliud a se potentiae cognoscenti*”) in rejecting the ancient Stoic and Augustinian linkage of the sign to a sensible content as its vehicle (“*signum est quod praeter species quas ingerit sensui,*

on the one hand, it is to elude even the possibility of a Cartesian interpretation,¹¹ and, on the other hand, to capture also the point of Thirdness in identifying signs as irreducibly *triadic* relations.¹²

This point is among the most fundamental points to be made in regard to the sign: there is no object that does not depend *in its objectivity* on the simultaneous action of the sign as making present in experience something other than itself, something that it itself is not.

The further point concerning what is species-specific to experience in a human *Umwelt* is well-made through an observation of Maritain:¹³ on the one hand, animals other than humans make use of signs, but they do not know that there are signs; on the other hand, the birth of language and the grasp of the relation of signification as such—as distinct from the sign vehicle, or sensible embodiment of the sign as ground of semiosis, as well as from the object signified—are the same. For “what defines language is not precisely the use of words, or even of conventional signs; it is the use of any sign whatsoever as involving the knowledge or awareness of the relation of signification”.¹⁴ In this relation as such consists formally and strictly, as distinct from fundamentally and perceptually, the *sign* in its proper being: “and therefore a potential infinity”—what later authors have called “unlimited semiosis”; “it is the use of signs in so far as it manifests that the mind has grasped and brought out the relation of signification”.

This feat opens the possibility of a text and establishes therewith the boundary beyond which *zoösemiosis* becomes specifically anthroposemiotic. At this moment the specifically closed *Umwelt* is opened up to the prospect of infinity; *zoösemiosis* becomes anthroposemiosis, capable of a progression into infinity.¹⁵

aliud facit in cognitionem venire”), on the one hand, and, on the other hand, fully to capture the essential openness of semiosis to non-cognitive virtualities.

11. Deely 1993a.
12. Deely 2001a: 721–722.
13. Maritain 1957: 52–54.
14. A semiotic approach to language pursued along this line, thus, would support Peirce's contention (c.1902a: 1.250) that “the question of the origin of language” is one “which must be settled before linguistics takes its final form”, as against the Linguistic Society of Paris which adopted as the second article of its founding *Statuts* (1868: 3) that no communication concerning the origin of language be admitted into discussions of linguistic science.
15. Sebeok (1989b: 83), resuming in effect an ancient controversy of the greatest interest for the doctrine of signs (cf. Poinset 1632a: Second Preamble, esp. 102/23–25 and 102/36–105/13; Appendix C, esp. 380/23–381/40), observes, presumably against an idealist formulation that has become current in the wrong ways among semiotic *literati*, that “semiosis is by no means unlimited (save perhaps in a metaphysical sense)”. But what cannot happen in a semiosis either virtual or simply exercised is precisely what happens in a semiosis signified in its very actuality—that is to say, in the making of a text: relations as such are made to found other relations (and, of course, there is nothing to prevent the physicist in particular, thanks to the anthroposemiosis through which physics and the mathematics on which it depends modally exist, from hypotheating and consequently asserting the opposite).

3. Species-Specifically Human Semiosis

Once the relation of signification has been grasped on its own, as distinct from a particular object signifying another particular object signified, it becomes possible to detach that relation from any particular objective sign vehicle and, taking this invisible content itself as the basis for further representations, to attach it, instead, to some other object. This other object will now serve, by choice, in lieu of the original vessel—that is, will now serve as ground for a relation originally grounded elsewhere. With the possibility of such a choice, a new kind of sign and a new mode of signifying comes into existence objectively, the *stipulable sign*.

What we call “linguistic signs” are a specific variety or sub-species of the stipulable sign. The members of this sub-specific set are arbitrary in their ground over-all, although natural inasmuch as they consist in relationships no less than (and precisely as do) other kinds of signs as such—for example: signs embodying connections that are physical before becoming also objective and social (such as the connections between clouds and rain or smoke and fire); or signs formed of connections that are objective associatively rather than physically (such as the connections between candlelight and lovers, napkins and meals); or of connections that are manipulative (such as pressing a lever and receiving a pellet of food) rather than stipulative; or social signs subsequent to language embodying connections which are only objective and cultural (such as the connection between flag and country). The ability to grasp the actual stipulation of linguistic signs, in contrast to making associations based on their perceptible aspects, is just what is meant by “intelligence” in the species-specific sense of linguistic competence.¹⁶ This ability is “a subspecies of semiotic competence”, as Johansen says,¹⁷ which overlays the biological species-specific competence with a developmental dimension historical in a Lamarckian sense, thus introducing into the objective world of the species the permeating element of textuality.

It is thus that semiotics explains infinite generability in the sphere of anthrosemiosis and of sentences within language in particular, without having to postulate (Chomsky 1968) a separate “faculty of language”, distinct from intelligence.

16. This is also the meaning of “intelligent life” in the sense of what radio astronomers earnestly search for among the physical stimuli rendered objective by their remarkable (if no doubt remarkably primitive) instruments. It is improbable that such a lifeworld—a radically flexible and open *Lebenswelt* such as Husserl showed at the base of the sciences and the humanities, in contrast with the *Umwelten* at best partially flexible and finally encapsulated wholes of other species—has evolved only once and at one place in the physical totality of the preadjacent surroundings. Be that as it may, it is from within the *Umwelt* of such a species, a species able to mark for subsequent contemplation physically objective protrusions into its sphere, that the understanding of the sign, in contrast to its bare use, begins.
17. Johansen 1985: 279.

Using the older terminology of images and ideas along with conceptual premises that are pre-zoösemiotic, Maritain attempted thus to describe the situation:¹⁸

Normally in the development of a child it is necessary that the idea be “enacted” by the senses and lived through before it is born as an idea; it is necessary that the relationship of signification should first be actively *exercised* in a gesture, a cry, in a sensory sign bound up with the desire that is to be expressed. *Knowing* this relationship of signification will come later, and this will be to have the idea, even if it is merely implicit, of that which is signified. Animals and children make use of this signification; they do not perceive it. When the child begins to perceive it (then exploits it, toys with it, even in the absence of the real need to which it corresponds)—at that moment the idea has emerged.

But this description fails in its purpose, unless it is *further* made clear that the detachment of the relationship from the related elements is achieved in such a way that the relation in its proper being as imperceptible can be made an objective foundation or basis that, directly as such (that is, as imperceptible), is able *further* to serve to stand for and represent some other relationship yet again. (Whether that other relationship terminate at an object that is *also* imperceptible in turn is not what matters, although it does emphasize what is distinctive to the semiosis in question). A dog, for example, wanting to be let out, can indeed learn to fake the need to evacuate as a way of manipulating its master “even in the absence of the real need to which it corresponds”. And yet, at that moment, an idea in the sense in question has not emerged, no matter how playful the dog may become in its efforts.

At the heart of the difference between the human *Umwelt* and the *Umwelt* of other cognitive organisms is the “idea” in this specifically semiotic sense: the relationship itself that constitutes signification is grasped in its proper being at once imperceptible and distinguishable both from a given signified and from a given sign-vehicle—and therefore as detachable from any given vehicle and attachable to any other vehicle, as well as directable to some other object, or to the same object only, in its new attachment. This difference makes for the possibility of a text as such.

Texts are not only literary. They can be any physical structure at all made to embody ideas in the semiotic sense. Indeed, the whole of culture, in this radical sense,¹⁹ is a text. In this sense, culture as a text is a network of signs whose lattice of articulations is chosen at critical nodes, though not at all nodes (which would be impossible, an outer limit of the intelligible, pushed, for example, in Joyce’s *Finnegans Wake*). These critical nodes are chosen differently and to different degrees in individual cases but are also, as chosen,

18. Maritain 1957: 53.

19. Cf. Danow 1987.

subsequently detached in effect from the initial choices and *naturalized* through the habit-patterns of a community as “conventions” in the strong sense of “the way we do things (by preference unthinkingly) here”.

The network exhibits a hierarchical or quasi-hierarchical structure relative to the physical side of the objects experienced within the network’s frame.²⁰ Thus, a technological artifact embodies critically controlled and stipulated relativities no less than does an artistic or literary creation, and all three would serve as documentary evidence to some future historian or anthropologist or to an extraterrestrial seeking to understand the contemporary human Umwelt. But, whereas the objective relations embodied in the technological device *directly* relate also to its physical constitution *as such* in order for it to function as an instrument, the objective relations embodied in an artistic structure dominate the physical constitution of the whole in quite another fashion. Finally, the objective relations constitutive of the literary work tend to be a variable relatively free in respect to their embodiment, that is, their sensorially accessible base. For this reason the written word tends to function as the primary analogate for our understanding of text, inasmuch as here the relation of signification is exhibited not only as subject to critical control (that is, as cultural) but also in the form most subject to critical control (that is, the linguistic form) while still retaining permanence in the exhibition (the written in contrast to the spoken word).

20. Hjelmslev’s remarks à propos of naive realism pertain here (1961: 22–23): “Naive realism would probably suppose that analysis consisted merely in dividing a given object into parts, i.e., into other objects, then those again into parts, i.e., into still other objects, and so on. But even naive realism would be faced with the choice between several possible ways of dividing. It soon becomes apparent that the important thing is not the division of an object into parts, but the conduct of the analysis so that it conforms to the mutual dependences between these parts, and permits us to give an adequate account of them. In this way alone the analysis becomes adequate and, from the point of view of a metaphysical theory of knowledge, can be said to reflect the ‘nature’ of the object and its parts.

“When we draw the full consequences from this, we reach a conclusion which is most important for an understanding of the principle of analysis: both the object under examination and its parts have existence only by virtue of these dependences; the whole of the object under examination can be defined only by their sum total; and each of its parts can be defined only by the dependences joining it to the other coordinated parts, to the whole, and to its parts of the next degree, and by the sum of the dependences that these parts of the next degree contract with each other. After we have recognized this, the ‘objects’ of naive realism are, from our point of view, nothing but intersections of bundles of such dependences. That is to say, objects can be described only with their help and can be defined and grasped scientifically only in this way. The dependences, which naive realism regards as secondary, presupposing the objects, become from this point of view primary, presupposed by their intersections.”

Poinsot (1632: 270/39–43, and elsewhere *passim*), applying a formula from Cajetan 1507, established within his semiotic the ground for Hjelmslev’s point: “The differences of things *as things* are quite other than the differences of things *as objects* and in the being of object; and things that differ in kind or more than in kind in the one line can differ in the other line not at all or not in the same way.”

To create a text is therefore to become aware of the difference between physical surroundings and objective world and to play with this difference, thereby erecting a system of signs at once expressly in consciousness of the difference and enhance of it. To create a text is predicated on the understanding that "the role of the object in the semiosis is", as Johansen puts it,²¹ "not confined to being an element in an experiential situation interpreted to tell if a symbol applies or not". To create a text is hence to proceed accordingly in the use of signs freely to structure objectivity in a contour and manner accessible only to a conspecific, in the precise sense of another organism able to share that understanding and to grasp signs fashioned on its basis (that is to say, encoded according to patterns neither reducible to nor accessible within the perceptible dimension as such of the sign structure). To create a text is thus a function of amusement.

For an understanding of this function two terms must be clarified: code and idea.

4. The "Conventionality" of Signs In Anthrosemiosis

When the term "ideas" is defined semiotically, that is, as the individual discovery of relation as such as the connection and difference between sign and signified, the question becomes: how is such a discovery shared? How is a relation of signification grasped for itself as detachable from this sign-vehicle and attachable rather to that one, communicated in its difference? That is the question to which the term "code" is proposed as answer. In other words, "idea" is to Innenwelt as code is to Umwelt as species-specifically (and regardless of planetary location) human. To understand what a text is and to understand the human lifeworld in what is specific to it are the same.

The perceptions of an animal that learns through experience, and the beliefs of a human animal as subject to rational criticism, are keys to textuality as the species-specific human form of objectivity. We distinguish among "fancies" the two distinct iconic forms: images, derivable from and reducible to a correlation between objects sensorially accessible as such (given a specific biological endowment), and conceptions or ideas, which express relations of signification in the being proper to them as relations (that is, as indifferent to their subjective ground and, consequently, as detachable from any given sign-vehicle as object for attachment to an objective ground elsewhere and otherwise). Ideas in this sense, conceptions within perceptions of the world, are unique to, and species-specifically definitive of, anthrosemiosis.

But in order to establish the basis for *shared* conceptions, these ideas must be embodied in a publicly accessible objective structure, which is not the case as long as their only embodiment is the cerebral cortex of the individual for whom a given idea

21. Johansen 1985: 235.

has taken form. A given objective relation, seen in its detachability, must not only be detached but also attached elsewhere: it must be *assigned* a new ground in such a way that that new ground can in turn be experienced as a sign-vehicle relative to the objectivity originally grasped elsewhere. The code is the correlation and proportioning of a sensibly accessible element to an objectivity that is understood as correlated thereto. The idea must be correlated with some physical element within experience that is taken to serve as ground for the relation in which the idea expressly consists. That correlation is what constitutes a *code* in its difference from an idea.

Code and idea alike are logical interpretants,²² but the logical interpretant considered now on the side of *Innenwelt* (idea), now on the side of *Umwelt* (code). A code thus channels and directs relations among objects in a publicly accessible way. A mastery of the encoding will result in a partial duplication (a sufficient overlap, we might say) within the decoder of the ideas behind the original encoding, thereby imposing, to that extent, a *common conception* (an *intersubjective moment*) within and beyond the perceptually shared objectivity. The *Umwelt*, in itself perceptual through and through according to the species-specific constraints of a biological inheritance, is now modified and restructured from within by further objective relations not themselves constrained directly by the biological heritage. Code, in short, belongs to the object experienced and idea to the organism experiencing. Both alike serve to ground, channel, and define or specify the relationships of dependency that comprise the objective world in its integral being subsumptive of the physical.

So far we have noted that semiosis, in the fullest sense of the action of signs, extends well beyond the boundaries of culture, as even well beyond the boundaries of animal societies, to include the dynamics of plant life and even the dynamics of chemistry and physics down to the quantum level insofar as there is a question of *future outcomes* and *law governed interaction*. Our concentration has been on the explicit absorption and redistribution of elements of physical environment within the relational network of objective world through cognitively mediated experience. We have focused on the construction of species-specific *Umwelten* corresponding to *Innenwelten* for the purpose of providing the proximate genus in contrast to which the specific difference of a human world—a *Lebenswelt*—might become visible.

That difference, we now see, is textuality, in the precise sense of the introduction, through understanding, of relations into the objective world that are not grounded in

22. An interpretant in general is the ground on which an object functions as a sign. Interpretants exist, consequently, at those points in semiosis where objects are transformed into signs or signs are transformed into other signs. Ideas are interpretants, but not all interpretants are ideas: interpretants as such are indifferently physical or even mental. They define the points of innovation in semiosis at the level of objective representation, as we explained in Chapter 3 above. Logical interpretants define the points of innovation in intellectual semiosis, that is, developing understanding.

the perceptible elements, as such, of that Umwelt as correlated with a species-specific biological heritage. These relations alter the objectivity itself experienced and add to that experience the element of critical control as a possibility. Such control is not in the bare sense of something modified or modifiable through the muscular effort and plan of the organism (such as, for example, the beaver contemplating a mountain stream before and after building its dam), but in the rich sense of recognizing the possible, in its objective being, as distinct from the whole order of physical elements as such actually given here and now.

The exaptation²³ of the human modeling system (let us say, language in the ground sense) through speech into a communication system is therefore only one aspect of textuality: specifically, that aspect wherein the communicative intention finds an embodiment that is distinct from the other purposes that enter in when action is directed, beyond language, to the establishment of the postlinguistic structures of civil organization, shelter, trade, clothing, and so forth. These other systems, too, depend on the stipulable sign actualized in a determinate way (a "conventional sign") in the fullest sense of an alternative contingent embodiment of the relation of signification grasped in itself, as distinct from any given subjective ground. But these other systems are required to take account of their material embodiment as objects created to perform more than a communicative function (in the case of a house, for example, to withstand the elements; in the case of a machine, to work reliably; and so on). In contrast, the language as exapted to communicate, through embodiment in a system of sense perceptible elements, needs to take no more account of the bodily form than is minimally necessary to the one function in its purity. For this function no more is needed than to convey the code, according to which the relations constituted by ideas have been transferred from the Innenwelt to the Umwelt, as determinative of the experience of others able to grasp the code precisely in its conventional being (its situation of being incidental to the sensible constitution of its immediate ground, its "arbitrariness" in happening to be this way from customs dimanated from stipulations). Thus, the animals other than humans perceive the difference between the general's uniform and that of the private, but only the human animals have a chance to understand the difference not in its material effects (for the animals, too, experience social power relations) but in its formal constitutive (which is first of all cultural and only derivatively social).

In this sense we can agree with Barthes that "every semiological system has its linguistic admixture".²⁴ At the same time our point is more basic: *every linguistic system*

23. This is the term introduced by Gould and Vrba (1982) to designate the secondary adaptation whereby an organ or function originally developed within evolution for one purpose is then put to another use entirely: in this case, human language, originally developed as a unique modeling system, is then further deployed through real relations to communicative purposes precisely according to what is unique about it.

24. Barthes 1964: 10; cf. Culler 1982: 21.

has its semiological surplus. Language is not only not an autonomous system, still less “a semiotic into which all other semiotics may be translated”.²⁵ The structural peculiarity of language is not unlimited in that sense. But language is unlimited in the sense of being able to draw all other semiotics (and semiosis) into the trajectory of the communicative intention freed from a species-specific *biological* inheritance. The “linguistic admixture”, far from providing the foundation of all other semiotics, pertains rather to their surplus and perfection in community—that is to say, as they are drawn into and made shareable through the diaphanous medium and network of relations (the codes in particular) through which the objective world receives a texture of intelligence.

In such community, the contexts of nature itself and of biosemiosis in particular are enhanced and transformed according to objective possibilities not prefigured as such in or by the biological heritage of the species. These possibilities are opened up, rather, through the Lamarckian means of convention, which is transmissible through the praeterphysical vehicle of correlating codes embodied in physical elements reworked with understanding. Included in such transmissible convention are the physical elements of linguistic communication. These achieve a semiotic preeminence by virtue of being independent of any specific purpose, in order to be, in the context of communication, at the service of every other purpose. Language as a communication system—as a publicly available coding of the *Umwelt*—is thus the objective reflection of the freedom of the intellect as a growth in time.²⁶

At the same time the coding of the *Umwelt* is not restricted or reducible to linguistic coding in this sense. According to our anthrosemiotic definition of ideas, the coding of the *Umwelt* is the series of marks made by intelligence on the objective world *in whatever respect and whether deliberately or as a concomitant attribute of intelligent action.* The conventionalizing of objective relations makes of the context of *Umwelts* and physical relations the one texture of human experience. This “conventionalizing”, this “loosening up” of the objective world as naturally determined (by biological heredity on one side and physical environment on the other) whereby reality itself becomes in some measure

25. Hjelmslev 1961: 109.

26. “The invasion of codes”, Eco remarks (1977: 27), “means that we are not gods: we are moved by rules. But we ought to decide (and here the epistemologies of code are in disagreement) whether we are not gods because we are motivated on the basis of rules which historically we give ourselves, or if we are not gods because divinity is precisely the Rule (the Code of Codes) which stands behind us.”

Eco sees the choice as between the historical and the mechanistic; but this seems to overstate the situation. The question is whether codes are not a finite mediating ground *between* nature and culture, wherein the “Code of Codes” is neither immutable nor wholly freely chosen from within culture. The choice, then, is not between a frame of reference either historical or mechanistic but between seeing culture as a semiotic phenomenon cut off from nature by linguistic coding or seeing culture as founded in while transforming at its own level—that is to say, through the semiotic modalities characteristic of anthrosemiosis—the “natural” *Umwelt*.

“freely chosen”,²⁷ constitutes the network of *codes* in the broadest sense, including the linguistic code as a subset. This conventionalizing of objective relations is not something actual or actualizable in only one way. It is something multiply actual (the diversity of the natural languages) and only virtually universal.²⁸ Such a virtual universality is destined always to be defeated in time by the particular actualizations called into being by specific circumstances on this planet, and most likely on planets elsewhere, as giving rise, through semiosis, to a biosphere and intelligent life in the sense that we are speaking of it here as anthroposemiotic. Yet between these particular realizations there yet always remains the virtuality whereby one system of coding *could be*, given sufficient ingenuity, *translated into* the other, so that the virtually universal also defeats the actual particular in its own way, though only potentially and in the background.

In such a context we can appropriate Eco's conclusion²⁹ “To see cultural life as a web of codes and as a continuous reference from code to code is to restore to the human animal its true nature”—as long as we realize that the “nature” we are restoring the human animal to is its nature as semiotic *in actu signato*. The human animal, as inventor of the Rule, needs also to realize that this inventor is in dire need of being wary of the surrounding virtualities which measure, in every case, how truly reasonable the “rule” is against the background and in the context of what humanity must depend on (such

27. In Powell's phrase, 1983.

28. 2828The situation is well described by Bakhtin (1963: 202): “For the word is not a material thing but rather the eternally mobile, eternally fickle medium of dialogic interaction. It never gravitates toward a single consciousness or a single voice. The life of the word is contained in its transfer from one mouth to another, from one context to another context, from one social collective to another, from one generation to another generation. In this process the word does not forget its own path and cannot completely free itself from the power of these concrete contexts into which it has entered.

“When a member of a speaking collective comes upon a word, it is not as a neutral word of language, not as a word free from the aspirations and evaluations of others, uninhabited by others' voices. No, he receives the word from another's voice and filled with that other voice. The word enters his context from another context, permeated with the interpretations of others. His own thought finds the word already inhabited. Therefore the orientation of a word among words, the varying perception of another's word and the various means for reacting to it, are perhaps the most fundamental problems for the metalinguistic study of any kind of discourse, including the artistic.”

Barthes (1970) speaks similarly of code as “so many fragments of something that has always been *already* read, seen, done, experienced; the code is the wake of that *already*”.

But the code is more than a wake of the past: it is at the same time a wave of the future as it is taken up, modified, and given life anew by the individual appropriating an old understanding or forging a new one within the *Lebenswelt*. The code provides not a prisonhouse (Jameson 1972) but a clearinghouse, wherein the most prominent item is not the past but the colorful “fact that words have a capacity for learning” (Johansen 1985: 240) and an orientation towards the future. Bakhtin (1963: 166) has a beautiful answer to Peirce's inquiry “whether meaning does not always refer to the future” (c.1902: 24): “Nothing conclusive has yet taken place in the world, the ultimate word of the world and about the world has not yet been spoken, the world is open and free, everything is still in the future and will always be in the future”.

29. Eco 1977: 52.

as the rain forests or the ozone layer, and biosemiosis in general) in order to pursue its seemingly (but not entirely in fact) “unlimited semiosis”. Otherwise, we risk making a semiotics on the model of the Hobbesian King, answerable to nothing below and hence immune to considerations of justice or injustice.

The codes themselves of culture already incorporate through the content of what they are used to convey (their “surplus”, semiologically speaking) what is more than culture and binds it to the further reality of surroundings as physical. This whole which is more than language and within which language functions as a relational dependency suspended between what it presupposes and what presupposes it is the primary reality of human experience as a whole. We move from the idea of reality as an order of existence independent of the observer to a semiotic idea of “reality” as including also the observer in all that is dependent on the observer, along with whatever in experience reveals itself as a part of something—the old idea of “reality”—independent of the observer (“physical being” in its praeter-objective character as the *lining* of experience). We move from the classical modern idea of reality, which was the ancient and medieval idea as well,³⁰ to the postmodern idea of reality as the text of specifically human experience. We move from communication in the service of biological ends to a communication system opening as well possible worlds beyond any species-specific objective one, or any imaginary reductionistic purely physical one (the myth of Positivism).

Such is the movement within objectivity from sign to textuality, that is to say, to an objectivity which includes within its network of objective relations a dimension or aspect, an “affordance”, in Gibson’s phrase,³¹ whereby objectification itself can be subjected to critical control and reshaped by stipulation. This brings us to the matter of criticism. This is a method proper to *les sciences humaines*, indeed, but an activity no less essential to the evaluation of presentations in the natural sciences and, in general, the activity distinctive of anthrosemiosis in its linguistic and cultural development beyond animal societies and the communications proper to zoösemiosis.

5. Criticism as the Exploration of Textuality

We have seen that the codes demarcating culture in its proper being incorporate, while at the same time contrast with, the physical side of objects and the objective “things” comprising together the *Umwelts* (the experience and structures of experience) of the various species interacting within the objective human world or (outside our awareness perhaps—but vitally and biologically in contrast with “culturally”) within the organismic

30. Deely 1984: 265–266.

31. Gibson 1979—though not his sense: see Cunningham 1988.

population comprising the human species as a biological entity. We have also seen that such codes are only incompletely actualized (within consciousness especially), while remaining operative virtually as a totality at cross purposes with itself (in the residual oppositions of perspective encoded into the objective world through past discourse and social interaction). Hence, for example:³² “From one speaker to another there can be differences in the complexity of semantic analysis of a term: these differences produce *sub-codes* on the basis of which one speaker could assign meanings to the terms which other speakers would not assign to them; the different mastery of such sub-codes reveals class differences in social interaction.”

Consequently, criticism is not merely “literary”. It is an activity of mind that ranges across the entire horizon of objectivity textualized, including those types of objectification characterizing natural science. There are as many authentic roles for criticism as there are ways of bringing into the objective sphere, with greater explicitness and formalizing, the roles played or playable by the traces left in experience of the workings of intelligence over these many generations present through the past. Such traces are especially apparent in the linguistic sign (“the ideological phenomenon par excellence”, as Volosinov remarked³³), but also in general in that surplus of semiosis we have come to call “textuality” or “culture” in the sense of postlinguistic structures.³⁴

Given this purview, the semiological systems of Roland Barthes and Jacques Derrida find in spite of themselves a theoretical ground within what Sebeok calls³⁵ the “major tradition” of semiotic development. So also do the systems after Eco³⁶ that, without being called semiological by their proponents, yet share the ideology of equating semiosis with the tracings and workings of codes precisely as conventional (in the base sense of standing in part on that irreducible element of the arbitrary which is inseparable from even though not identical with the stipulability of signs) within culture, lucubrating (in consequence) absorption of the indexical and iconic as such.

This label, as we saw in Chapter 1, is a reference to a strategy for encouraging a view of semiotics not as a *theory* in either the traditional critical sense or in the traditional scientific sense, but as what Locke called a *doctrine* of signs,³⁷ a term which must be carefully construed. In the context of Locke’s *Essay*, as Sebeok first pointed out,³⁸ “doctrine” has a unique sense, one redolent in particular of the Latin Renaissance mainstream understanding of philosophical knowledge in its double contrast with

32. Eco 1977: 31; cf. Carleton 1649: sec. 6.

33. Volosinov 1929: 13.

34. Deely 1982: 198 n. 1, after Morris 1946.

35. Sebeok 1977: 181.

36. Eco 1973: 153; 1976.

37. Locke 1690: 361–362; commentary in Deely 1986a, 1986c, 2001: Chap. 14.

38. Sebeok 1976a: ix.

empirically soluble formulations on one side and theological formulations dependent on religious authority on the other side.³⁹ A doctrine of signs, within this notion of philosophical doctrine generally, specifically transcends the opposition of culture to nature, and thereby precludes an autonomously linguistic or literary semiotics, pretensions toward which, as we have seen, Sebeok⁴⁰ rightly dubbed collectively a “minor tradition” respecting semiotics as a whole.

Such a *doctrina signorum* was specifically inaugurated in Poinso’s work,⁴¹ though the fullness of its object was not stated before Peirce, who coined the name *semiosis*⁴² for the action through which this relative being of signs so artfully disengaged and delineated by Poinso is sustained and fulfilled through actions. Thus, the doctrine of signs has for its unifying object, as we saw in Chapter 3, the action of signs explicitly recognized as an activity or process constructive not only of human experience but of all organismic experience and, we shall argue, of the physical environment itself. The argument of the chapter following is that the environment in its physical being is already developmental, and therefore virtually semiotic, by virtue, that is, of its tending to give rise to and to subsequently support and lend itself to appropriate transformation by the plethora of *Umwelts* (including the species-specifically human one) precisely in their contrast—as objective worlds—to the physical realm they presuppose. The objective worlds not only rest upon this preadjacent physicality, they subsume it in part as it is in its own right, even while restructuring it directly in the objective order as well as subjectively through physical interactions as subjects.

The decisive move in this strategy for establishing the doctrine of signs on the basis of its full and proper possibilities for understanding today turns, not surprisingly, on our conception of *language*. We saw above, in line with our view of language as (prior to exaptation) the species-specifically human *Innenwelt*, that the essence of language is arguably equatable with the discovery of the relation of signification and the consequent reconstitution of experienced signs as stipulatable. This latter point refers to the subsequent use of any sign in the light of an apprehended difference between, on the one hand, an object signified as such, and, on the other hand, a sign-vehicle (or *signifier*) as such, in their mutual difference from the *linkage itself between* the two as able to be abstracted and codified for purposes of communication. By the same stroke, we saw, a field of infinite possibilities opened up—the field of unlimited semiosis. As Floyd Merrell briefly put it:⁴³ “if a dog and the idea of a dog were separate, then there would be a relation between them, and therefore an idea of this relation, and so on, *ad infinitum*.”

39. Deely 1982: 127–130, 1986b.

40. Sebeok 1977.

41. Poinso 1632a: 38/16–20, 117/28–118/6.

42. Peirce c.1906: 5.488.

43. Merrell 1988: 257.

In giving a place to textuality as the objectivity proper to human beings, we see that what is required at the foundation is a notion of language larger and more fundamental than the network of differences conveyed through the employment of the arbitrary array we call (in relation to the network of conventions and contrasts constituting them formally) "linguistic signs". Maritain observes of this larger notion, this surplus creating the admixture whereby the whole of culture is textualized:⁴⁴

The term *language* does not relate only to the words which we use, it covers also all that which serves us to make ourselves understood, and therefore the whole imagery which we use and which is that of the persons to whom we speak, at such and such a moment of time and in such and such a place on earth. (Supposing that through some telephone through duration we could tell a contemporary of Julius Caesar something which concerns our epoch, could we speak to him of airplanes and of electronic machines, of the British Parliament, or of the Presidium of the Communist Party? The other person would not understand anything; it would indeed be necessary to use the imagery furnished by his own type of culture, as well as his own words and his own syntax.)

Given the coextensiveness, then, of textuality with the objective world of human experience (of a *Lebenswelt* in contrast to a pure *Umwelt*, let us say), the question becomes one of how to construe the "linguistic admixture" demonstrable within every semiological system—that is, within the totality of human experience, including the experience of "nature" so-called. This question brings us to the heart of the matter of what semiotics finally is, and what it has to contribute to the study of either branch or any subdivision of the accepted division of university studies today into the "sciences" on the one hand and the "humanities" on the other, including literature.

6. A Matrix for All the Sciences

The main point in this regard is that semiotics pertains to a renewal of the foundations of our understanding of knowledge and experience across the board, and hence to a transformation of the disciplinary superstructures culturally distributing that understanding (the traditional disciplines as currently founded). Semiotics also pertains to the renewal of any single currently established discipline within, say, the humanities, but only by way of achieving a proper understanding of semiosis itself in some particular. It is thus not just a question of putting aside the ill-advised or, as Culler more mordantly

44. Maritain 1964: 91.

muses,⁴⁵ “futile attempt to distinguish the humanities from the social sciences”. It is, rather, a question of new foundations for the “sciences” in the ancient sense of the whole panoply of disciplinarily diversified human knowledge—be the object of the diversity “human”, “natural”, or “social” (in the current description). Semiotics is a perspective concerned with the matrix of all the disciplines, precisely as they are offsprings within experience of anthroposemiosis.

This claim is at the heart of semiotics’ so-called “imperialism”. It is not a question of imperialism, however, but of recognizing the role of experience as the ground of understanding throughout and the centrality of history in making of that ground a rich soil. It is more a question of *recovering from* the imperialism of the natural sciences, physics in particular, as the distinct heritage of positivism, and of seeing the subsets of semiosis within anthroposemiosis for what they are in relation to the whole.

Floyd Merrell makes the point nicely, in a note on his recent text:⁴⁶

... in general the hermeneutical movement has been beneficial insofar as it has directed attention to the role of interpretation and understanding in the humanities. However, Stephen Toulmin observes, and rightly so [1982:99–100], that this movement “has done us a disservice” also because it does not recognize any comparable role for interpretation in the natural sciences and in this way sharply separates the two fields of scholarship and experience. Consequently,... the central truths and virtues of hermeneutics have become encumbered with a whole string of false inferences and misleading dichotomies.

A truly “radical hermeneutics”, such as Caputo calls for,⁴⁷ must first of all come round to the semiotic point of view, for that point of view, that standpoint, achieved its first systematic expression precisely by an author⁴⁸ realizing and thematizing the point that interpretive activity or “hermeneutics” (the privileged term for the notion then was “perihermenias”, as I noted elsewhere⁴⁹) is coextensive with the life of the mind—and, we would add today, extensive of nature itself as engendering life.

This is the governing insight of the semiotic enterprise integrally conceived in all its phases and periods. Semiotics provides a perspective on the whole of experience in what is proper to it as experience. In achieving this, it becomes “first” among the sciences not as one among the others, such as traditional metaphysics envisaged, but as *doctrina*

45. Culler 1981: 20.

46. Merrell 1988: 262 n. 12.

47. Caputo 1987.

48. Poinot 1632: 38/1ff., commentary in Deely 1985, 1988.

49. Deely 1982: 188n.16.

contrasts to *scientia*⁵⁰ and as what is first in the understanding contrasts with what is derivative therefrom.⁵¹

It is thus a question of realizing what is proper to the semiotic point of view, and of distinguishing what is foundational from what is consequent thereto and partial thereof. From the beginning, both from outside⁵² and from within,⁵³ the semiotics movement has suffered from practitioners who mistook some part of semiosis for the whole of semiotics and who systematically strove to reduce the perspective of semiotic to the perspective of that preferred part with which they identified it. From within, the problem has been more serious, in that the European influence after Saussure, only now beginning to be absorbed and meliorated in the broader American influence emanating from Peirce, has created in the popular consciousness a de facto equation of semiotics with structuralist and literary concerns. To this day, in much of the literature sociologically defining the contemporary development of semiotics, a naive assumption remains transparently at work equating the semiotic point of view with literary preoccupations and tending toward the explicit extreme of equating semiosis with "the product of encoding signs".⁵⁴ Thus, as prominent an author as Robert Scholes is able to assert⁵⁵ that, "usually defined as the study of signs (from a Greek root meaning *sign*), semiotics has in fact become the study of codes".

To all such views (the gamut of writings more or less dominated by the tendency within semiotics toward this explicit extreme) apply Sebeok's blunt rejoinder⁵⁶ to Hawkes:⁵⁷ "Nothing could be a more deluded misconstrual of the facts of the matter,

50. Williams 1985; Anderson et al. 1984; Sebeok 1976a: ix.

51. Deely 1987, 1988, 1988a.

52. For example, Ricoeur 1981 and after.

53. The most startling example of mistaking semiotics from within is provided by the late notes of Bakhtin, who seems never to have recovered from his youthful conception of semiotics as of a piece with Russian Formalism (Bakhtin 1970-1971: 147): "Semiotics deals primarily with the transmission of ready-made communication using a ready-made code. But in live speech, strictly speaking, communication is first created in the process of transmission, and there is, in essence, no code". But see also Culler 1977.

This conclusion, especially to scholars steeped in Bakhtin, is inscrutable. I interpret "there is, in essence, no code" to say that "prejacent to and independent of the anthroposemiosis itself there is no actual code". This is suggested to me by the fact that the fragment containing the quotation in question ends abruptly in the middle of a tantalizing sentence, posing "The problem of changing the code in inner speech...". This, however, is only a guess.

What seems clear to me is that, in setting his own work (unmistakably and centrally semiotic in our terms) over against semiotics as he does, Bakhtin himself illustrates the prevalence as well as the seriousness of the misunderstanding behind the *pars pro toto* fallacy whereby a linguistic or literary semiotics comes to fancy itself as autonomous.

54. Morgan 1985: 8.

55. Scholes 1982: ix.

56. Sebeok 1984b: 2.

57. Hawkes 1977: 124.

but the speciousness of this and associated historical deformations are due to our own inertia in having hitherto neglected the serious exploration of our true lineage.”

What is fundamentally misguided about the semiological tendency to treat intertextuality as a self-contained whole, centered on the literary sign and closed in upon itself through an unlimited (but autistic) semiosis, is the compartmentalization of culture from nature by the inappropriate importing of the presuppositions of idealistic philosophy into the perspective opened by the sign. The perspective opened by the sign is as removed from idealism as it is from realism in the requirements proper to its own development. The study of sign action cannot properly be confined to the boundaries of the artifactual nor measured by the paradigm of linguistic exchanges. If such study is artificially so confined and measured, it is cut off from the context required ultimately even for the intelligibility of the literary, as Johansen demonstrates in his “Prolegomena to a semiotic theory of text interpretation.”⁵⁸

If, while striving to be semiotic, a perspective takes for its object specifically literary textuality as constituted terminatively, that is, as itself objectified and scrutinized as known—much as if it were the “given” for semiotics comparable to the stones of the geologist or the reptilian bones of paleontology—such a perspective has yet to achieve the standpoint proper to the sign. The perspective proper to semiotics arises rather, exactly as in Locke’s anomalous conclusion,⁵⁹ with the idea of the idea as a nexus of relationships that carry the cognizant subject beyond itself and constitute at the same time, on the basis of a cognitive map of the environment, an *Umwelt*, which is strictly irreducible to the preajacent physical and species-specific for every life form, including the human one. This human *Umwelt* or “*Lebenswelt*”, as we have seen, in contrast to the *Umwelten* of purely zoösemiotic life forms, has a unique texture through which it is transformable into an asymptotic number of variant models, through the unique *moyen* of language.

In the end, the idea of reality as the species-specific objective world is what gives intelligibility and place to the activity of all criticism, whether it aims at developing one side of the contrast between the environmentally given and the specifically constructed, as in literary criticism, or at distinguishing the specifically constructed in order to concentrate on the environmentally given, as in much scientific criticism. The relationship of *Innenwelt* to *Umwelt* is such that we finally understand that what has been called “fiction”, for example, is not an imitation of something else so much as an expression of a semiosis that makes of the something else just as easily an imitation of what began as fiction.⁶⁰ In this way, as Culler puts it (1981: 38), “one of the effects of

58. Johansen 1985.

59. Locke 1690: 361–362.

60. See Toews’ analysis of contemporary historians in terms of “William of Baskerville” in Williams and Pencak 1991: 351–384.

semiotics is to question the distinction between literary and nonliterary discourse”.

It is a question of remodeling the world—the objective world—but as this objective world includes in its proper being something also of physical surroundings. The question is not so much simply that “realism is in essence deeply mythic”⁶¹ as that reality—the reality of human experience, wherein the line between what is dependent upon and independent of interpretive activity can never be finally drawn because that very line itself shifts with each new achievement of understanding—is in essence thoroughly semiotic.

Literature, as the most presuppositioned and purely objective phase of anthroposemiosis (able to deal directly with the object as nonexistent instead of having to discover its nonexistence by chagrin, as sometimes happens in natural science or in history), requires the most complete account of signification. While a literary “text itself need not refer to any past experiences”, nonetheless, “experience of objects, actions, or events, similar to what is referred to in a given text, is a prerequisite to the understanding of it”⁶².

7. A Model for Discourse as Semiosis

That and how the universe of discourse—any discourse, including literary—“is bound up with the experience of the parties” to the discourse is what the literary scholar Dines Johansen has shown in an essay expressly regarding the problem of situating literature and literary criticism within the more general purview of semiosis as it is regarded in the major tradition of contemporary semiotic development. We can usefully introduce Johansen’s model for anthroposemiosis,⁶³ as including specifically the literary. The model is here editorially modified, mainly by enhancing by explicitly labeling the identification of the ten axes defining the planes constitutive of “the semiotic pyramid”. Johansen’s reasons for introducing this model are also our own:⁶⁴ on the one hand, it is intended as a heuristic device which should make it possible to recognize the multiple relationships of each element; on the other hand, it should further the inquiry into the nature of the signifying process by calling attention to the interrelations between certain aspects of meaning production and interpretation, and, of course, by provoking objections (see Figure 3, following).

61. Con Davis 1985: 56.

62. Johansen 1985: 261–262; cf. King 1987.

63. Johansen 1982: 473, 1985: 266.

64. Johansen 1985: 265.

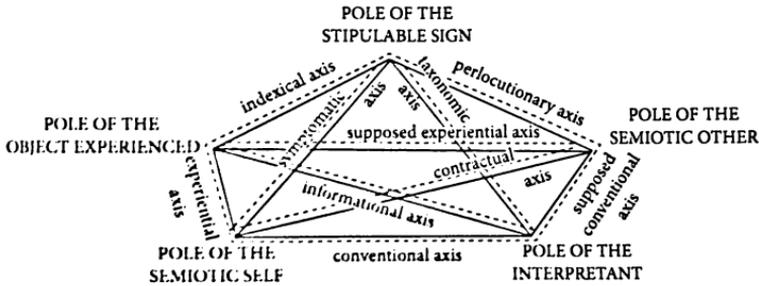


Figure 3 The Pyramid of Anthroposemiosis

For purposes of making explicit critical possibilities afforded by this model for approaching explication of texts of whatever objective type, we might here fruitfully redistribute the pyramid according to the ten interdependent triangular planes comprising the model—six radiating from the sign-pole, four from the organismic poles of interpreter and utterer—in order to underscore how presuppositioned and farthest removed from autonomy (“the myth of intertextuality and intersemioticity”, as we might say) a literary semiotics is in the scheme of experience. In effect, Johansen’s pyramid can be made to serve as an interpretant for Bakhtin’s remark⁶⁵ that the language of a novel “is a system of intersecting planes” which, moreover, bind it to common experiences underlying scientific texts as well (Figure 3, above).

If one enters seriously into Johansen’s argument that the semiotics of texts, when pursued integrally rather than according to faddish abstractions, involves one with all these planes simultaneously (but according to emphases that, of course, can be varied for the purposes of the analysis at hand), one also begins to see how a literary semiotics might be constituted in the full scope of the possibilities afforded to it by the doctrine of signs.

These possibilities are made visible precisely when the foundational inquiries of the doctrine of signs are made commensurate with the full scope of semiosis, as a process subtending the whole of nature so far as nature involves a development in time along lines that transcend the physically established patterns of any given moment in the cosmic evolution. As that framework makes itself visible in the diverse works contributing more and more consciously to its edification, we see that the “place marked out in advance” for semiotics and giving it “a right to existence”, in Saussure’s curious expression,⁶⁶ is something that cannot be defined in a way exclusive of any activity of interpretation but rather can be defined only inclusive thereof.

65. Bakhtin 1975: 48.

66. Saussure i.1906–1911: 33; cf. A. Russell 1982.

To study the sign is to uncover semiosis, and therewith a web as vast as nature itself. The arrangement, the web of renvoi sustaining the environmental and sensible elements at each moment according to patterns that are not themselves sensible nor reducible to what is sensible, constitutes the semiotic object in its full possibilities for understanding.

This is a "reality" quite different from that preajcent given in which the mind had no part and to which the observer contributed hopefully nothing, conceived by the medievals and sought by the moderns. Nor is it a reality wholly reducible to the mind's own workings on the basis of a hidden outer realm and a hidden inner mechanism of understanding linked only by the phenomena constituted by the mind itself, as Kant concluded. Something much richer than either reduction, something more collusive even than the rapport between fly trap and fly in the realm of insects and flowers, this newer paradigm—in a phrase, semiotic reality—recognizes that the boundary between what is dependent upon and what is independent of interpretive activity can never be finally fixed from within experience because the boundary itself fluctuates in function of the development of understanding, whether "speculative" or "practical", "scientific" or "literary".

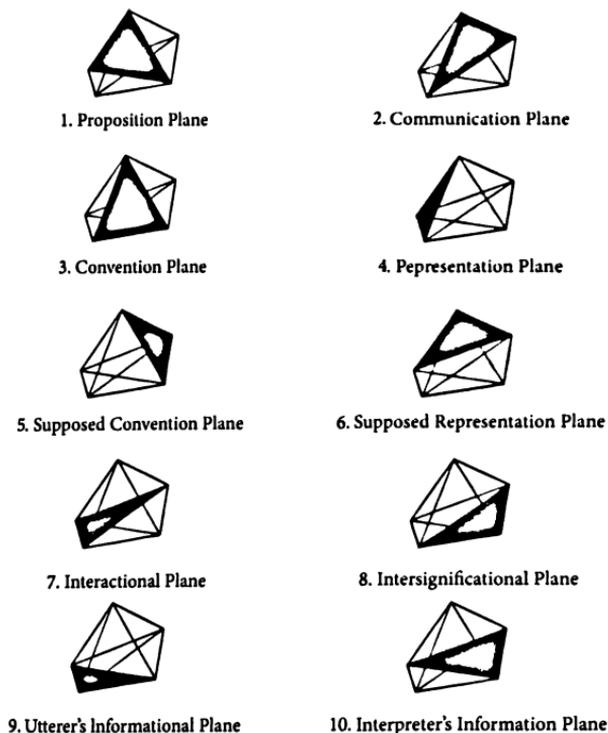


Figure 4 The Planes of Semiosis within Discourse

Like the human sciences themselves, “semiotics is not only a field of different approaches to a unique object but also a field of sometimes conflicting philosophical definitions of this unique object”.⁶⁷ Furthermore (and in this it provides the matrix for natural science as well), semiotics is the field studying the process whereby any object is constituted in its full actuality as known: not simply as a process in nature, but also as the *prise de conscience* whereby nature becomes fully aware of itself and achieves its final totality in the transcendence over physical being. This process of transcendence begins with the historical *Umwelten* and is fully realized in the reflexivity of the *Lebenswelt* that makes of each text a prospective intertext incorporating life and fiction and the whole of nature as well through a semiosis metaphysically unlimited—and even physically, though limited, not wholly determinately so. This situation has been personified by Floyd Merrell⁶⁸ in a creature far more worthy of the talents of Disney artists than the pedestrian Roger Rabbit. Imagine a filmic rendering of *the Chimerical Octopus*, constructed on the following plan:

Consider each sign possibility to be a point... with an infinite set of lines connecting it to all other points in the universe.... Each sign-point is like a chimerical octopus whose body is the point and whose tentacles are the infinite number of lines emanating from that point ready to suck in one or more of all the other sign-points, which then become its interpretant and hence another sign-point. (Actually, more in accord with Laplace and God, each tentacle would have an eye at its extremity enabling it to “see” all other sign-points simultaneously.)

This entire conglomeration of lines, to be true to form, will have certain characteristics: (a) the whole can be “cut” at any point and reconnected along any one of its lines, like Peirce’s amorphous “book of assertions”;⁶⁹ (b) at a given instant the conglomerate is static (the synchronic dimension), but it holds the possibility for all future connections (the diachronic dimension)—this instant is not the Saussurean slice out of the semiological salami, it is the entire conglomerate given “en bloc”, holding all past, present, and future possibilities; and (c) the conglomerate is self-contained, twisting and doubling back on itself, like Einsteinian space-time (called the “block” universe), or like an infinity of infinitely thin Möbius strips intersecting each other at the point of their twist. However, (d) with respect to finite sign users, unlike point-octopuses, all observations and relations must remain inside: there is no global vision, for immanence rules—commensurate with quantum theory, which has demolished the classical view of subject/object and observer/observed. And (e) there can be no complete description of the whole since, commensurate

67. Eco 1979: 77.

68. Merrell 1988: 260.

69. See Peirce 1903: 4.512.

with Peirce's plastic "book of assertions", logical connections do not remain the same over time, and since, with our own finite number of appendages and sensory organs, we can never process all signs in an instant.

8. Summation

Among the human sciences, semiotics is unique in being a study concerned with the matrix of all the sciences, and in revealing the centrality of history to the enterprise of understanding in its totality. The centrality of history to understanding is revealed through the codes of culture that alone sustain, beyond the individual insight, the *commens*⁷⁰ or shared mentality that defines a language (such as English), a discipline (such as physics or literary criticism), a subculture (such as the Gays), a nation (such as Israel), and, ultimately, civilization itself in all its conflicting strands of historically embedded interpretations giving structure to the everyday experience of the conspecifics capable of language. We can thus say, in view of the larger sense of language sketched by Maritain and insisted upon independently by Bakhtin:⁷¹ "in living speech, messages are, strictly speaking, created for the first time in the process of transmission, and ultimately" (that is, pre-jacent to, and independent of, the anthroposemiosis itself) "there is no code"—even though, like sound waves on the side of nature, codes may play a supporting role and even result from the message.

In this perspective, criticism can contribute in its own right to bringing into explicit objectivity contributions of the understanding that have been left in a virtual state of exercise rather than expressly signified and recognized. This would be criticism at its best, criticism displaying the rich art of evaluating and analyzing with knowledge and propriety the works of civilization, especially art, music, and literature, wherein the free play of intellect and the full contrast of the objective to the biological and physical orders come into pre-eminence. Such a criticism, far from being equated with semiotics, would participate in the development of semiotics, a development drawing into its network of *renvoi* the whole of past thought, present science, and future civilization.

In this way the critical exercise will also contribute to, and perhaps even establish within semiotics, a formula more adequate to the full understanding of *anthropos* than any that has been devised heretofore.

70. Peirce 1906: 196–197.

71. Bakhtin 1971: 214, as cited in Todorov 1984: 56.

PHYSIOSEMIOSIS AND PHYTOSEMIOSIS

We noted in Chapter 3 that Peirce, by bringing the action along with the being of signs into the focus of a thematic inquiry, took one of the decisive steps in establishing the full possibilities for developing a doctrine of signs. This step marks the difference between the contemporary development of semiotics and all earlier stages, historically speaking, of a move toward semiotic consciousness. For, while the being proper to signs exists actually only within the context of experience (in precisely the sense that experience presupposes cognition), the action that underlies this possible being by no means presupposes cognition.

How to understand the actions of signs outside the context of cognitive life? If this could be achieved, the scope of semiotics as a possible science would become as wide as could be, for it would be commensurate with an activity and type of causality coextensive with the physical universe. Such a “broader conception” of the sign, as Peirce called it, would embrace all four of the levels identified in this book, to wit, the two levels of cognitive semiosis (anthroposemiosis and zoösemiosis), and two lower levels of semiosis not dependent on cognition as such (phytosemiosis and physiosemiosis), as appears in the following passage:¹

The action of a sign generally takes place between two parties, the *utterer* and the *interpreter*. They need not be persons; for a chameleon and many kinds of insects and even plants make their living by uttering signs, and lying signs, at that. Who is the utterer of signs of the weather...? However, every sign certainly conveys something of the general

1. Peirce c.1907: MS318 ISP 00205–00206.

nature of thought, if not from a mind, yet from some repository of ideas, or significant forms, and if not to a person, yet to something capable of somehow “catching on”,... that is, of receiving not merely a physical, nor even merely a psychical dose of energy, but a significant meaning. In that modified, and as yet very misty, sense, then, we may continue to use the italicized words.

Peirce’s remark² that “this universe is perfused with signs, if it is not composed exclusively of signs” may be regarded as a kind of capsule summary of this broader conception, and his much earlier enigmatic assertion¹ that “man is a sign” would be a kind of corollary.

But can this broader conception be justified? Is it warranted by the nature of semiosis? Clearly, the very attempt at such justification would require going beyond the bounds conventionally established for scientific thought, which we may say had already by Peirce’s day more or less dogmatically embraced the view of nature as engaged exclusively in chance interactions of a brute force character.

Conventional boundaries as such, of course, had no interest for Peirce when the inquiry demanded their violation, and such seemed the case with the problem at hand. To Peirce, the fact that a sign always signifies something to or for another suggested the need to reconsider the taboo notion of final causality, or so-called teleology.⁴ At least in the context of the biological sciences, such a move was to some degree inevitable. Later biologists⁵ would prefer to speak of “teleonomy”, to make the point that actual purpose in the individual sense is not necessary to account for the behavior (such as the rhythmic climbing of the female turtle onto the sand and laying its eggs) that the observer must ascribe to plan in nature in order to make scientific sense of the observations (a point also made by von Uexküll).

2. Peirce 1905–1906: 5.448n.

3. Peirce 1868: 5.314.

4. Ransdell (1977: 163) points out that Peirce expressly “thought of semiotic as precisely the development of a concept of final cause process and as a study of such processes”, a fact that his would-be commentators so far have treated as “an embarrassment, a sort of intellectual club foot that one shouldn’t be caught looking at, much less blatantly pointing out to others”—which explains “why the topic of final causation is so strangely absent in criticisms and explanations of Peirce’s conception of semiotic and semiosis” despite its centrality in Peirce’s own reflections and explanations.

For Poincaré, too, the question of final causality arises in the context of semiotic (1632a: Book I, Question 4, and editorial notes 10–12 thereon, pp. 174–178) but as expressly distinguished from the causality specific to the sign (see esp. 174/18–178/7), which is restricted neither to the order of actual existence nor to the order of intention (to signs as bearing an intention) and is operative even in chance events that signify as well virtually independently of any processes involving intention or cognition.

5. For example, Simpson, Pittendrigh, and Tiffany 1957; Pittendrigh 1958; Mayr 1974, 1983. See the discussion in Deely 2001:65–66.

But, in the larger physical universe of atoms, stars, and intergalactic dust, even such a moderate version of teleology is extremely difficult to sustain as pertaining to the particles and interactions themselves, especially those of a more random sort such as meteor showers, the bombardment of cosmic rays, the dispersion of light, etc. True, there is the fact of stellar evolution and planetary formation, in relation to which the formation of the elements out of more primitive atomic materials and the distribution of matter seems to be law-governed in statistically determinable ways rather than random. This non-randomness led thinkers such as Henderson⁶ to argue with considerable persuasiveness and empirical support that “physical science... no less than biological science appears to manifest teleology”. But the “teleology” here, if such it can be called, appears to be entirely external to the interactions themselves.

The problem is that, before the advent of living matter and continuing in the inorganic environmental factors taken in their own right, the inorganic components themselves (no matter how much they may be modified and dominated by vital processes and organic symbioses in a *gaia* situation, the situation of a living planet), seem overwhelmingly to enter the process of cosmic evolution only indirectly, through the direct process of random or chance interactions. Once these have occurred, the inorganic components are inevitably redirected by the nature of the particles or bodies interacting and result, through this redirection, in processes of complexification and cosmic development overall. The consequent development overall, however, does not disguise the fact of the random foundation. This undeniable substructure of chance encounters in a realm of brute secondness seems to pose a barrier to any possible extension of semiosis beyond the boundaries of the living world.

Nonetheless, by linking the action of signs to future-oriented changes in the world of nature, Peirce had clearly pointed the way to what Sebeok called attention to in the early 1960s as “a vision of new and startling dimensions: the convergence of the science of genetics with the science of linguistics...in the larger field of communication studies”. In this view:⁷

the genetic code must be regarded as the most fundamental of all semiotic networks and therefore as the prototype for all other signaling systems used by animals, including man. From this point of view, molecules that are quantum systems, acting as stable physical information carriers, zoösemiotic systems, and, finally, cultural systems, comprehending language, constitute a natural sequel of stages of ever more complex energy levels in a single universal evolution. It is possible, therefore, to describe language as well as living systems from a unified cybernetic standpoint... A mutual appreciation of genetics, animal

6. Henderson 1913: 305.

7. Sebeok 1968: 69.

communication studies, and linguistics may lead to a full understanding of the dynamics of semiosis, and this may, in the last analysis, turn out to be no less than the definition of life.

This indeed is a grand vision. It falls, however, considerably short of the broader conception Peirce had in mind in linking the sign to final causality.⁸ At the same time, it is probably as far as a conception of semiosis can effectively be made to reach on the basis of linking the causality proper to signs with any defensible notion of final causality.⁹ The linkage, quite apart from the question of its correctness, is insufficient to establish the range of the connection required for semiosis to pervade nature all the way to its cosmic foundations. Thus, while the “new and startling vision” of Sebeok considerably propelled contemporary semiotics beyond the boundaries of a glottocentrically conceived anthroposemiosis and in the direction of considering sign processes as at work throughout the biological world, it still provided no ground for a notion of physiosesemiosis, for seeing the action proper to signs as already at work in physical nature itself beyond the bounds of organic matter or prior to its advent.

To provide this further ground and to establish the Peircean broader conception of semiotics, therefore, would be the same thing. This other decisive step, taken together with the Peircean one of bringing the action along with the being of signs into thematic focus, is what is required to establish the full possibilities for a doctrine of signs.

This step depends on the further discovery that there is a more general causality at work in the sign than the final causality typical of the vital powers. This more general causality specifies vital activity but specifies also the causality at work in chance interactions of brute secondness. It is this causality, not final causality, that is the causality proper to the sign in its distinctive function of making present what it itself is not, for it is this causality, not final causality, that transforms, for example, accidental scratches into a clue leading the detective to the apprehension of the murderer.

The causality distinctive of semiosis, in its contrast with physical modes of causality, need not be goal-oriented in any intrinsic sense. On the contrary, it needs to be a causality

8. While retaining my earlier reservations about Sebeok's stand from the strict perspective in which they were conceived (the origins of fully actual semiosis in cognition), I again find it necessary not merely to repeat but to expand upon and deepen the broad-gauge adjustments to that restricted perspective I had already introduced (Deely 1982a) in first considering systematically the notion of phytosemiotics introduced by Krampen in 1981.

In my first round of criticism (1978a), I considered Sebeok's then-singularly large view of semiotics too grand. In my second round of criticism (1982a), I called it perhaps not grand enough.

Now I would like to strike out the “perhaps” and let it go at that, for the reasons developed in Deely 2001b and in this chapter.

9. The qualification is a crucial one, for only a very limited range of the notions associated historically with the notion of “final causality” retain any claim to critical consideration today. See the discussion of this point in the editorial notes to Book I, Question 4 of the *Tractatus de Signis* (Poinset 1632a).

equally able to ground sign-behavior in chance occurrences and planned happenings. On any construction, final causality cannot do this.

The decisive step in this regard was taken fully neither by Poinset nor by Peirce. It can be taken from what is set forth in Poinset's *Treatise on Signs*¹⁰ but only once the problematic of the sign as a whole has been redefined so as to make the action of signs equiprimordial with their being. Thus, taking the decisive step requires first that we straddle the work of both thinkers, even though the step to be taken is more immanent to what Peirce had in mind for semiotic than it is to anything Poinset explicitly envisioned for the doctrine of signs. Here, where each of them in steps taken separately had come up short, in a doctrinal convergence between them, lies the basis for the decisive final step of extending semiotic understanding beyond the sphere of cognitive phenomena to the whole of nature itself. With this step, the broader conception Peirce dreamed of becomes realized.

To see how the dream becomes real, let us begin at the point where Peirce was tempted to despair of his broader conception. Then, by expanding outward from this point, removing step by step each of the reasons for a temptation to settle for a more restricted notion of the sign, we will be able to end up with a warranted version of the broader conception and of all four of the levels it implies.

Before there are actually signs, there are signs virtually, that is, there are beings and events so determined by other beings and events that, in their own activity as so determined, they determine yet further series of beings and events in such a way that the last terms in the series represent the first terms by the mediation of the middle terms. As Craik put it,¹¹ "It is only the sensitive 'receptors' on matter, and means of intercommunication... which are lacking".

10. Poinset 1632a: Book I, Question 4, and Appendix C. As Powell wrote to me (letter of 16 December 1988): "the extension of extrinsic formal causality from specifier of vital powers, active and passive (Poinset 1632a: Book I, Question 4), to specifier of categorial relations (Appendix C: 382/14ff.) concerns precisely *physiosemiosis*. For the specification of categorial relations extends to the universe at large..."

Concerning this Appendix C, we had already explained in 1985 (p. 450) that we had added it to the Books of Poinset's *Treatise* with a view to the questions of research strategies, "but in a very specific way. It is provided to ground in Poinset's text the Peircean idea of extending semiotic understanding beyond the sphere of cognitive phenomena to the whole of nature itself as a network virtually semiotic in character... The discussion in this Third Appendix... extends and completes the discussion of objective causality in Book I, Question 4, of the *Treatise on Signs*".

Moreover, in Peirce's work a tendency toward what is set forth in Book I, Question 4, specifically as completed by the ideas of the editorially added Appendix C, is definitely marked, inasmuch as Peirce groped in the direction of a distinction between "ideal" and "final" causality, along the lines Poinset had earlier established for semiotics under the rubric of "objective" or "extrinsic formal" causality. See the remarks in the next chapter, where Peirce is considered in the context of the history of semiotics.

11. Craik 1967: 59.

The actions and relations in such a series are actually at the level of secondness. But, even at that level, they anticipate the intervention of cognition and experience: they so stand to one another in relations of determining and being determined that they constitute a *pattern of knowability*, a *virtual thirdness*, which, should it come to be actually known in some context of experience, will exhibit precisely that element of thirdness, that irreducible elemental type of representation, constitutive of the sign relation.

The years 1908 and 1909, in this respect, seem to have been a period of crisis and some despondency for Peirce in his project of establishing semiotic. In 1908, in a letter to Lady Welby, he tossed in despair his famous "sop to Cerberus", introducing the notion of "person" into his definition of sign:¹²

I define a sign as anything which is so determined by something else, called its object, and so determines an effect upon a person, which effect I call its interpretant, that the latter is thereby mediated by the former. My insertion of the term "upon a person" is a sop to Cerberus, because I despair of making my own broader conception understood.

If, as is to be expected, the term "person" here is equivalent to "human being", then the term "sign" so qualified would be restricted to the region of anthroposemiosis. In order to reach Peirce's "broader conception", therefore, it is necessary to remove this qualification and consequent restriction, which may do with the following abstract formula: a sign will be any A so *determined* by a B that in *determining* C that C is mediately determined by B. Thus, B determines A, and, precisely in the respect in which B has determined it, A determines C. Therefore C, in being immediately determined by A, is at the same time mediately determined by B. We see here the most primitive and abstract form of the semiotic triangle that is behind the "pyramid of anthroposemiosis" looked at in the last chapter:

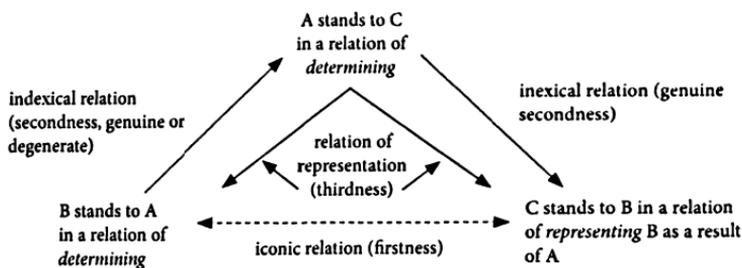


Figure 5 Abstract Version of the Semiotic Triangle

12. Peirce 1908a: 88–89.

In other words, C is passive to A in just the way that A is passive to B; but, precisely by reason of being passive in this way, C is virtually active respecting both A and B as a representation or representative element. Let B be rain and A the clouds whence the rain precipitates, and C be the experience of an organism caught in the rain. The effect of being caught in the rain will establish for the organism a new relation to B whereby A will henceforward exist for C as a sign of B, thus:

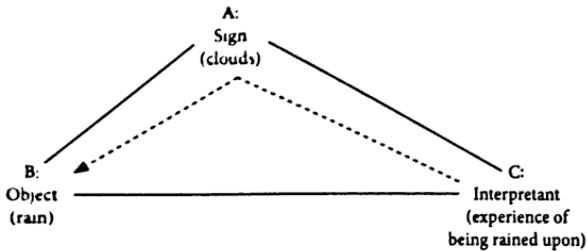


Figure 6 Concretization of the Triangle within Animal Experience

Or let A be the bone of a dinosaur buried in what we saw in Chapter 4 would become a garden, and let B be the dinosaur long dead. C in this case would not be the effect of the bone on the gardener, for that, as we saw in concluding Chapter 4, did not result in an actualization of the transcendental relation—the representative element—of the bone to the dinosaur. The effect of the bone on the gardener did not make of this relation a sign. Nonetheless, the element representative in this respect was there, identical with the bone, but needing to be actualized. It was there, of a piece with the bone in physical being, but virtually distinct therefrom. When the paleontologist came along, however, this virtuality was actualized. The perceptual effect of the bone on the paleontologist, but not on the gardener, triggered the virtual element whereby the bone actually represents the dinosaur. Hence Poinso's formula:¹³ "It suffices to be a sign virtually in order to signify in act".

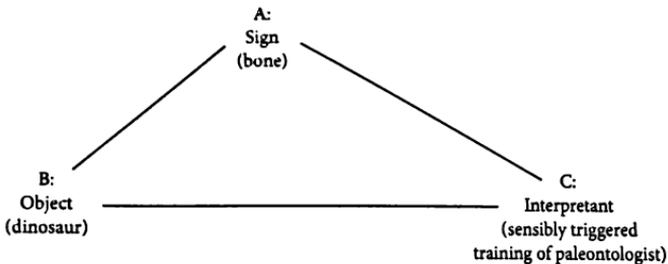


Figure 7 Concretization of the Triangle within Human Experience

13. Poinso 1632a: 126/3–5.

Thus, again, let B be the dinosaur, A the bone, and C a geological formation in which the bone has been turned to stone.

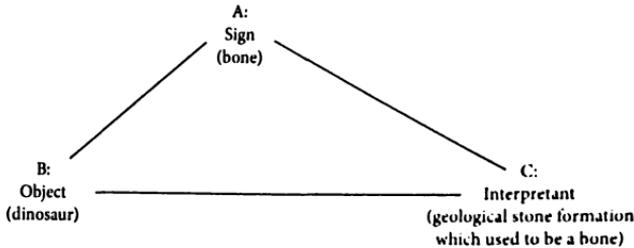


Figure 8 Concretization of the Triangle within the Environment

In this case the interpretant is a physical rather than a psychical structure but one that has been so determined by A as to represent through A also B. In this way the interaction is a virtual semiosis, that is, a series of interactions at the level of secondness that, at the same time, provides an actual pathway through time whereby it is possible that what happened long ago might be partially understood. The present, indeed, from such a standpoint, might be regarded as a mosaic of traces from the past, each providing the starting point, for a sufficiently knowledgeable present observer, of a journey into what used to be. Notice that it is not necessary that such possibility be actualized in order for it to be possible. Nor is it merely “possible” in some abstract, conceptual sense. Our example, for example, exists in the geological formation virtually. The bone (A), or the rock formation that used to be a bone (C), is “not a sign formally but virtually and fundamentally”, as Poinot puts it:¹⁴

For since the rationale of moving or stimulating the mind remains, which comes about through the sign insofar as it is something representative even if the relation of substitution for the signified does not remain, the sign is able to exercise the functions of substituting without the relation.

We see, thus, at once: how the interpretant is fundamental to the semiosis, that the interpretant need not be a psychological state or idea, and why the interpretant is itself a sign or link in what Eco calls the chain of “unlimited semiosis”.

Since it is through its fundament that the sign is a representation, and it is through this being of representation that the sign is involved in the brute force interactions of secondness and physical existence, it follows that the virtuality of signs is present and

14. Poinot 1632a: 12–18.

operative throughout the realm of nature, and not just among the animals where signs exist and function in their proper being actually as well as virtually.¹⁵

Moreover, this virtual semiosis prior to any cognitive life is not restricted to passive reflections in present being of past interactions, such as we have considered so far. Virtual semiosis is also at work in the ways that present interactions anticipate future conditions radically different from what presently obtains. In other words, present effects are virtual signs not just retrospectively, but prospectively as well. They portend, and do so in two ways. First of all, in any given interaction of bodies, over and above the resultant relations of cause and effect (acting and being acted upon), there is the fact that each of the bodies involved interprets and twists the action according to its own intrinsic nature. In this way, as Powell puts it,¹⁶ "the extrinsic specification of causal relations always reveals indirectly the intrinsic species of the bodies which are their extrinsic specifying causes". For example, if I strike the armor of a tank, a porcelain bowl, or the trunk of a tree with a hammer, the relation of agent to patient is in all three cases the same; or, as Powell again puts it,¹⁷ "spatiotemporal/real causal relational systems do not have determinate intrinsic species as bodies do". However, owing to the intrinsically diverse properties of steel, porcelain, and wood pulp, the effect will be likewise diversified in each case.

Thus, dyadic interactions, as extrinsically specified by the bodies involved at the level of secondness, also project a virtual level of thirdness that anticipates changes in future states respecting the interactions occurring here and now. And the measure of these interactions occurs through precisely the same type of causality operative in the sign, whereby it achieves indifference to the being and non-being, presently considered, of what is signified.¹⁸

15. Peirce 1908b: 8.343: "it is necessary to distinguish the *Immediate Object*, or the Object as the Sign represents it, from the *Dynamical Object*, or really efficient but not immediately present Object. It is likewise requisite to distinguish the *Immediate Interpretant*, i.e., the Interpretant represented or signified in the Sign, from the *Dynamic Interpretant*, or effect actually produced on the mind by the Sign; and both of these from the *Normal Interpretant*, or effect that would be produced on the mind by the Sign after sufficient development of thought.... I do not say that these divisions are enough." Cf. 1909: 8.314; 1904.

16. Powell 1986: 300.

17. *Ibid.*

18. Foinot (1632a: 382/4–26) extends extrinsic formal causality, that is, the objective causality of semiosis, from specification of vital powers to categorial or physical relations as such, in the following manner: "distinction has to be made between the terminus understood most formally in the rationale of an opposed terminus, and the terminus understood fundamentally on the side of the subjective being founding this rationale of terminating. In the former way a terminus concurs in a specification purely terminatively, but not by causing that specification, because so considered it is a pure terminus and simultaneous by nature and in cognition with the relation; therefore as such it is not a specifying cause, because a cause is not naturally simultaneous with but prior to its effect. If it is considered in the latter way, the terminus stands as an extrinsic formal cause and specifies in the manner of an object, and in this way a single specifying rationale of the relation arises from the foundation and terminus together, inasmuch as the foundation contains the terminus within itself by a proportion and power; for it is not relative to a given

Here, however, in the direction of future states, the virtuality of the semiosis is more complicated. The reason is that the direct deflection of the results of the interactions itself can lead to changes in the immediate constitution of what does the interacting—as, for example, when one of the interactants is destroyed by the interaction, or when the interaction triggers a new phase in the development of one of the interactants, or when a specifically new type of being (such as a new atomic elementary formation) results from the interaction. Here, Peirce's idea of scientific laws existing as habits in nature as a whole would seem to find, as it were, a semiotic grounding. For, over and above the individual interactions of bodies, there is a macroformation of the universe that takes place directionally, as it were, toward the establishment of conditions under which virtual semioses move always closer to actuality.

Out of cosmic dust, stellar systems form through subatomic, atomic, and molecular interactions. At various stages of the process, new elements not previously given precipitate from the interactions, even as now on earth we can in laboratories bring into being a few elements not yet existent in nature itself. These elements, in turn, prove essential to the formation in planetary systems of the conditions under which living beings become possible, and these beings, in turn, further modify the planetary conditions so that successive generations of living beings are incompatible with the original conditions of life. Oxygen, essential for life on this planet now, for example, was originally introduced as a waste product of living beings who neither needed nor could survive within a heavily oxygenated atmosphere.

Through this entire series of intersecting and often conflicting processes resulting in cosmic evolution overall, the specificity and identity of any given process at each step is guaranteed not by individual bodies but by systems of commonly specified real relations between bodies, that is, by specifically identifiable categorially determined systems of ontological relations. Within these systems individual bodies *further* determine their immediate interactions according to their own intrinsic natures. In the case of organisms this determination in turn depends on a whole sub-system of interactions indisputably semiotic in nature, as Sebeok has pointed out.¹⁹ The relational systems as a whole and

terminus unless it is a specific fundament, and conversely. In this way, to the extent that they are mutually proportioned, terminus and foundation together bring about a single rationale specifying a relation which postulates both a specific foundation and a specific terminus corresponding thereto."

"From these remarks one can further gather what a formal terminus is in the rationale of something specifying. For although specifically different relations can be anchored to the materially same terminus, yet they cannot be anchored to the *formally* same terminus. But the formal specifying rationale in a terminus is understood in accordance with a correspondence and adequate proportion to its fundament.... Wherefore, as regards the specifying of any relation, in just the way that the fundament is understood under the final rationale of the grounding of the relation, so the terminus of the relation is understood under the proportion and correspondence of the terminating."

19. Sebeok 1977a, 1988, 1989a.

the interactions within them form throughout a single web of at least virtual semiosis, governed at each point by the objective causality of the sign virtually at work throughout. This causality corresponds to the plan in Jakob von Uexküll's distinction²⁰ between goal and plan in nature and is, as Powell points out,²¹ "prior to the well-known Aristotelian four causes, the agent, the final, the formal, and the material cause":

It is precisely the function of extrinsic formal causality to displace the agent and final causes by a more elementary cause which is not committed to explaining how interaction could be understood. Thus the solar system is explained as a mechanism specified by extrinsic formal causes without needing any explanation by agent causes (let alone by final causes which have not been recognized by science since the seventeenth century). For Einstein's general theory of relativity precisely eliminated gravitational forces from explanation of the solar system, by substituting the curvature of space time for gravitational forces.²² Now gravitational forces are agent causes, whereas the curved space-time that governs the path of the earth around the sun is an excellent example of extrinsic formal causality... because that path consists of specified temporal relations between the earth and the other bodies of the solar system... plain cases of extrinsic formal causality.

Thus, Peirce's discouragement at establishing his broadest conception of semiosis proves unnecessary,²³ once it is understood that the specification of categorial relations in the universe at large already puts into play the causality upon which the action of signs depends: already at the level of their fundaments, signs are virtually present and operative in the dyadic interactions of brute force, weaving together in a single fabric of virtual relations the future and the past of such interactions.

This is semiosis, but semiosis of a specific kind. I propose that we call it *physiosemiosis*, so as to bring out by the very name the fact that it is a question here of a process as broad as the physical universe itself. For this process is at work in all parts of it as the foundation of those higher, more distinctive levels of the same process that come into existence as the conditions of physical being themselves make possible the successively higher levels first of life, and then of cognitive life. Thus, the definition of semiosis is not just coextensive with the definition of life but broader than it.

Nonetheless, the transformation of physiosemiosis within specifically living interactions, even prior to any question of cognition as such, is dramatic, and requires

20. J. Von Uexküll 1934: 42–46.

21. Powell 1988a: 180, 186.

22. Hawking 1988: 29–30.

23. Likewise unnecessary was his desperate earlier resort to pansy chism as a ploy for introducing thirdness into the realm of inorganic matter (Peirce 1892: 6.158, 1892a: 6.268), which yet failed to solve the problem of *experienced* thirdness (c.1909: 6.322) as required by the sign for its proper and formal being.

a specifically identifying label. For physiosemiosis simply links the intelligibility of past and future, while looking to the future beyond interacting individuals only accidentally,²⁴ whereas the semiosis virtual to living matter is essentially oriented at once to the preservation as well as the propagation of the units interacting, and is thereby essentially future-oriented.²⁵

It is probable that orientation to the future is operative in semiosis from the first. Certainly this is true if Henderson's unorthodox early view²⁶ that "physical science... no less than biological science appears to manifest teleology" ultimately proves correct.²⁷ Nonetheless, the above distinction between physiosemiosis, which depends on chance events for achieving its future orientation, and the semiosis of living matter, which essentially turns chance events toward the future, suggests the boundary line between physiosemiosis and phytosemiosis, the "semiotics of plant life"; as Krampen calls it, or of living matter in general.

Krampen, basing his view on the work of Jakob von Uexküll, uses a contrastive "method of opposition" to show how the meaning-factors work in an environment which lacks the Umwelt-structure introduced by cognitive interactions.²⁸ "Using the example of the leaves of an oak tree", Krampen remarks,²⁹ "Jakob von Uexküll shows how phytosemiosis functions":

One of the meaning factors, as far as oak leaves are concerned, is the rain. Falling raindrops follow precise physical laws governing the behavior of liquids upon striking a leaf. In this

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24. I say that physiosemiosis looks to the future only in a comparatively accidental or tangential way, inasmuch as, in the case of inorganic agents, which cause only as they are moved, "from the very movement that they undergo they are ordered to producing effects. And similarly in all cases where a good of any kind accrues to the cause from the effect" (Aquinas c.1265-1267: q. 7. art.10), such as Powell's example (1986: 297) of the senselessness of saying that "the causal relation whereby one cat scratches out the eye of the other is specified by a final cause". For even though "one and the same motion is a 'good blow' for the one scratching out and a 'disaster' for the one losing its eye", the good (and the "disaster") pertains directly to the individual circumstances of the cats, not to their specific natures as belonging to a determinate biological population.
25. Furthermore, in the case of anthroposemiosis, the preservation and generation of culture is future-oriented *beyond* mere biological propagation, a point that completes the grand view of a progression through past-future relations from physiosemiosis to anthroposemiosis. This is a progression, however, in which the successive levels of transcendence do not fully leave behind, but rather contain and continue according to varying requirements, the previous levels.
26. Henderson 1913: 305.
27. If the power of Henderson's arguments was outweighed by their unorthodoxy in the scientific community of his day, that is rapidly ceasing to be the case in the age of Gaia (Lovelock 1979), where the recognition at last of delicate interdependencies within our own planetary ecology and between that ecology and the solar and cosmic radiation through which our planet moves have begun at long last to become themselves objectified as well as physical.
28. Cf. von Uexküll 1982: 5-6.
29. Krampen 1981: 195.

case, according to Jakob von Uexküll, the leaf is the “receiver of m”, coupled with the m factor “rain” by a “meaning rule”. The form of the leaves is such that it accommodates the physical laws governing the behavior of liquids. The leaves work together by forming cascades in all directions in order to distribute the rain water on the ground for optimal use by the roots. To put it in more common semiotic terminology, the leaf’s form is the signifier and the physical behavior of the raindrop is the signified. The code coupling leaf and raindrop is the oak tree’s need of liquid for the transport of nourishing salts into its cells.

Of course, from the point of view of present planetary conditions, plants have played and continue to play, especially in the great rainforests, a crucial evolutionary role, one that began with bringing about an oxidizing atmosphere (about a billion years ago), then sustained ever afterward the basic matrix required for the development and continuance of all higher forms of animal life. Perhaps by reason of his reliance on Jakob von Uexküll,³⁰ perhaps for reasons of his own, Krampen considers this situation only synchronically, in terms of its end-development, as follows:³¹

There is one fundamental rule of correspondence between humans and animals on the one hand and plants on the other, this being of critical importance for life: Plants produce the oxygen all humans and animals breathe. In other words, the life of plants corresponds as a counterpoint to the breathing lungs of humans and animals as a point.

But, of course, there is considerably more to be considered here than a merely external correspondence and exploitive dependency. Here again we reach one of those points where the semiotic point of view exceeds the bounds of glottocentrism and in this sense manifests its affinity more with the ontological veins of ancient and medieval thought than with the nominalistic strains of renaissance and modern philosophy. Consider the following text, which is singularly uncharacteristic of the mainstream of modern philosophy as it waxes increasingly glottocentric in contemporary times. (I choose this text in part for its fortuitous extension of the phytosemiotic image of the oak tree cited above from Krampen on the basis of Jakob von Uexküll’s work.) The text is from a turn-of-the-century philosopher, Jules Lachelier:³²

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30. By relying on Kantian notions of fixed formal a-prioris to explain the difference between goal and plan in nature, J. von Uexküll deprived himself of a philosophical framework containing the dynamic notion of objective causality as specificative of physical interactions in nature. This helps to account for the fact that, throughout his life, he remained anachronistically opposed to the idea of evolution, sometimes even justifying this historically idiosyncratic conceptual opposition on the thin semantic grounds of etymology.
31. Krampen 1981: 197.
32. Lachelier 1933: XVIII–XIX. “Il me semble, quand je suis à Fontainebleau, que je sympathise de toutes mes forces avec la vitalité puissante des arbres qui mentourent. Quant à reproduire jusqu’à leur forme, je suis sans doute trop encroûté dans la mienne pour cela; mais, en y réfléchissant bien, il ne me paraît

It seems to me, when I am at Fontainebleau, that I sympathize in all my energies with the powerful vitality of the trees which surround me. I am too encrusted in my own form to be able to reproduce their form; yet, on well considering the matter, it does not seem unreasonable to hold that all forms of being sleep more or less deeply buried in the ground of each being. Under the sharp contours of my human form any careful observer could see the vaguer contours of “animality”, which veils in turn the even more fluid and incomplete form of simple organic life. Now one of the possible determinations of organic life is tree, which engenders in turn the oak tree. So the “being of an oak tree” is somewhere hidden in the foundations of my being, and may even strive sometimes to emerge and appear in its turn *dias in luminis oras* [in the upper world of light]—but humanity, which has gotten ahead of it, prevents it from doing so and blocks its way.

This text strikes us in our cultural milieu as something idiosyncratic or even bizarre. Yet in truth it is no more than a faithful echo of the older traditions of the Western philosophical mainstream. We need only recall the reflections in this area common to Greek and Latin thought, before the unique development of modern philosophy effectively shifted concern away from natural being to the universe of human discourse in such ways as effectively to close the range of philosophy within the conventionalized realms of human culture.

According to this older, broader mainstream, the life of the plant exists within the animal itself precisely as base and part of its proper life. That is to say, there is a common life principle that is the first principle of all planetary life as such. I quote from a typical medieval commentary on Aristotle's original conception³³ of “psychology” as the science of living things:³⁴

pas deraisonnable de supposer que toutes les formes de l'existence dorment plus ou moins profondément ensevelies au fond de chaque être; car sous les traits bien arrêtés de la forme humaine dont je suis revêtu. Un oeil un peu perçant doit reconnaître sans peine le contour plus vague de l'*animalité*, qui voile à son tour la forme encore plus flottante et plus indécise de la simple *organisation*: or l'une des déterminations possibles de l'organisation est l'*arboréité*, qui engendre à son tour la *chénéité*. Donc la *chénéité* est cachée quelque part dans mon fond, et peut être quelquefois tentée d'en sortir et de paraître à son tour *dias in luminis oras*, bien que l'humanité, qui a pris les devants sur elle, le lui défende, et lui barre le chemin.”

33. Aristotle c.330BC.

34. Aquinas c.1266–1272: *Commentary on De Anima*, Liber II, lect. 9, n. 347: “Definit ipsam primam animam, quae dicitur anima vegetabilis; quae quidem in plantis est anima, in animalibus pars animae.... Ad cuius definitionis intellectum, sciendum est, quod inter tres operationes animae vegetabilis, est quidam ordo. Nam prima eius operatio est nutritio, per quam salvatur aliquid ut est. Secunda autem perfectior est augmentum, quo aliquid proficit in maiorem perfectionem, et secundum quantitatem et secundum virtutem. Tertia autem perfectissima et finalis est generatio per quam aliquid iam quasi in seipso perfectum existens, alteri esse et perfectionem tradit. Tunc enim unumquodque maxime perfectum est, ut in *quarto Meteororum* dicitur (8), cum potest facere alterum tale, quale ipsum est. Quia igitur iustum est, ut omnia definiantur et denominentur a fine, finis autem operum animae vegetabilis est generare alterum tale quale

Aristotle defines the primary principle of life, which is called the vegetative psyche or soul; in plants this is the entire soul, while in animals it is only a part of the soul.... To understand his definition, it must be seen that there is a definite order among the three operations of the plant soul. For its first activity is taking food, through which the living thing preserves its existence. The second and more perfect activity is growth, by which the living thing develops both in size and vital energy. But the third, most perfect, and fulfilling activity is reproduction, through which something already as it were existing perfected in its own right, transmits to another being and perfection. For, as Aristotle observes in Book IV of his *Meteorology* (c.335–334BC: Chap. 1, 4–18), anything achieves its greatest perfection when it is able to make another such as it itself is. Since therefore things are appropriately defined and named by their outcome, whereas the fulfillment of the activity of plant life is the generation of another living being, it follows that it will be a proper definition of the first principle of life, that is to say, of the plant soul, if we define it as *what is generative of another like itself on the plan of being alive*.

This ancient way of conceptualizing the nature and essence of life in general, and of plant life in particular, coincides fairly squarely, in contemporary terms, with our understanding of the genetic code. Such a conceptualization places a wholly unexpected back-drop of tradition behind Dr. Sebeok's bold claim that, if indeed the genetic code is a semiotic system (such that genetics and linguistics, as codes, subtend the upper and lower reaches of semiosis), then indeed in the full perspective of Western philosophical tradition "a full understanding of the dynamics of semiosis" would, in the last analysis, "turn out to be no less than the definition of life".

At the same time, as our above remarks have suggested, the full understanding of the dynamics of semiosis also turn out to include yet more extension than the definition of life. For phytosemiosis in turn needs to be seen as an extension and specification at a new level of the more general process and processes of physiosemiosis, upon which plants too depend.

In this perspective it becomes also clear that the proposal of Krampen³⁵

to establish phytosemiotics, i.e., the semiotics of plants, as an area of inquiry into sign processes, parallel and on an equal footing with anthroposemiotics, the study of human communication, and zoösemiotics, the study of sign processes occurring within and between species of animals, the three areas forming together the discipline of biosemiotics

ipsum est, sequitur quod ipsa sit conveniens definitio primae animae, scilicet vegetabilis, *ut sit generativa alterius similis secundum speciem.*"

35. Krampen 1981: 187.

is a reasonable ramification of the "vision of new and startling dimensions" to which Sebeok pointed in the early 1960s.

From the point of view of the analogy between linguistics and genetics, and within the dialectic of concepts set up thereby, the establishment of phytosemiotics alongside anthroposemiotics and zoösemiotics completes a tryptic. Within this analogy, phytosemiotics has already a right to existence, its place marked out in advance. What is surprising, perhaps, is less Krampen's proposal than the fact that twenty years elapsed between Sebeok's statement on the dimensions of semiotics and the concrete advancement of such a proposal. Far from being the aberrant proposal it seemed when viewed from a standpoint of more or less explicit glottocentrism, it appears in an integrally semiotic perspective as an important and daring step in the dialectical maturation of the doctrine of signs.

This is not to say that the notion is without difficulties or that its final status vis-à-vis anthroposemiosis and zoösemiosis is assured. In fact, even in Krampen's original proposal, two quite distinct possibilities for the definition of phytosemiotics are outlined. The first and explicit scheme is for a relatively autonomous area of inquiry, "on an equal footing with anthroposemiotics and zoösemiotics", as Krampen puts it,³⁶ using opposition as "the method by which the specificity of plant semiosis can be shown". By the use of this method, Krampen is able to show, as the ancient philosophers also argued, that³⁷ "many life processes within the animal and human organisms function according to the principle of the vegetative world, i.e., according to the principle of phytosemiotics", although of course "the phytosemiotic level is contained within the zoösemiotic one at a new level of complexity".³⁸

Rich as are the results of this method in Krampen's hands, I am not convinced that they succeed in establishing phytosemiotics on an equal footing. Or, to put it another way, I am not convinced that the communication among plants and between plants and the physical environment and the communication between plants and animals is, on the side of the plants themselves, fully an actual process of semiosis, such as it certainly is on the side of the animals.

My hesitations here are an extension of the distinction, as we have drawn it above, between virtual and actual semiosis. This extension can be couched in the form of a distinction between communication, which is virtually semiotic, and actual signification proper. The two have in common the nature of being thoroughly relational states of affairs—in addition to which all conscious communication, whether self-reflective or not, within or between organisms, is by means of signification. But, although it is

36. *Ibid.*:192.

37. *Ibid.*:203.

38. T. von Uexküll 1982: 5-6.

true that all relational phenomena are communicative, it is not conversely true that all communicative events adequately realize, even when they virtually contain, the triadic character required for an action fully semiotic. All relation involves signification potentially, but this becomes actual only through the intervention of cognition.

With these distinctions in mind, the situation of semiosis in the context of communication phenomena (relations) can be outlined as in Figure 9 (following page). In this scheme, the dynamics of semiosis in the strict and full, or overt, sense are co-extensive with the dynamics of cognitive life rather than with the dynamics of life itself. My original objection³⁹ to Sebeok's proposal that the genetic code is already a semiotic network was based on this consideration.⁴⁰

At the same time, the genetic code is unquestionably a communication network and a communication network whereby the present shapes the future, both in its being and in its virtual knowability. Through the genetic code the limitless possibilities of organic life are opened up, just as through the linguistic code the infinity of cognitive life is rendered possible in anthrosemiosis—which is, after all, “le coeur de l’analogie”, as Sebeok pointed out.⁴¹

³⁹ Deely 1978a.

⁴⁰ The theoretical attempt that I made (1978a, 1982a) to restrict semiosis to the cognitive order brought every thing under the rubric of semiotics inasmuch as all things are in principle knowable: anything can become an object of awareness, and any object of awareness can come to function as a sign. The basis for attempting theoretically to restrict semiosis to the order of actual cognition, thus, was the consideration that only cognition renders anything actually signifying this way or that way here and now.

But any attempt to restrict semiosis to cognition falls short at the level of theory for the reason that nature and culture mutually penetrate one another in the constitution of experience, so that the objects of experience *also* reveal themselves more suited to some significations than to others in any given context of inquiry. The objective sphere reveals itself as neither closed nor closable upon itself absolutely. The subjectivity both of the knower and of things known (with all their respective virtualities that exceed the actual semiosis of any given moment or case and moreover surround and exert an influence upon even the actual semiosis here and now) seeps into and permeates the objectivity of experience. The full semiosis of experience, thus, is never merely actual, but is suffused at every moment with elements and factors passing in and out of varying degrees of actuality and consciousness through the virtualities that remain in their own right semiotic (whether rooted primarily in the psychic or the physical side of subjectivity).

⁴¹ Sebeok 1974a: 108–109: “le fond du problème de l’analogie entre code génétique et code linguistique est en réalité très différent quand on le prend d’un point de vue linguistique. Le langage est un mécanisme très particulier, organisé de manière hiérarchique. Cette organisation hiérarchique est généralement désignée sous le nom de dualité, mais en réalité ce terme prête à confusion car il signifie essentiellement que l’on a un ensemble de sous-systèmes, et que le sous-système de base comporte un répertoire universel de traits binaires. C’est ce que les linguistes appellent des traits distinctifs (distinctive features), traits qui sont en eux-mêmes dépourvus de signification, mais à l’aide desquels on peut fabriquer un nombre infini de phrases, lesquelles forment un autre sous-système. Pour ce qui est de l’ensemble des systèmes de communication des organismes, ceci constitue un phénomène unique, car nulle part ailleurs dans le monde animal on ne trouve trace d’une telle organisation hiérarchique. Le code génétique, si je le comprends bien, fonctionne de manière analogue. On a quatre unités de base qui sont en elles-mêmes dépourvues de signification,

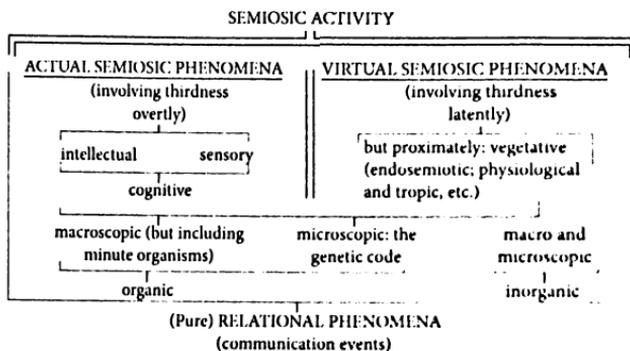


Figure 9 Semiotic Activity and Relational Phenomena

Although there are hierarchical distinctions to be made in the levels of semiosis as well as circular feed-back laces between the levels, the picture that now emerges shows the problem to be mainly one of according proper emphases. First of all, the quasi-presemiotic (the “merely virtually semiotic”) character of plant life, or still more of the processes of formation of star and planetary systems in the first place, needs to be given due weight. Second, what needs to be given due weight is the remarkable ordering whereby semiosis (thanks to the inorganic processes of planetary formation and the organic processes of vegetable life), which is virtually present and operative throughout, first becomes sustained actually in its proper possibilities, then grows both in size and vitality, and finally transforms into itself (at least by tendency and right of domination) all that preceded and once lay outside its actualized sphere. As Henderson remarked:⁴²

The properties of matter and the course of cosmic evolution are now seen to be intimately related to the structure of the living being and its activities; they become, therefore, far more important in biology than has been previously suspected. For the whole evolutionary process, both cosmic and organic, is one, and the biologist may now rightly regard the universe in its very essence as biocentric.

Some recent speculations in physics⁴³ seem to bear out this point.

mais qui se combinent en des unités plus grandes, lesquelles se combinent en unités encore plus grandes qui, finalement, donnent lieu à un nombre infini de suites. C'est là le coeur de l'analogie, mais Jakobson est allé encore plus loin et a trouvé des analogies beaucoup plus fines, et je suis un peu gêné de devoir ajouter qu'il se réfère la explicitement à Monod.”

42. Henderson 1913: 312.

43. For example, Wheeler 1984.

In any event, if it is true that “things are appropriately defined and named by their outcome”, the semiotist is entitled to regard the universe in its very essence as “semiocentric”. The “new and startling vision” of the sixties, which at first seemed too grand, proves, after all, not grand enough.

The post-modern era that semiotics introduces is no longer ontocentric as were classical and Latin times, neither anthropocentric as the renaissance nor glottocentric as the moderns, but *semiocentric*. Hence we can complete and complement the once-famous maxim of Aristotle, “*anima est quoddammodo omnia*” (“the soul in a certain way is all things”), by adding: “in a certain way, all things are semiotic” (“*omnia sunt quoddammodo semiotica*”). That is, in a certain way (*quodammodo*), because of semiosis at work throughout the whole of nature transcendently and virtually, inasmuch as physical nature sustains itself through interactions which also determine the possibilities of what is there to be known on the environmental side or in the physical dimension of objects within experience, as well as ontologically and integrally within experience itself as sustaining the network of objects as such (the *Umwelt*) in the first place.

Not only can anything signify through cognition, and not only through cognition can anything fully signify, but, also phenomena not in themselves actually semiotic are nonetheless entangled in semiotic virtualities. Such is the situation that has to be accounted for. We have to take account not only of the fact that all things become semiotic once an awareness of them, however partial, is acquired, but also of the fact that all things in the process of becoming objectified work as if to have a say in the semioticity of their objectification. They not only respond to the web they are caught in, they also make the web respond to what it has caught.

Semiosis is above all an *assimilative* interactive process, especially as manifested in a form of life, but not only there. Semiosis is the process whereby phenomena originating anywhere in the universe signify virtually in their present being also their past and their future and begin the further process of realizing these virtualities especially when life intervenes and, within life, when cognition supervenes. The process does not begin with the cognition, it merely enters a further phase, a new magnitude of thirdness.

Let me comment, finally, on the second of the two possibilities for the definition of phytosemiotics I see outlined in Krampen’s work, namely, the study of plants from the point of view of their symbiosis with animals. From this point of view, phytosemiotics would be defined as the study of the peculiar dependencies of animal upon plant life and of the benefits to human life in particular that could be derived from such a study. The method of opposition used by Krampen would necessarily form a substantial part and lay the foundations for this study. “This semiotic analysis”, Krampen remarks,⁴⁴ “may well form the positive scientific basis lacking so far in the conservationist activities that

44. Krampen 1981: 192.

have, until now, largely been based on negation and ideology". And yet, viewed in this way, phytosemiotics would be, to borrow an older terminology, a study subalternate to rather than on an equal footing with zoösemiotics and anthroposemiotics.

Since this definition is in my opinion unquestionably valid in establishing phytosemiotics as an important and new semiotic perspective or field of inquiry and since, furthermore, it includes the methods and results of the alternative definition, I might summarize by saying that from Krampen's work I am convinced of phytosemiotics, but not of its equal footing with zoösemiotics or still less with anthroposemiotics. There seems to me a basic sense in which semiosis is hierarchical, a series of irreducible levels or zones that are integrally actualized only in the final layer that folds back, as it were, and assimilates the previous levels into itself so as to give them their final being as semiotic.⁴⁵In either event, from the point of view of an anthroposemiosis that has become transparent to itself and grounded in principle, it remains that "the vegetative world is nevertheless structured according to a base semiotics which cuts across all living beings, plants, animals, and humans alike".⁴⁶

45. An analogous idea is expressed in what Thure von Uexküll (1982: 7) calls "the specific anthroposemiotic process of envelopment. Only man can add to what he sees, hears, feels, and smells something that he knows. With this knowledge, I do not mean just memories of former experience which one can find also with animals and even with plants—but, as Piaget shows impressively, socially-established and socially-controlled ideas about an objective world, its natural objects and proceedings. This objective world is a construct of our imagination. We cannot see it, nor hear it, nor feel or taste it. It belongs to a realm which passes all sensoric conception. But we project it into our sensoric conceptions, and into that which we see, hear, feel, or taste.

"We have learned and practiced this complicated intellectual construction of an objective world with objects and proceedings as the signified contents of our anthroposemiotic signs since childhood within the social environment in which we grow up. It is therefore not astonishing that we share this result—just this objective world—with all people who have learned and practiced the same intellectual process of construction for anthroposemiotic sign processes. This does not mean, however, that we share our objective world with all men, and even less that we share it with all living beings." We have seen this in Chapter 5.

"The objective worlds in which Indian clans in the tropical forests of the Amazon or Australian aborigines live differ considerably from the objective world of Americans or Europeans of the industrial age."

The point is that "the human world is an observer's world. But we must choose and we can choose between a world of naive or of participant observation; this choice will determine our understanding of animals, plants, and human beings".

This choice will also determine our understanding finally of the physical universe conceived environmentally in general. For it is always performed from within experience that the totality of the universe forms in our conception, including our notion of "thing": it is not a question of a naive or misleading belief "that neutral objects exist independently of signs and sign systems", but of what the signs indicate about the objects they systematically reveal, to wit, whether or not they exist in subjective as well as objective ways, or objectively only, and so forth.

46. Krampen 1981: 203.

With the notion of phytosemiotics, then, Krampen has outlined a new area important even to the future of semiotic development:⁴⁷

Despite the impression of progress raised by the constant introduction of new and sophisticated tools between human effectors or receptors and the human Umwelt, the human organism cannot escape the basic vegetative rules of endosemiotics and remains locked together with plants by a mutual rule of correspondence: If men cease to care for plants, i.e., cease to understand their meaning factors and the meaning rules at the basis of their formation rules, they will asphyxiate themselves. As Thure von Uexküll has put it: "Man is led, from his extravagant position as the observer positioned outside nature and as its unscrupulous exploiter, back into nature, in which he must arrange himself for better or worse." Phytosemiotics can help to improve this arrangement.

At the same time, phytosemiotics marks not the final step but only a penultimate one in reaching the outlines of the full extent possible for the doctrine of signs.

We have now seen that the Peircean idea of extending semiotic understanding beyond the sphere of cognitive phenomena to the whole of nature itself, as a network virtually semiotic in character, had already been grounded in Poinso's original treatise on semiotic foundations. We have likewise seen that the development of the doctrine of signs, drawing on contemporary experience and standing as well on the shoulders of the giants who contributed to the establishment of its foundations, reveals that, as Peirce alleged, the universe is indeed perfused and virtually made up entirely of signs, among which "man" is one.

To sum up the relation between the signs of the universe and the human being as sign, I propose this formula: "man" is an interpretant whose ideas are signs, having the universe in its totality as their object.

47. Krampen 1981: 208.

ADDENDUM TO CHAPTER 6

HOW PHYSIOSEMIOSIS MOVED THE PHYSICAL UNIVERSE TOWARD LIFE

When Peirce observed, in 1868 (CP 5.316) that “the existence of thought now depends on what is to be hereafter; so that it has only a potential existence, dependent on the future thought of the community”, he was thinking of the species-specifically human semiosis of human discourse. But the observation applies to the semiosis itself, not only to what is species-specifically human about it. For it is true of everything that exists now that its significance depends upon what is to be hereafter. Oil lay in the ground for millenia; but once the internal combustion engine came into existence that “meaningless” oil acquired an importance—a “significance”—undreamed of over those earlier millenia.

The whole difference between the dyadic interactions of Secondness and the triadic relations constituting Thirdness lies in the fact that dyadicity concerns only the immediately existing interactants, whereas semiosis concerns the future—what will or could be—along with what is. What exists now may have no meaning at all, but under changed future conditions will have a profound importance unforeseeable apart from those conditions. When Darwin formulated his theory of natural selection, he also conceived of the role of chance entirely in the perspective of the consequences, so to speak, of brute interactions, and it is in this fashion that those who fancy themselves the defenders of his conceptions, such as Dawkins (1976, 2006) or Dennett (1995), continue to envision the process by which the universe has advanced from nonliving to living, and from living through the plethora of plants and animals to ourselves as semiotic animals.

But once the reality of semiosis has come explicitly to be taken account of by human understanding, all of this—the landscape of developmental processes in nature—changes rather radically. For “chance” (“tyche”) is no longer a matter of the byproducts of pure secondness, or of what enters into Secondness “from below”, as it were. Chance itself

becomes assimilated in its outcomes to the various processes of semiosis whereby the meaning of what exists now is influenced by what the “now” has made possible that was not possible in earlier “nows”. That influence of the future which determines the present relevance of whatever is “past”, according to an ever-changing boundary between “real” and “unreal” (exactly as in human politics, for instance, but much less constant and clear) is the essence of semiosis, the distinguishing feature which separates Thirdness as an action of signs from Firstness as “pure possibility” and Secondness as possibility as determined by physical interactions here and now. Those interactions “here and now” set up conditions whose fulfillment depends not merely on what is now, but finally on what is yet to come: and when that future arrangement arrives through a later Secondness, what was earlier merely *possible* becomes now, under the new conditions, fully *actual*. It is as if one set of dyadic interactions brings about a state of affairs which “lies in wait” to flare into life as new circumstances, not yet existent or in any way, perhaps, envisaged, make possible the realization of a given significance. The present state of affairs as a prospective semiosis requires an interpretant: that interpretant is not a relation but some thing or aspect thereof, just as a sign-vehicle is not a relation but some thing or aspect thereof. But given the co-existence of sign-vehicle and interpretant, the significate respecting which the sign-vehicle stands in for the interpretant will also come to be, prospectively and virtually or actually, as the circumstances allow.

Thus the weakness of traditional Darwinism in relying on chance lies not in seeing the present as product of past interactions, but rather in not seeing that the present product of past interactions has a significance which is *further determined* by what is yet to be, what is yet to come.⁴⁸ It is not the influence of the past, however, that determines the significance of the present: it is the future that determines the significance of the present. What is now depends *both* on what has been (the original emphasis of Darwinism) and on what is to be hereafter: the former from the standpoint of physical interactions as a manifestation of Brute Secondness; the latter from the standpoint of the manner in which intersubjective relations of Secondness provide the support for and are incorporated into *further* relations of Thirdness which, through the present, reshape the importance or “meaning” of the past according to new possibilities existent *now* but not *then*. Thus an orientation to the future is always at issue wherever an action of signs, a semiosis, supervenes upon and inevitably elevates the processes of secondness, by giving them a dimension of directionality toward more complex organizations which result inevitably, when circumstances permit here or there, in the emergence of semiotic animals.

48. It is worth noting in this regard that Aquinas had already pointed out the reasons why, in the absence of an unchanging environment for earthly generations (such as the celestial spheres were commonly thought to provide in Aquinas’ day), those generations would *inevitably and necessarily* tend in the direction of bringing about semiotic animals: see Aquinas 1259/65: *Summa Contra Gentiles*, liber 3, caput 22; general discussion in Deely 1969.

So the universe moves from an inorganic multiplicity in which life is not even possible to an inorganic multiplicity *capable* of sustaining life, if only life existed; to an inorganic multiplicity where living organisms make their appearance and are sustained, but which, in being sustained, also bring about further conditions *which would not otherwise have been brought about*, conditions which require yet further changes in the conditions of life rendering possible yet further lifeforms, yes, but ones which come into being often enough at the expense of the original forms which made the later forms in the first place possible.

And so we see the universe develop from relatively simple and inorganic forms to relatively complex organic forms, "higher" by any measure, but dependent upon circumstances always changing not only as a consequence of physical interactions but also *and especially* by the significance the effects of such interactions acquire as Thirdness intervenes through prospective and virtual sign-vehicles being made into actual sign-vehicles as new physical realities emerge not simply as "chance" occurrences but as interpretants respecting other physical realities which now signify outcomes yet to be, yet outcomes which reshape the relevance of past to present according to their own prospective possibilities.

Just as a mental representation gives rise to a significante to or for the one whose concept it is, so some characteristic or quality of a physical individual can acquire a relation of thirdness respecting some other physical individual as interpretant thereof.⁴⁹ The difference is that a mental representation cannot exist *except* as giving rise to a relation to a signified, regardless of any further status of the signified than the objective one of *being signified*, whereas a physical quality cannot provenate such a relation *except when* the signified exists physically, and this whether or not, as significante (as "being signified"), it also exists in some measure objectively (which, absent some apprehension, it cannot actually even though it does so exist virtually prior to some apprehension).

Whence the proper effect of semiosis, Thirdness, appears in the universe prior to life, but only intermittently, as it were, "flaring up" momentarily here and there; and the inorganic universe passes, through these flare-ups, from one state to another—for example, from the state wherein life neither exists nor could exist to a state wherein life could exist but does not exist; to a state wherein life both could exist and does exist, but not human life; to a state where human life could exist (has become virtual, we might say) but does not exist; to a state where human life is not only imminently possible but actual; and so on. Like a match or series of matches struck to light a fire which goes out before the fire catches on, so physiosemiosis proceeds through a series of momentary Thirdnesses which relapse into Secondness, yet which do so by changing the conditions

49. This is a point as subtle as it is important. Cf. Peirce's treatment in his *Tractatus de Signis* 1632: Book I, Question 3,123/13–25, 126/23–127/6, 128/9–19.

of Firstness as they actually prevail, making possible in turn new conditions which the next flaring of Thirdness will turn to future advantage, in a long series of changes which will move the universe ever closer to life and to human life.

From this point of view, physiosemosis presents itself as the most fundamental but in itself occasional and intermittent form of the action by which signs perfuse the physical universe. It is the match struck to light a fire, but which itself goes out more than once before the lighting, so to say, succeeds in establishing semiosis as a *permanent* process actually occurring, as seems, according to Sebeok's well-known arguments, to take place once life has appeared. By the time semiosis has brought about the successive levels required to introduce and sustain anthroposemosis and "turns back on itself" in the metasemiosis we call *semiotics*, the whole of reality reveals itself as perfused with signs both in order to have become as it is and to be known for what it is.

When does semiosis pass from an intermittent occurrence in a realm dominated by Secondness to become a veritable conflagration, consuming all in its spreading flames? Well, the highest point no doubt occurs when semiosis becomes capable of knowing itself, which presupposes the advent of semiotic animals, as is discussed in the present book (Chapter 11) and in other works (perhaps most notably so far in Deely, Petrilli, and Ponzio 2005). There is still Secondness, of course, in the human world as throughout the universe. And the same holds true for Firstness, no more separable from the physical interactions of things than is the "primary matter" of Aristotle separable from the forms of the substances capable of becoming other than what they are at any given time.⁵⁰

But the flames of semiosis no doubt begin to "go global" with the advent of life, flames which become more intense and dominant in each succeeding wave of evolution transformative of the biosphere, from generically living to the life of animals, and thence by a further evolution to the life of specifically semiotic animals—when the question of *responsibility* or *semioethics* arises, with demands that cannot be evaded if the species is to survive.

50. See Aquinas 1256/59: *De veritate* q. 5. art. 3. ad 3; 1266: *Summa theologiae* 1, q. 7. art. 2. ad 3; 1268/69: *In octo libros physicorum Aristotelis expositio*, liber 1, lectio 15; 1268/72: *In duodecim libros metaphysicorum Aristotelis expositio*, liber 8, lect. 1. These texts reveal the superfluousness of Peirce's view of 1898 (CP 6.201) "that whatever is First is *ipso facto* sentient" (which would explain his desperate recourse to panpsychism in order to assert Thirdness in nature at large: discussion in Deely 1989a).

RETROSPECT: HISTORY AND THEORY IN SEMIOTICS

1. Theory of Semiotics

The object or subject matter of semiotic inquiry is not just signs but the action of signs or *semiosis*. This action, we now see, occurs at a number of levels that can be distinguished or identified as specific spheres or zones of sign activity.

Semiotics, therefore, contrasts with *semiosis* as knowledge contrasts with that which is known. Semiotics is knowledge about *semiosis*; it is the theoretical accounting for signs and what they do.

This is actually an important distinction, because, if we are right in what we have said about the extent of *semiosis*, the history of *semiosis* and the history of the universe, at least insofar as the universe inclines toward a species of our linguistic type as part of itself, are the same thing. But the history of *semiotics*, by contrast, is quite another matter and, while complicated, is considerably more manageable. It will be the story of the attempts, more or less fitful, to take account of that which underlies *semiosis* and makes it possible, namely, the sign. What is a sign such that it makes possible *semiosis*?

This is the foundational question of semiotic inquiry, the basic question, to which we have essayed an answer in Chapter 4, and for which the preceding and following chapters may be regarded as supporting amplifications. Beyond the scope of this book, however, over and above this question, there is the investigation of the role of signs in particular spheres, such as architecture, the fine arts, literature, the codes of dress, legal codes, heraldry, prognostics or symptomatology in medicine, linguistics, historiography, geography, geology, ecosystems, astronomy, chemistry, physics, etc.

But these specialized inquiries into signs of this or that type, the actions of signs in creating and molding this or that objective sphere of experience, oddly enough, have heretofore been normally pursued apart from any thematic consciousness of what a sign is in its distinctive objectivity, of what is distinctive about the objectivity of the sign.

Semiotics thus is the attempt to account theoretically for what is distinctive about the sign, both in its being and in the temporally coterminous action that follows upon that being, according to the ancient saying that "as a being is, so does it act" (*agere sequitur esse*). To the extent that such a reflexive attempt comes to permeate specialized investigations about signs, the reflection imparts to those investigations—no matter how well established and "traditional"—its own thematic unity and assimilates them to the field of investigations properly called "semiotic". Thus, "the field of investigations properly called semiotic" includes *by right* all the traditional disciplines in virtue of their dependency in what they are as typically distinct structures of signification upon a network of sign relations constituting them; but the field includes *in fact* those disciplines only at the moment when and to the extent that, besides being seen to be structures of signification, they are looked at and analyzed thematically in terms of this virtually semiotic constitution. The field of investigations virtually semiotic is coextensive with the field of all investigations, but the actual field of semiotic investigations properly so-called is much smaller at any given moment. It exists as a demand of the future on present thought, in the form, like knowledge itself, of a task being completed rather than of a task done. It finds itself at every moment, to borrow a description from Peirce,¹ "dependent on the future thought of the community".

In this way, the history and the theory of semiotics intertwine and grow together. But there is also a certain reflective moment, or series of moments, more or less critical, anterior to which *semiotics* properly speaking, in its contrast with *semiosis*, does not exist or exists in a very febrile condition.

The history of semiotics in this manner is always twofold. It is first of all a gathering together and identification of those moments of self-consciousness about the sign when signs are not only used but recognized in their contrast with what they are used for. That is to say, semiotics must first, in order to achieve its history, identify and hierarchize those moments where the sign comes to be *recognized* for the role it plays in its own right and not just *deployed* quasi-invisibly in dealings with objects.

Then, retrenching the thematic consciousness thus attained, semiotics as a moment of consciousness expands outward over the whole realm of knowledge and belief to elicit from within each of the disciplines objectively constituted an actual awareness, more or less reluctant, of the semioses and semiotic processes virtually present within them by their very nature as finite knowledge.

1. Peirce 1868: 5.316.

In this way, the traditionally established disciplines become themselves transformed semiotically, by being brought to a higher level of self-consciousness and, at the same time, a lower level of isolation within the community of inquirers. This is what is meant by the inherent interdisciplinarity of semiotics, and how semiotics tends to function as an antidote for overspecialization, by imposing an objective awareness of the common processes of signification on which the most specialized achievements of knowledge depend.

This is the expansion of semiotic consciousness along, so to say, the axis of synchronicity.

But the expansion of semiotic consciousness also transpires, and by the same impetus, diachronically, so to say, back across time, over the previous epochs of civilization, art, science, and philosophy, for example, or literature and theology, in order to rethink them and reconsider their products precisely from a semiotic point of view. In this way, semiotics brings about a rewriting of previous thought and consequently of history.

We see, then, that, synchronically and diachronically, the theory of semiotics and the history of semiotics are of a piece, mutually self-constituting. Unlike a natural history, say, of the continents of earth or of the Pterodactyl among the dinosaurs, the object of semiotic history is not actually given until and unless the theory that makes it visible—that is, the consciousness of the sign in its distinctive being—has already been achieved.

The history of semiotics is first of all an achievement of semiotic consciousness and then the working out of the implications of that consciousness, so far as it is able to sustain itself systematically, in every sphere of knowledge and experience. In this way, it is a history that extends also into the future, and will never be completed while thought itself continues to grow.

"Semiotic consciousness" is nothing more nor less than the explicit awareness of the role of the sign as that role is played in a given respect. Since, however, it turns out that the whole of experience, from its origins in sense to its highest achievements of understanding, is constituted by signs, it follows that the history of semiotics will be first of all a tracing of the lines which lead to that moment when this total or comprehensive role of the sign in the constituting of experience and knowledge came to be realized. After that, the history of semiotics will be the working out of the implications of this realization both synchronically and diachronically. But "diachrony", in this case, is not just a matter of retrospect, or of a sequence of discrete synchronic sections arranged as prior and posterior. The diachrony of semiotic consciousness is the formation of future thought as well as the transmission and comparison of past thought. It involves an awareness of demands the future makes on present thinking in order for present thought to be what it is as containing also what no longer is or might never have been in relation to what could be. In a word, the axes of diachrony and synchrony in semiotic consciousness mark the

labile intersection where the critical control of objectivity—"criticism" in the broadest sense—is exercised through the subjectivity of the individual linguistic animal.

Thus, when we speak of the "history" of semiotics, we are obliged to have in mind the working out and rendering publicly accessible, from within the myriad subjectivities of the knowers capable of raising semiosis to the semiotic level, of the implications of the realization of the sign's comprehensive role in the constituting and development of experience diachronically in both directions. It is for this reason that the future of thought, as well as its past, will be different as a result of the achievement of a semiotic consciousness, different, too, in unpredictable ways (because of the factor of chance both in itself and as subjectively diffracted in social life).

In a word, the theory of semiotics in the basic sense will be the explanation of how the whole of knowledge and experience depends on signs, or is a product of semiosis; the history of semiotics in the basic sense will be the tracing of the lines that made such an explanation possible and necessary, even though this history in another sense remains open by virtue of thought in the present to an indefinite future as well.

2. History behind Semiotics²

Nonetheless, however incomplete it must be prospectively considered, on its retrospective side such a history cannot remain indefinite. It will consist in answering the question: Where was a consciousness of the role of the sign in the totality of human experience thematically and systematically articulated?

Secondarily, such a history will consist in the record of the workings out of the implications of such a consciousness. It will be enough, in keeping with the purpose of the present work, to restrict ourselves to a preliminary answer in outline to the first question: Where in fact was semiotic consciousness first achieved in its integrity?

The answer to that question, simply put, is that semiotic consciousness found its original thematic statement and systematic formulation in the Latin world as it developed indigenously (after the collapse of Rome, which remained dominated in its speculative consciousness by the Greek philosophies and language) between Augustine thematically (c.397AD) and Poinot systematically (1632). Precisely this development received its name unwittingly from an Englishman, John Locke, in 1690, who suggested in the form of a hypothetical alternative to the perspective in which his own labors had mainly

2. In all the earlier editions of this book, this subsection was titled "History of Semiotics". However, in light of the observation made by Susan Petrilli in her 2008 Sebeok Fellow Address, pointing out that "though there is of course a long history behind the semiotics of today, still there is a sense in which semiotics is, as a widespread intellectual movement, a phenomenon more 'of our time' than it is of any time past", I have added for this edition Chapter 14 on the 20th–21st century founding and here change "of" to "behind".

developed a perspective whose development would destroy the speculative substance of those earlier labors, along with the whole subsequent modern development in continuity with them. Finally, in nominal continuity with Locke and speculative continuity with the largely unknown Latin forebears, the range and complexity in detail of the issues that need to be clarified in the perspective of semiotic was illustrated relentlessly in the writings of Charles Sanders Peirce, from his discovery of the semiotic categories, subsuming the concerns of realism and idealism through their common dependency on experience, in 1867, to his death in 1914.

Having tried, for several chapters now, to examine directly the subject matter thus uncovered, let us next try—as befits the self-consciousness the sign imposes through its inescapable lesson of the historicity of thought—to look also historically at what has been examined.

2.1 The Ancient World and Augustine

Augustine seems to have been the first thinker to have enunciated the idea of *signum* as the universal instrument or means whereby communication of whatever sort and at whatever level is effected. This is a surprising fact, to which too little attention has so far been paid. There is nothing in the world either of ancient Greek philosophy or of the Roman era dominated by this philosophy that corresponds to the notion of “sign” as we have today come to take it for granted, as providing through its distinctive type of action (*semiosis*) the unified subject matter or object of semiotic inquiry.

The “seme-” root of our term semiotics and its many congeners, of course, is definitively Greek in extraction. But, in the Greek writings extant for us today, the dominant feature in this regard is the split, verging on dichotomic, between *Semeion*/Nature, on the one hand, and *Symbolon*/Culture, on the other hand. This is true of Plato in the *Cratylus* (c.385BC), of Aristotle throughout his works,³ whereby Boethius (esp. inter 511–513AD) unwittingly increased the impetus of Augustine’s suggestions for a unified *doctrina signorum*), and of Greek medicine, which Sebeok⁴ regards (after “linguistic affinities” and “the profoundest strata of human wisdom” conventionally fossilized as philosophical analysis) as “the third, admittedly uneven leg upon which semiotics rests”. For, in medicine, it is definitely the *semeion/nature* side that dominates prognostics,⁵ despite the “sop to Cerberus” all its own that medicine even today regularly

3. Including notably the woefully mistranslated *Perihermenias*, c.330BC: 16–20a. Cf. Eco et al. 1986: 66–68; Deely 2001: 420, on Aristotle’s own terminology in this passage so seminal historically for semiotic consciousness.

4. Sebeok 1985: 181.

5. See Sebeok 1984c.

proffers in the placebo—but without by any means being the whole of the story (as is best seen today through the work of Baer⁶).

Apart from these great icons of ancient Greece, there are also the Stoics, who, in their debates with the Epicureans, unquestionably developed at greatest length the theory of signs in the ancient world but who unfortunately have survived only in fragments conveyed principally by their enemies, Sextus Empiricus (c.200) in particular. General accounts of the Stoic sign theory, more or less comprehensive under the circumstances, can be found in Savan 1986 and 1986a, Eco 1980, and Verbeke 1978. Like the apple of Tantalus, the Stoic writings are there to be enjoyed, if only they could be reached—which makes their allure all the greater. Perhaps this is why a leading expert today on Stoic logic (Mates) routinely imposes upon his exposition of supposedly Stoic conceptions terminology drawn from the framework of symbolic logic after Russell and the early Wittgenstein, while the most fascinating author of abductions on Stoic semiotics (Eco) has turned lately to novels. Clarke's "History of Semiotic"⁷ provides an excellent summary here where the evidence is scanty, but after Augustine becomes a phantasmagoric montage constructed of secondary sources standard in traditional philosophy, but based entirely on presemiotic research interests.

Augustine's role against the ancient Greek and Roman background has been nicely captured in a recent descriptive summary jointly essayed by Eco, Lambertini, and Tabarroni:⁸

It was Augustine who first proposed a "general semiotics"—that is, a general "science" or "doctrine" of signs, where signs become the genus of which words (*onomata*) and natural symptoms (*semeia*) are alike equally species.

Medieval semiotics knows at this point two lines of thinking as possibly unified, but without having achieved their actual unification.... Out of the tension of this opposition—under the provocation, as it were, of Augustine—is born much of the distinctively Latin development of semiotic consciousness.

Echoes of the tension persist to this day, as in Husserl's quintessentially modern and at the same time contemporary attempt to deny the possible unity of a semiotic consciousness,⁹ or more generally throughout the academic world, as evidenced in Eco¹⁰ and in the ongoing "nature/nurture" controversy in psychology and anthropology.

6. See esp. Baer 1982, 1988.

7. Clarke 1987: 12–42.

8. Eco, Lambertini, and Tabarroni 1986: 65–66.

9. Cf. Kruse 1986.

10. Eco 1982.

2.2 The Latin World

If we measure the development of semiotic consciousness in terms of the resolution of this tension in favor of the possible unity Augustine originally glimpsed, then the main lines of this development occur after William of Ockham (i.1317–1328), paradoxically, in the resistance of the logicians, first at Paris and later at Coimbra and Alcalá, to the acceptance of Augustine's proffered definition of the sign. Although general far beyond notions found in the ancient world, nonetheless, as in the ancient world, Augustine's definition envisioned for every sign a necessary linkage of a sensible element or vehicle with a possibly immaterial—that is, as such imperceptible—content signified.

The objection of the logicians concerned precisely what John Locke would shortly (1690) see as the first task confronting the would-be semiotician, namely, the bringing of outward signs such as words and gestures and the interior means of knowing such as images and ideas under the common perspective afforded by the notion of sign.

The origins of this rebellion against the age-old linkage of signs with the sense-perceptible are as yet obscure but seem definitely linked to the influence of Ockham at Paris and his introduction of the notion of the concept as a "signum naturale". Clearly not as early as Petrus d'Ailly (c.1372) was the further designation of the interior means of knowing as "signa formalia", contrasting with the outward "signa instrumentalia" whereby the known or felt inwardly is shared publicly. Williams¹¹ made the following summary of the historical situation in this regard:

A major strand of semiotic reflection and controversy, beginning from at least the fourteenth century and developing especially in the Iberian university world of the sixteenth and seventeenth centuries, but involving also a wide geographic area...turned precisely on this question of whether the sign as such involves a *per se* sensible half. The increasingly consistent answer was made in the negative.

But what is of principal interest here is that, as it turns out, this point of historical controversy is the central point theoretically for the accomplishment of the main task of semiotic as Locke proposed it, to wit, the bringing of ideas as well as words into the perspective of a doctrine of signs.

2.3 The Iberian Connection

The transition figure in establishing an Iberian connection for this revolutionary underground of high medieval semiotics was Dominicus Soto. His early studies at Paris led him to introduce into the Iberian milieu (Soto 1529, 1554) an *ad hoc* series of

11. Williams 1985a: xxxiii.

distinctions effectively conveying the objection to the linkage of signs as such (that is, in their essential being and consequent active function in experience) to the sensible vehicle as sign. This had the effect of forcing the issues of the dependency of objectivity throughout on sign functions, and therefore of a sign function that is presupposed to the level of what can be observed and experienced directly as an object. I give first Williams' summary of the central issues and then resume briefly the historical lines of reaction to them:¹²

What actually is common to *all* treatments of the sign, from ancient times to the present, [is,] namely, the seeing of the sign as a "mask of Janus", bi-facial, or "relative to the cognitive powers of some organism, on the one hand, and to the content signified on the other". If it is therefore this *relativity* that constitutes the being proper to signs, then why...add the further condition that this relativity has to be grounded in an object of sense as such?

It is precisely the inclusion as essential of this further condition which is not essential... which has inevitably confused the discussion of the nature or being proper to signs—"all signs insofar as they are signs". The crux of the problem concerns the "difference between a sign functioning as such *from within* the cognitive powers of an organism, and a sign functioning as such by impacting on those powers *from without*". This difference [is] crucial to the functioning of signs... insofar as the ground of observability in the perceiver, or that which makes him or her be a perceiver, is not as such itself susceptible of observation.

It follows... that the taking into account of this distinction gives rise to "the true ground question" for a doctrine of signs: "In what does the relativity essential to signifying properly consist?" This question...has never been resolved satisfactorily *within* specifically realist or idealist paradigms of thought.... The breakthrough resolution of John Poinset in his *Treatise on Signs* (1632a) was itself anomalous in terms of previous traditions as well as in terms of what it anticipated. In contrast, pre-semiotic realist or idealist paradigms of thought have failed, respectively, either to appreciate that perception itself structures its object as relative, or to appreciate that ideas are signs *before becoming objects* of our awareness, and, as signs, can give access to "the nature of things" (to nature, that is) only as revealed *relatively* through signs.

Two major reactions to these issues appeared at Coimbra. One favored, in effect, restoring the ancient perspective (Fonseca 1564). The other promoted rather the prospective unity heralded by Augustine (the Conimbricenses 1607), but without being able to show finally *how* the being of signs provides a purchase for such an overall perspective.

12. Williams 1985a: xxxi-xxxii.

The decisive development in this regard was the privileged achievement of John Poinsoot, a student with the Conimbricenses, and the successor, after a century, to Soto's own teaching position at the University of Alcalá de Henares. With a single stroke of genius resolving the controversies, since Boethius, over the interpretation of relative being in the categorial scheme of Aristotle, Poinsoot¹³ was able to provide semiotics with a unified object conveying the action of signs both in nature virtually and in experience actually, as at work at all three of the analytically distinguishable levels of conscious life (sensation, perception, intellection). By this same stroke he was also able to reconcile in the univocity of the object signified the profound difference between what is and what is not either present in experience here and now or present in physical nature at all.¹⁴

Poinsoot was able to reduce to systematic unity Soto's *ad hoc* series of distinctions, as he put it in his first announcement of the work of his *Treatise*,¹⁵ and thereby to complete the gestation in Latin philosophy of the first foundational treatise establishing the fundamental character of, and the ultimate simplicity of the standpoint determining, the issues that govern the unity and scope of the doctrine of signs. Unfortunately, because he so skillfully embedded his *Tractatus de Signis* within a massive and traditional Aristotelian *cursum philosophiae naturalis*, he unwittingly ensured its slippage into oblivion in the wake of Descartes' modern revolution. Three hundred and six years would pass between the original publication of Poinsoot's *Treatise on Signs* and the first frail appearance of some of its leading ideas in late modern culture.¹⁶

2.4 The Place of John Locke

Coincidentally, Poinsoot achieved his Herculean labor of the centuries in the birth-year of the man whose privilege it would be, while knowing nothing of Poinsoot's work, to give the perspective so achieved what was to become its proper name, "semiotics"—knowledge acquired by studying the action of signs, "semiosis".

Thus, 1632 was both the year John Locke was born and the year that Poinsoot's *Treatise on Signs* was published. The name-to-be for what both Locke and Poinsoot and, later Peirce also, called "the doctrine of signs"—an expression of pregnant import in its own right, as Sebeok was first to notice¹⁷—was proposed publicly fifty-eight years later, in 1690 (the publication was released actually in December of 1689), in the five closing paragraphs (little more than the very last page) of Locke's *Essay concerning Humane Understanding*. There, Locke proposed that, along with science as concerned

13. Poinsoot 1632a 117/28–118/18, esp. 118/14–18, annotated in Deely 1985: 472–479.

14. Poinsoot 1632a: Book III.

15. Poinsoot, "Lectori", 1631; p. 5 of the Deely 1985 edition of Poinsoot 1632a.

16. Maritain 1937–1938, discussed in Deely 1986d.

17. Sebeok 1976a: ix, elaborated in Deely 1978a, 1982b, 1986b *inter alia*.

with attainment of speculative truth (or “knowledge of things, as they are in their own proper beings”), and science as concerned with attainment of practical truth (or the “right applying our own powers and actions, for the attainment of things good and useful”), there is need for a science concerned with “*signs* the mind makes use of” both in acquiring knowledge of things and in developing control over things. For this new, “third science” Locke proposed the name “σημιωτικ” or, alternatively, “the doctrine of signs”.

Later scholars “correct” Locke’s spelling of this term by inserting an eta after the mu, thus: ημειωτικ, which transliterates “semeiotics” rather than “semiotics”. While this “correction” is to a limited extent justified by Greek orthography, the reason for considering the “correction” misguided with respect to Locke’s proposal is twofold.

Locke was a man of medicine. In his library were two editions of Scapula’s 1579 abridgement of Henricus Stephanus’ *Thesaurus Graecae Linguae*, which listed σημειωτικ as the name for “diagnostics”, the branch of medicine concerned with interpreting symptoms of disease. In the complete absence of any and all evidence to the contrary, the circumstances of Locke’s work oblige us to suspect most strongly that Locke *deliberately* formed his “misspelled” variant of the Greek term to distinguish his proposal for a *general* doctrine of signs from *specifically medical* analysis of signs in diagnosis of illnesses. Locke devoted utmost care in preparing four subsequent editions of his *Essay*, up to his death in 1704. In each of these full editions his original spelling of σημιωτικ was retained in his proposal for “the doctrine of signs”. Thus we can only think that because σημειωτικ was already a *signum ex consuetudine* (a customary sign) by Locke’s time, his proposed σημιωτικ was quite deliberately and contrastively a *signum ad placitum*, a neologism stipulated for the express purpose of naming a new science, a discipline which did not yet exist yet whose right to existence, in contrast to all existing disciplines, needed to be recognized and named accordingly.

The principal instigation that Locke himself wrote in reaction against, but along very different lines from what he would end by proposing for “semiotic”, was the Cartesian attempt¹⁸ to claim for rational thought a complete separation from any dependency on sensory experience.

The irony of the situation in this regard was that Locke’s principal objections to Descartes were not at all furthered by the speculative course he set at the beginning and pursued through the body of his monumental *Essay concerning Humane Understanding* of 1690. Instead, he furthered the Cartesian revolution in spite of himself; deflected the brilliant suspicions of Berkeley (1732); fathered the cynical skepticism of Hume (1748);¹⁹

18. Descartes 1637, 1641.

19. Miller (1979) makes a strong argument in fact that Hume’s skepticism was rooted in a kind of radically vitiated semiotic wherein the content of experience was reduced to the skein of its structure. Hume, “for

and laid the seeds of overthrow of his own work in concluding it with the suggestion that what is really needed is a complete reconsideration of “*Ideas and Words, as the great Instruments of Knowledge*” in the perspective that a doctrine of signs would make possible. The consideration of the means of knowing and communicating within the perspective of signifying, he thus presciently suggested, “would afford us another sort of Logick and Critick, than what we have hitherto been acquainted with”. It was for this possible development that he proposed the name *semiotics*.

The antinomy between the actual point of view adopted at the beginning for the *Essay* as a whole and the possible point of view proposed at its conclusion (Deely 1986a) is, for semiotic historiography, an object worthy of consideration in its own right.

It remains that to Locke goes the privilege and power of the naming. If today we call the doctrine of signs “semiotics” and not “semiology”, it is to the brief concluding chapter XX in the original edition of Locke’s *Essay* that we must look for the reason—there, and to the influence this chapter exercised on the young American thinker, Charles Sanders Peirce, who read the *Essay* but made of its conclusion a substantial part of his philosophy and lifework from 1867 onward.

2.5 Ferdinand de Saussure, Charles S. Peirce, and John Poinset

Contemporaneously with Peirce, and independently both of him and of Locke, Ferdinand de Saussure was also suggesting that the doctrine of signs was a development whose time had come. For this development he proposed a name:²⁰

We shall call it *semiology* (from the Greek semeion, “sign”). It would teach us what signs consist of and what laws govern them.

While recognizing that, inasmuch as “it does not yet exist, one cannot say what form it will take”, Saussure wished to insist that the prospective science in question is one that “has a right to existence” and a place “marked out in advance”. It will study “the life of signs at the heart of social life” and be “a branch of social psychology”. “The laws

reasons of his own, fails to make explicit”, Miller avers (p.43), “that the causal relation, as he describes it, is essentially what the philosophical tradition had understood as a sign relation”. Along this line, Miller is able to suggest a semiotic interpretation for the British tradition as a whole “between the mid-seventeenth and the mid-eighteenth centuries” (p. 51): “the relation of cause and effect is reduced to what previously had been understood as a sign relationship”, but without ever having been radically thought through in what is proper to it or clarified in its ground. On this interpretation, modern idealism itself would have been a consequence of the failure of modern philosophers to explore the semiotic option Locke called for belatedly and little-noticed.

20. Saussure i.1911–1916: 33.

that semiology will discover” are, accordingly, the laws governing “the totality of human phenomena”, or culture in its contrast with nature.

We see then that Saussure’s intuition was fatally flawed in its original formulation. He placed on his intuition of the need for a science of signs the fatal qualification of viewing it as a subordinate (or “subaltern”) rather than as an architectonic discipline respecting the whole of human belief, knowledge, and experience, as we have seen its internal requirements dictate. He further compromised his proposal for the enterprise by making of linguistics “le patron générale de toute sémiologie”, raising the “arbitrariness of signs” into a principle of analysis for all expressive systems. Thereby he obscured the much more fundamental interplay of the subjectivity of the physical environment and the subjectivity of the cognizing organism in the constitution of objectivity for *Umwelten* in general and the human *Lebenswelt* in particular, whereby, in the latter case, even the linguistic sign in its public functioning becomes assimilated from the start to a natural form, as far as its users are concerned.

The duality of *signifiant* and *signifié*, in a word, lacked the thirdness whereby the sign in its foundation (and whether or not this foundation be essentially arbitrary or “stipulated”) undergoes transformation into first an object and then into other signs. The dynamics of the process linking semiosis in culture with semiosis in nature, and making one the extension of the other in an ongoing spiral of interactions, needs to be brought in. But, for that, the framework needs to be radically reformulated. As far as the contemporary establishment of semiotics goes, it was the privilege of Charles Sanders Peirce to provide just such an alternative framework under the influence of Locke’s suggestion.

Let us look with some care at what Peirce did with Locke’s suggestion, and see if we can see with something of dispassion “Why”, as Short puts it,²¹ “we prefer Peirce to Saussure” today. We will see at the same time something of the doctrinal convergence Peirce, working with contemporary and modern materials, achieves with the foundational synthesis of a doctrine of signs distilled by Poinset from the materials of Greek antiquity and the Latin middle age.

Beginning with his “New List of Categories” in 1867, and continuing until his death in 1914, semiotic in this broadest sense of the study of semiosis surrounding, as well as within, the human world provided the thrust underlying and the unity for a substantial part, and perhaps even for the whole, of Peirce’s philosophy.²²

21. Short 1988.

22. The centrality of semiotic was something which came to be realized only gradually, and by later students of Peirce’s thought. Only gradually were the perceptions imposed by the pre-established perspectives brought to the study of Peirce’s own thought (such as realism, idealism, and, in particular, “pragmatism”, to name a few) overcome, by the requirements of the thought itself. Arguably, it is as an effect of this situation in particular that all of the earlier publications concerning Peirce, including notably the *Collected Papers*, have been relegated to the status of provisional enterprises.

At the same time, even in the “New List of Categories” as originally drafted, it is fair to say that Peirce labored overly under the influence of Kant as Master of the Moderns—that is to say, between the horns of the dilemma set by the (false) dichotomy of the realism versus idealism controversy. Since, as I think, semiotic in principle and by right—the *jus signi*, let us say—begins by transcending the terms of this controversy, it is not surprising that Peirce had such a time of it whenever he succumbed to the temptation to try to classify his own work in realist-idealist terms. Assuming naturally the terms of the controversy as it had developed over the course of modern thought, he only gradually came to critical terms with the fact that semiotic as such is a form neither of realism nor of idealism, but beyond both.

As a disciple of Kant in early life, Peirce labored at the impossible task of establishing the complete autonomy of the ideal/mental from what is individually existent in nature. In later life²³ he concluded that this erroneous quest had vitiated modern philosophy. Significant of this evolution of his thought is the fact that in Peirce’s later philosophy his supreme category of Thirdness changed from representation in 1867 to triadic relation as common to both representations and to laws existent in nature.²⁴

By his Lowell Lectures of 1903, and even already in his c.1890 “Guess at the Riddle”, it is clear that Peirce was well on the way to taking his categories of semiosis properly in hand and was marking out a course of future development for philosophy (as semiotic) that is nothing less than a new age, as different in its characteristics as is the “realism” of Greek and Latin times from the idealism of modern times in the national languages.

In his “Minute Logic”²⁵ we have a lengthy analysis of what he calls “ideal” or “final” causality.

He assimilates these two terms as descriptions of the same general type of causality.²⁶ But, in successive analyses,²⁷ it emerges that causality by ideas constitutes the more general form of this sort of explanation, inasmuch as final causality, being concerned

But it may also be (see particularly Kent 1987), as suggested in his breakdown of philosophy into Phenomenology (the categories), Normative Science (esthetics, ethics, and semiotics), and Metaphysics (first philosophy), that Peirce himself did not finally realize how radical semiotics is as a form of knowledge vis-à-vis the established disciplines (“First Philosophy” in particular, as I have pointed out in 1987 and 1988a), in which case he remains in this particular *primus inter pares* among the moderns in view of semiotics, rather than, as I think (for example, see c.1909: 6.322), the contemporary *pater semioticorum*.

Given the complexity of the Peircean writings and the increasing interest in their exegesis, we may safely leave this question for future resolution by the exegetes. Our interest here is not in anyone’s texts as such, but in the basics of semiotics, as we have said.

23. Peirce 1903: 1.19–21.

24. Peirce c.1899: 1.565.

25. Peirce c.1902a: 1.203–272

26. *Ibid.*: 1.211, 227.

27. *Ibid.*: 1.211, 214, 227, 231; and similarly in 1903: 1.26.

with mind, purpose, or quasi-purpose, is restricted to psychology and biology,²⁸ whereas ideal causality in its general type requires as such neither purpose²⁹ nor mind nor soul.³⁰

Now Peirce identifies this ideal causality with his category of Thirdness, the central element of his semiotic³¹ and the locus for any account of narrative, or of "lawfulness of any kind". Thirdness consists of triadic relations.³² In these triadic relations the foundations specify the several relations in different ways, so that one relation is specified, for example, as "lover of", and another as "loved by".³³

Thanks to their specification, triadic relations have a certain generality.³⁴ Signs constitute one general class of triadic relations, and the laws of nature (which are expressed through signs) constitute the other general class.³⁵ Signs themselves are either genuine or degenerate. Genuine signs concern existential relations between interacting bodies and need an interpretant to be fully specified as signs.³⁶ For the genuine triadic sign relation is a mind-dependent similarity relation between the object of the existential relation and the existential relation itself as object for the interpretant.³⁷ For example, words need an interpretant to be fully specified as signs. Triadic sign relations that are degenerate in the first degree concern existential relations between interacting bodies but require no interpretant to make them fully specified as signs. For example, a rap on the door means a visitor, with no explanation needed. Triadic sign relations that are degenerate in the second degree concern mind-dependent relations specified by the intrinsic possibility of the objects with which they are concerned, because these relations cannot vary between truth and falsity whatever any human group may think, as for example, in the case of mathematics, logic, ethics, esthetics, psychology, and poetry.³⁸

It is clear that when either science or literature, or anything in between, is considered in a semiotic framework as comprehensive as this, an exclusive treatment of its processes from the standpoint of constructed signs simply will not do. We risk being lost in crossword puzzles of great interest, maybe, but without validity as modes of understanding the semiosis peculiar to humanity as it extends and links up again with the semiosis that weaves together human beings with the rest of life and nature.

28. Peirce c.1902a: 1.269.

29. *Ibid.*: 1.211.

30. *Ibid.*: 1.216; cf. the analysis of Poinset 1632a: 177/8–178/7.

31. Peirce 1903: 1.26.

32. Peirce c.1899: 1.565.

33. Peirce 1897: 3.466.

34. Peirce c.1902a: 2.92; 1903: 1.26.

35. Peirce c.1896: 1.480.

36. Peirce c.1902a: 2.92.

37. Peirce 1904: 8.332.

38. Peirce 1903a: 5.125; 1908: 6.455; c.1909: 6.328.

Thus, the work of Peirce is regarded justly as the greatest achievement of any American philosopher, and at the same time the emergence of semiotic as the major tradition of intellectual life today throws the lost work of Poinset into relief for its original contribution. Just as the writings of the American philosopher Charles Peirce first illustrated something of the comprehensive scope and complexity in detail of issues that need to be clarified and thought through anew in the perspective of semiotic, so did the Iberian *Tractatus de Signis* of John Poinset first express the fundamental character of these issues in light of the ultimate simplicity of the standpoint determining the semiotic point of view. The late Dean of Peirce scholarship, Max H. Fisch, commented with emphasis in this regard³⁹ that, within its limits, Poinset's work provides us with "the most systematic treatise on signs that has ever been written".

Just as semiotics itself appears today as a completely unexpected development within the traditionally established entrenchments of disciplinary specialization, so does it require a thorough re-examination of the relation of modern thought in its mainstream development to Latin times in general and to the Iberian Latin development in particular. In renewing the history of thought and restoring unity to the ancient enterprise of so-called philosophical understanding, Poinset's work occupies a privileged position in the mainstream of semiotic discourse as we see it developing today. "Poinset's thought", Sebeok points out⁴⁰

belongs decisively to that mainstream as the "missing link" between the ancients and the moderns in the history of semiotic, a pivot as well as a divide between two huge intellectual landscapes the ecology of neither of which could be fully appreciated prior to this major publishing event.

For the fundamental reason pointed out by Williams⁴¹ in observing "that historical narrative is the only logic capable of situating competing traditions and incommensurate paradigms in a perspective that not only lends each a higher degree of clarity on its own terms as well as in relation to the others, but also decides which paradigms will emerge as victorious", the perspective of semiotic requires of anyone seeking to adopt and develop it a cultivation also of a sense of how the transmissibility of the past in anthroposemiosis is an essential constituent and not something at the margins of present consciousness.

In this way, in particular, semiotics puts an end, long overdue, to the Cartesian revolution (the collection edited by is very helpful in this regard⁴²) and to the pretensions

39. Fisch 1986.

40. Sebeok 1982: x.

41. Williams 1987a: 480.

42. Chenu 1984.

of scientific thought to transcend, through mathematical means, the human condition. The model for semiotics is rather that of a community of inquirers, precisely because "the human *Umwelt* presents us with a continuum of past, present, and future in which continuity and change, convention and invention, commingle, and of which the ultimate source of unity is *time*".⁴³ Thus, the work of Williams⁴⁴ and of Pencak⁴⁵ in penetrating the traditional field of historiographical study from an explicitly semiotic point of view, is one of the most essential advances in the developing understanding of semiotics today.

Eventually, we will see that the doctrine of signs requires for its full possibilities a treating of history as the laboratory within which semiosis, anthroposemiosis in particular, achieves its results, and to which it must constantly recur when an impasse is reached or new alternatives are required. Thirdness, after all, is what history is all about.

2.6 Jakob von Uexküll

So far, we have seen that the small number of pioneers—in particular, Poinset, Peirce, and, to a lesser extent, Saussure—who tried to explore and establish directly the foundational concepts for a doctrine of signs found the way clogged with an underbrush of conceptual difficulties rooted in the prevailing thought structures and obstructing the access to the vantage point from which the full expanse of semiotic might be developed. Peirce, for this reason,⁴⁶ described the pioneer work "of clearing and opening up" *semiotic* as the task rather of a *backwoodsman*.

Once the foundations have been secured, there remains the task of building the edifice and the enterprise of semiotic understanding, by elucidating at all points the crucial processes comprising the interface of nature and culture summed up in the term *semiosis*. This task, too, is clogged by underbrush accruing from presemiotic thought structures that must be cut away as semiotics reclaims from previous thought contributions essential to its own enterprise of reflective understanding.

We have now to see how the history and theory of semiotics includes as well background figures who, without explicitly understanding their work as semiotic, have made useful and even decisive contributions toward the recognition of what appears in its full propriety within the widening vista of semiotics. In the case of thinkers who did not deal directly, in the sense of with set and conscious purpose, with the notion of semiotic foundations, the wrestling in areas of semiotic functionings with conceptual difficulties accruing from obstructive thought structures is made all the more difficult

43. Williams 1985: 274.

44. Williams 1982, 1983, 1984, 1985–1987, 1987a, 1988.

45. Pencak 1986, 1993; Williams and Pencak 1991.

46. Peirce c.1907a: 5.488.

for the want of an explicit entertainment of an alternative to the prevailing mindsets. In such a case, the very obstructions risk being incorporated into the creative conceptions themselves. When this happens, an inevitable degree of distortion results, to the extent that the creative novelties become assimilated to paradigms exclusive of the foundational clarity and expanse the perspective of semiotics could eventually provide.

There are thus three classes of what Rauch⁴⁷ calls semiotists: there are the semioticians, workers who begin from the vantage point and within the perspective of the sign; there are the pioneers or founding figures of semiotics, the protosemioticians, who struggled to establish the essential nature and fundamental varieties of possible semiosis; and there are also, among the ranks of present and past workers of the mind, cryptosemioticians, who need themselves to become aware of the perspective that semiotic affords⁴⁸ or whose work needs to be by others reclaimed and re-established from within that perspective.⁴⁹ In particular, oppositions seemingly irreconcilable from the standpoint of the customary juxtaposition of idealism to realism often admit of subsumption within a higher synthesis from the vantage of semiotic. In such a way, apparent contradictions within the history of semiotics need not always remain so at the level of theory.

Here, and by way of concluding our historical sketch, we will deal with the case of one of the greatest cryptosemioticians of the century immediately following the publication in 1867 of Peirce's "New List of Categories", Jakob von Uexküll. The *Umwelt-Forschung* he pioneered (1899–1940) is probably the most important recent illustration of a cryptosemiotic enterprise transcending, in the direction of semiotic, the limitations it otherwise imposed upon itself by embracing too intimately the mindset and paradigm immediately available in the milieu of the time and place.

When we talk of the *Umwelt*, as we have seen, we are talking about the central category of zoösemiosis and anthroposemiosis alike. The objective world generated at only these levels of semiosis finally constitutes, to borrow Toews felicitous phrase,⁵⁰ "the autonomy

47. Rauch 1983.

48. As happened in the case of Harley Shands in the context of medicine, or more recently to Martin Esslin in the context of drama, according to his own report (1987: 10): "This *semiotic* approach is, basically, extremely simple and practical. It asks: how is it done? and tries to supply the most down-to-earth answers, by examining the signs that are used to achieve the desired communication."

"There is, of course, nothing radically new here, except that the enterprise is systematic and methodical rather than ad-hoc and impressionistic. When I first came across the beginnings of the new scholarly literature on the *semiology* and *semiotics* of the theatre and film I felt rather like Molière's M. Jourdain who was surprised to discover that he had been talking 'prose' all his life."

49. Of the two alternatives, the first is preferable by far, but it is available only to present and future workers, just as this second alternative is the only one available in the task of bringing within the perspective of semiotic works whose creators belong irrevocably to the past. The second alternative defines the requirements of semiotic historiography, which has, as one among its several tasks, to "assess the contributions of a host of 'neglected' giants". It was in this context that Sebeok (1976a: x) coined the term "cryptosemiotician".

50. Toews 1987.

of meaning and the irreducibility of experience" to anything that might be supposed to exist independently of it. This concept, belonging to the biological foundations that "lie at the very epicenter of the study of both communication and signification in the human animal",⁵¹ we owe principally to the work of Jakob von Uexküll. So it is not surprising that von Uexküll has begun to emerge within contemporary semiotics as perhaps the single most important background thinker for understanding the biological conditions of our experience of the world in the terms required by semiotic.⁵²

Having already shown synchronically how useful this concept is to semiotics, we will now look at von Uexküll's work diachronically in terms of its "semiotic lag", the phenomenon wherein the terms used in articulating a newer, developing paradigm inevitably reflect the older ways of thinking in contrast to which the new development is taking place, and hence constitute a kind of drag on the development, until a point is reached whereat it becomes possible to coin effectively a fresh turn of phrase reflecting precisely the new rather than the old. The new terminology has the simultaneous effect of ceasing the drag and highlighting what in fact was developing all along.⁵³

In the case of Jakob von Uexküll, the drag is a consequence of having rooted his biological theories to an eventually counterproductive degree in the philosophy of Immanuel Kant.⁵⁴ On the positive side, it was Kant who best focussed thematic attention on the constructive regularities at work from the side of the subject in establishing the objects of experience so far as they belong to the phenomenal realm of the appearances of everyday life. Appreciation of the constructive role of the cognitive powers of the knowing subject and of that subject's affective shaping of cognitive content in the presentation through perception of what is known was, to be sure, an essential advance of philosophical understanding in the matter of dealing theoretically with the origins of knowledge and the nature of experience in the assessments of belief and practices. The emphasis on these matters communicated from Kant to von Uexküll was indispensable.

Dispensable was the Kantian failure to deal with the rationale according to which the constructive elements contributed by the subject—so-called concepts or ideas—are abductively arrived at as necessary postulates in the first place. This rationale was one of the several threads in the discussions crucial for epistemology that developed over the closing Latin centuries—particularly in Iberia—and were lost to the modern development as it took place, after Descartes, through the Latin filter of Suarez's *Disputationes Metaphysicae* of 1597.

51. Sebeok 1976a: x.

52. In this respect, Jakob von Uexküll's role in semiotics has some important structural isomorphisms with the role of Frege in the development of analytic philosophy or of Brentano in the development of phenomenology (see Deely 1975).

53. Cf. Merrell 1987.

54. Esp. Kant 1781, 1787.

In the German and Kantian context—even more, if possible, than in the modern context generally—the opposition of the terms “subjective” and “objective” is a firmly established dichotomy whose transparency is self-evident. Within this context, von Uexküll himself, who, as his son notes,⁵⁵ did not think of his work thematically under the rubric of semiotic, had little alternative to seeing the Umwelt in opposition to the supposed and so-called objective, and as belonging to the phenomenal realm in Kant’s sense—on the side of the “subjective”, that is, dichotomically conceived in opposition to the supposed “objective”.

The want of alternative for von Uexküll himself has resulted in considerable confusion regarding his work in general (through misplaced associations with “vitalism”) and, specifically, in notorious difficulties in interpreting (or “translating”) the key term, “Umwelt”.⁵⁶ The difficulties are a clue to the real problem.⁵⁷ As far as semiotics is concerned, von Uexküll’s work needs to be thought through afresh at the level of basic terminology generally and specifically as regards the extent of reliance placed on the Kantian scheme for philosophy of mind.

Thure von Uexküll, for example, in explaining his father’s work for the context of semiotics today, unwittingly brings out the inconsistency that obtains between an orthodox Kantian perspective and the perspective of semiotic. According to the son’s account (I choose an example where the inconsistency that runs throughout the account

55. T. von Uexküll 1981: 148.

56. Schüller (1957: xiii), for example, refers to the difficulty of rendering von Uexküll’s key terms outside the German—especially Umwelt but also the related terms “by which von Uexküll seeks to represent the relations between the objective world and the world as it appears to the animal”. Here, the term “objective” retains entirely its presemiotic content where it is a misleading synonym for the preajent physical being of the environment, which being, we have seen, is in fact a form of subjectivity, equally with the knower as organism forming part of the physical surroundings. Since she was undertaking her work of translation against this radically presemiotic interpretive horizon, it was fortunate indeed that she decided to retain Umwelt in her translation and to allow the new English context to give this technical term a new sense beyond the explicit choices of a translator. (Perhaps she was sufficiently warned by MacKinnon’s “translation” of von Uexküll 1920, which left everything in the dark: better at least to bring one term, the central one, into the light of day !)

57. It is worth asking why, if von Uexküll’s key terms within German have only an explicitly Kantian sense, have they been so widely misunderstood also by German speakers who know quite well the Kantian philosophy? Our reappropriation from the modern context of the term “object” and “objective”, as deployed in the present work, seems to me necessary to make sense of the very title von Uexküll gives to a main section in one of his key essays (1934: 73), “The Same Subject as an Object in Different Umwelten”. In reality, the problem is more doctrinal than linguistic: von Uexküll’s terms are also original in German, although their novelty there is hidden behind the pre-existing verbal forms. The problem, as I have recently had occasion to argue at length in relation to other thinkers (Deely 1986e, 1988), is more radical and also systematic. The problem is one of perspective: the perspective of semiotic is not assimilable to the previous perspective of an idealism any more than of a realism.

is concisely illustrated within one short paragraph):⁵⁸ on the one hand, “A schema is a strictly private program” for the formation of complex signs “in our subjective universe”; and, on the other hand, “The schemata which we have formed during our life are intersubjectively identical” at least “in the most general outlines”. But, of course, to speak of the intersubjective save as a pure appearance, in a Kantian context, is as internally inconsistent as to speak of a grasping of the *ding-an-sich* in that same context (as Hegel best noted).

The conflict, thus, is between an idealist perspective in which the mind knows only what it constructs and the semiotic perspective in which what the mind constructs and what is partially pre-jacent to those constructions interweave objectively to constitute indistinctly what is directly experienced and known.

Himself immersed in the Kantian philosophy—that is, the most classical of the classical modern idealisms—Jakob von Uexküll yet was creating in spite of that immersion, through a creative intuition of his own, a notion anticipating another context entirely, a context which had yet to catalyze thematically and receive general acceptance under its own proper name, to wit, the context of semiotic as the doctrine of signs. He was inadvertently precipitating a paradigm shift. A formula I applied to Heidegger,⁵⁹ *mutatis mutandis* (that is, substituting “biologist” for “philosopher” and “from within” for “against”) can be applied to Jakob von Uexküll: among modern biologists he is the one who struggled most from within the coils of German idealism and in the direction of a semiotic.

For, unlike Heidegger, who expressly wrestled with reaching an alternative to the existing paradigms both realist and idealist, von Uexküll embraced a horn of the false dilemma: he saw himself as merely extending the Kantian paradigm to biology. He did not see that such an “adaptation” presupposed a capacity of human understanding incompatible with the original claims Kant thought to establish for rational life by his initiative. In other words, to apply Kant’s paradigm as von Uexküll intended, it was necessary in the application already to transcend the paradigm—an adaptation of the original through mutation indeed.

The genuine adoption by a human observer of the point of view of another life form, on which Umwelt research is predicated, is a-priori impossible in the original Kantian scheme. Either *Umweltforschung* is a form of transcendental illusion, or, if it is valid—if, for example, von Frisch really did interpret with some correctness the bee’s dance or von Uexküll the toad’s search image—then von Uexküll, in extending Kant’s ideas to biology, was also doing something more, something that the Kantian paradigm did not allow for, namely, achieving objectively and grasping as such an intersubjective

58. T. von Uexküll 1981: 161.

59. Deely 1986: 56.

correspondence between subjectivities attained through the sign relation.⁶⁰

Once it is understood that the classical terms of the subject-object dichotomy are rendered nugatory within the perspective of a doctrine of signs and that, within this context, the term “objective” functions precisely to mean the prospectively intersubjective, in opposition to *both* terms of the dichotomy classically understood, new possibilities of understanding are opened up. These possibilities are more in line with what is at the center of, and original to, von Uexküll’s work than could be seen through the filter of Kantian idealism, which provided at the time the only developed language available to a scientist of philosophical bent. As “a consistently shared point of view, having as its subject matter all systems of signs irrespective of their substance and without regard to the species of the emitter or receiver involved”,⁶¹ semiotics requires a theoretical foundation equally comprehensive. That foundation can be provided only by an understanding of the being with its consequent causality and action proper to signs in their universal role. With all the subdivisions, neither a perspective of traditional idealism nor of traditional realism has the required expanse.

As semiotics comes of age, it must increasingly free itself from the drag of pre-existing philosophical paradigms. Beginning with the sign—that is, from the function of signs taken in their own right within our experience (semiosis)—it is the task of semiotics to create a new paradigm—its own—and to review, criticize, and improve wherever possible all previous accounts of experience, knowledge and belief in the terms of *that* paradigm. It is thus that the *history* of semiotics and the *theory* of semiotics are only virtually distinct, forming together the actual whole of human understanding as an achievement, a *prise de conscience*, in process and in community.

The maxim for that process, accordingly, is the same as the maxim for semiotics itself: *Nil est in intellectum nec in sensum quod non prius habeatur in signum* (“There is nothing

60. Von Uexküll’s work can be regarded from this point of view as an indirect demonstration, through an inadvertent *reductio*, that the elaborate constructive work that Kant had attributed to human reason as such, first of all and primarily belongs rather to perceptual and sensory apprehension in what of it contrasts essentially with the apprehension distinctive of the understanding which, in its proper act, is constructive secondarily rather than primarily. The primary act of distinctively human intelligence is intuitive, rendered existential through its continuity with sensation, and, at the same time, constructive through its dependence upon perception and species-specific biological heritage as well as past experience. But its primary act in its own order, at each moment, would seem to be to see and to *recognize* within the very constructions of objectivity the problem of other as other—that is, as revealed within the constructions as also more than and aspectually disengageable through analysis from the constructions—whence arise all the further problems of justice on the one hand (“morality”) and science on the other. As we saw in Chapter 5, it is a question of the sort of apprehension required for objects to possess within experience the extrinsic denomination of stipulability.

61. Sebeok 1968: 64.

in thought or in sensation which is not first possessed in a sign").⁶² For it the *anthropos* as semiotic animal is an interpretant of semiosis in nature and culture alike, that can only be because the ideas of this animal, in their function as signs, are not limited to either order, but have rather, as we explained above, the universe in its totality—"all that wider universe, embracing the universe of existents as a part"—as their object.

3. Rectifying the Terms "Semiotics" and "Semiology"

The passing treatment of Saussure above can stand considerable amplification, and the time is ripe to assess, in the perspective of semiotics, the heritage of semiology to which Saussure's work gave rise continuing into the present, most recently under the banner of "deconstruction". We need to look more fully at the fact that the father of scientific linguistics was also the author of one of the two programmatic statements proposing a general study of signs.

The name proposed for this new field of inquiry in Saussure's statement was "semiology". The first such statement, apparently unknown to and certainly unmentioned by Saussure, John Locke authored in 1690 as the conclusion to his *Essay concerning Humane Understanding*. Locke had proposed $\eta\mu\omega\tau\iota\kappa$ as the name for the general study, which transliterates into Latin as "*semiotica*" and into English as "semiotics". Both of these proposals are of a very few pages, Saussure's of 1916⁶³ being about three pages in length and Locke's of 1690 being less than two pages.⁶⁴

The authorship of Saussure's statement is somewhat more ambiguous than was Locke's, in that it appeared in print only posthumously, and on the basis of class notes taken between 1906 and 1911 and edited by Charles Bally and Albert Sechehaye with the collaboration of Albert Riedlinger for publication in 1916 as *Cours de Linguistique Général*. Saussure's proposed name for the general study, "semiology", however, has been traced back to November of 1894 in a note by Saussure himself,⁶⁵ and Naville⁶⁶ reports an earlier version essentially similar to what will appear in the *Cours* in 1916. The full proposal as we find it in the *Cours* is only slightly longer than Locke's earlier proposal,

62. Those interested in the linguistic peculiarities of the maxim's formation grammatically considered should consult the Foreword to the *Semiotics 1987 Annual Proceedings Volume* of the Semiotic Society of America, page v in particular.

63. Saussure 1916: 33–36.

64. Locke 1690: 361–362. The text of Locke's original programmatic statement has been recently reproduced photographically from the first edition of his *Essay* in: Deely *et al.* 1986: 3–4; Deely 1993c; and Deely 1994a: 112.

65. Godel 1957: 275.

66. Naville 1901: 104.

and this is increased slightly again with the added paragraph⁶⁷ on how natural signs are to be treated within semiology, namely, through an assimilation to the model of signs as conventional.

Much of the history of the development of contemporary semiotics has taken the form of a contest between these two original designations, “semiotics” as derived from Locke’s late 17th century proposal and “semiology” as derived from Saussure’s independent turn of the 20th century proposal. Thomas A. Sebeok has the distinction, among many other distinctions, of having been the first to recognize clearly both the fact and the importance of this cleavage for an integral understanding of semiotics and an assessment of its proper possibilities. For despite their common etymological root in the Greek word σημεῖον (“*semeion*”) for “sign” (or, more precisely, for “*natural sign*”, since the Greeks had no term for a notion of sign generic to the cultural, especially linguistic, phenomena and the phenomena of nature), and notwithstanding their common recognition that a general study of signs would be a new departure in the organization of human knowledge, the two programmatic statements are radically different.

In Locke’s proposal, no definition of sign is given beyond its identification with the means whereby knowledge of whatever sort is acquired, developed, and communicated. Locke frankly admits that, so far as he was aware, ideas along with words had never yet been considered in such a perspective; and he prophetically surmised that, were they to be so considered, we would arrive at “a different sort of Logick and Critick”. Despite his use of the pregnant Latin expression “doctrine of signs” as a synonym for semiotic in his proposal, Locke appears to have been mainly ignorant of the principal medieval Latin development of semiotic in the Hispanic world as it had taken place even in his life time.⁶⁸

In Saussure’s proposal, by contrast, everything is made to turn on the specifically linguistic sign as the paradigm case for semiological analysis. “When semiology becomes organized as a science, the question will arise whether or not it properly includes modes of expression based on completely natural signs”, he says.⁶⁹ By way of answer, he asserts that, even if the new science welcomes natural signs, “its main concern will still be the whole group of systems grounded on the arbitrariness of the sign” because “signs that are wholly arbitrary realize better than the others the ideal of the semiological process”.⁷⁰ For this reason, language, “the most complex and universal of all systems of expression, is also the most characteristic”; and linguistics, which takes language for its object, “can become the master-pattern for all branches of semiology”. Thus was born Saussure’s idea of linguistics and the linguistic sign as *le patron général* for any general study of signs.

67. Saussure 1916: 102–103.

68. See Deely 1982: Part I, esp. 23–82; 1994a: 53–143.

69. Saussure 1916: 102.

70. *Ibid.*: 103.

To the linguistic sign, the paradigm for semiological study, Saussure assigns a very precise understanding. It is the arbitrary linkage—that is to say, a linkage unmotivated by any natural connection—of a concept with an acoustical image. Saussure is quite explicit on the point:⁷¹ “I propose to retain the word *sign* to designate the whole and to replace concept and sound-image respectively by *signifié* and *signifiant*.” But he is also careful to warn that “If I state simply that a word signifies something when I have in mind the association of a sound-image with a concept,” I am making a statement that by no means expresses the linguistic fact in its essence and fullness.⁷²

The signifiant is not a mere sound but rather “the phonic differences that make it possible to distinguish this word from all others, for differences carry signification.”⁷³

This point opens up the true vista of semiological analysis. What is central to the progress of semiology, it turns out, is not the linguistic sign as a positive fact, as if it were an entity in its own right, but, on the contrary, the fact that this sign is held together from without by the oppositions between words—i.e., between linguistic signs. “The entire mechanism of language,” Saussure says,⁷⁴ “is based on oppositions of this kind *and on the phonic and conceptual differences that they imply*” (emphasis added). Linguistic value is not the property of a (linguistic) sign (a word) standing for an idea (a signifié), it is the system of similarities and differences among signifiants and signifiés which keep the two in linkage despite the absence of any internal motivation for the linkage so maintained.

Here is what is crucial to the linguistic sign: that⁷⁵ “in language there are only differences,” differences “*without positive terms*” (emphasis added). The linguistic sign, the pairing of signifiant and signifié, is indeed something “positive in its own class.”⁷⁶ But the pairing is maintained by *nothing internal* either to the signifiant or the signifié. The pairing is what constitutes the elements of the linguistic (or any semiological) system as such, but the relations among the elements alone hold each element together as a positive unity. The content of the linguistic sign—its signification—“is really fixed only by the concurrence of everything that exists outside it” in the system of oppositions through which the differences—both phonic (signifiant) and psychological (signifié)—carry the signification.

The logic of similarities and differences thus opened up, applicable to all unities insofar as they consist of an intelligible content mind-dependently linked in social conventions to a sensible expression through a system of values obtaining among the elements so constituted is what proves to be the heart of the idea of semiology. The

71. Ibid.: 101.

72. Ibid.: 169.

73. Ibid.

74. Ibid.: 174.

75. Ibid.: 172, italics added.

76. Ibid.: 173.

linguistic sign is the key, but the system of values, and analysis in terms of them as a play of differences, is the vista this key opens.

Despite Saussure's insistence on the primacy not just of language but of language as spoken, further reflections revealed that the acoustic image is by no means the only way a semiological unit can be embodied. As the work of Derrida would later best show, it is possible to substitute for the acoustic image any similarly mental image, visual or tactile. Nor is the concept the only psychological content that can be paired with a material image as embodiment. It is possible to substitute for the concept an imagination or a feeling. The scope of semiological analysis knows only one constraint: that the elements of the system it analyzes be constituted from without according to a mind-dependent relation determined by a community, that is to say, one which knows no intrinsic motivation either on the side of the signifiant or on the side of the signifié. Any sign "linguistic" in this sense will serve as the vehicle for semiology. Thus we can have a semiological analysis of art, architecture, music, and indeed of any cultural phenomenon.

In this way, it is possible to see in Saussure's original proposal two distinct possibilities for semiology, one broad, the other narrow. The broad view is implied in the following text.⁷⁷

All our proposals derive their rationale from this basic fact. If one wishes to discover the true nature of language systems, one must first consider what they have in common with all other systems of the same kind. *Linguistic factors which at first seem central... must be relegated to a place of secondary importance if it is found that they merely differentiate language from other such systems.* In this way, light will be thrown not only upon the linguistic problem. By considering rites, customs, etc. as signs, it will be possible, we believe, to see them in a new perspective. The need will be felt to consider them as semiological phenomena and to explain them in terms of the laws of semiology.

One could argue from this that distinctive linguistic features, instead of providing the paradigm for semiology, merely serve to distinguish language as one among the many other semiological systems.

In the narrow view, however, which Saussure himself more unmistakably championed, "linguistics serves as a model for the whole of semiology, even though languages represent only one type of semiological system."⁷⁸ For linguistic signs are of all the phenomena of culture the most arbitrary, i.e., the least intrinsically motivated in terms of the unity of their elements; and the more arbitrary the sign the better the system to which it belongs illustrates "the ideal of the semiological process."⁷⁹

77. Saussure 1916: 33–36, emphasis supplied.

78. Saussure 1916: 103.

79. Ibid.

Both the broad and the narrow view enabled by Saussure's proposal for semiology have found protagonists who have carried the possibilities to their utmost extreme. Representing the narrow view has been Roland Barthes. For Barthes,⁸⁰ "the world of signifieds is none other than the world of language". Though allowing that language as the linguist conceives of it may perhaps have to be broadened through the perspective of semiology, Barthes proposes that we must "face the possibility of inverting Saussure's declaration: linguistics is not a part of the general science of signs, even a privileged part. It is semiology which is part of linguistics."⁸¹

Representing the broader view has been Jacques Derrida with his notion of *Grammatology*⁸² and *différance*,⁸³ arrived at by destroying Saussure's insistence on the primacy of spoken language in the paradigm for semiology. However, Derrida's central notions are neither as recondite nor as profound as he would try to present them.

Crucial to keep in mind here is the technical terminology of semiology taken over from Saussure by Derrida: *concept* means always *signifié*; *word* means always an arbitrary *sign*, a sign which lacks any internal reason for the connection between a *signifié* and the *signifiant* with which it is nonetheless correlatively linked.

Thus, when Derrida says⁸⁴ that "every concept is inscribed in a chain or in a system within which it refers to the other, [i.e.,] to other concepts, by means of the systematic play of differences", and that such a play is "*différance*", despite the new word and change in emphasis it signals, we have advanced not a step beyond Saussure. Saussure has already told us⁸⁵ that the concept semiologically conceived "is only a value determined by its relations with other similar values", and so also for the *signifié*.

But when Derrida repeatedly tells us that *différance*, the play of semiological differences constituting and carrying the arbitrary significations, is "neither a concept nor a word among others",⁸⁶ like the attempted suicide who seems to be seeking death but in reality is crying out for assistance, Derrida seems to be saying something new and profound but in reality is crying out the inadequacy of the Saussurean notion of sign for the general problematic of semiotic. For in saying that *différance* is neither a word nor a concept, Derrida is saying only that it is neither a sign nor a *signifié*, which is hardly an exclusive or an exhaustive enumeration of possible subject matters. In fact, it is the notion of "subject matter itself of discourse" that Derrida fails to properly take into account.

80. Barthes 1964: 11.

81. *Ibid.*

82. Derrida 1967.

83. Derrida 1968.

84. Derrida 1968: 11.

85. Saussure 1916: B 117.

86. Derrida 1968: 11.

If we bear in mind that the signifié is only the conceptual part of the sign as a totality whose “other half” is the signifiant, a material image (whether acoustical, as for Saussure, or of some other kind, as the broad view of semiology allows), and if we introduce the point learned from Poinot and Peirce that the signs *as a whole* is constituted as such only by a reference beyond itself in either of its foundational parts, then this triadic element—this Third—is what différance becomes as a subject discoursed about, that is to say, an object on a footing with all objects in their difference in principle from “things” constituting the physical environment.⁸⁷ But to see this is to pass at once beyond the dyadic notion of signification which is the heart of semiology as such, narrow or broad.

Whence again, in saying⁸⁸ “that the signified concept is never present in and of itself in a sufficient presence that would refer only to itself”, Derrida is telling us no more that the concept, unlike the word within which it lives, exists so as to make of the word a sign whether or not it—the concept as part of that sign—is also itself objectified; and that the concept, as the foundationally formal part of the word as sign, even objectified remains in its own being a sign outside of and apart from that objectification (is what the late medievals called a “formal sign”, i.e., a representation which cannot exist without giving rise to a relation which, over and above the concept as foundation, finds its terminus in an object other than itself).

Turning from these Saussurean developments, if we compare the history of Locke’s proposal for semiotics with that of Saussure’s, we have to note right off that Locke’s suggestion fell comparatively still born from the press.⁸⁹ Unlike Saussure, who proposed that the general study of signs would be a discipline or science subalternate to social psychology,⁹⁰ Locke proposed the general study of signs as an independent science in its own right, co-ordinate with the sciences of nature on the one hand and the sciences of culture on the other hand, as investigating the means whereby knowledge in whatever area is acquired, developed, and communicated. And instead of tying his proposal to one fully determinate and specific type of sign, he made it clear that he conceived that the general notion of sign would have to cover equally internal and external expressions of knowledge, “words and ideas”, as he quaintly and synecdochically put the matter.⁹¹

87. As Poinot pointedly summarized (1632: 270/39–271/7): “differences of things as things are quite other than the differences of things as objects and in the being of an object; and things that differ in kind or more than in kind in the one line, can differ in the other line not at all or not in the same way. And so, seeing that the rationale of a sign pertains to the rationale of the knowable [the line of thing as object], because it substitutes for the object, it will well be the case that in the rationale of object a mind-independent natural sign and a stipulated mind-dependent sign are univocal signs; just as a mind-independent being and a mind-dependent being assume one rationale in their being as object, since indeed they terminate the same power, namely, the power of understanding, and can be attained by the same habit,....”

88. Derrida 1968: 11.

89. Deely 1993.

90. Saussure 1916: 34.

91. Deely 1994a: 116–123.

Until Charles Peirce read Locke's proposal in the late 1860s, no one had taken it at face value, perhaps not even Locke himself. Put Peirce read Locke's outline in the context of his own knowledge of medieval semiotics as it had been developed in the years just prior to Locke's own work. Peirce assigned to the notion of sign right from the outset the notion of a triadic relation in which there are three terms: what we ordinarily call the "sign" but which in reality is but the sign-vehicle and may be a psychological reality as well as an outwardly sensible, material structure; the object signified, which may but need not be also a material reality existing within the physical environment; and an interpretant on the basis of which the sign vehicle represents its significate to some mind, actually or only virtually.

If we compare this triadic notion of sign to the dyadic semiological notion, we find that precisely what is missing from the semiological model of semiosis is the significate, or object signified—quite another matter than the Saussurean *signifié*, despite the inevitable equivocal translation of Saussure's term (a verbal equivocation which, once thematized, leaves little of distinctive enduring value in the work of Derrida). This semiotic notion of objectivity, it is true, has yet to be fully developed.⁹²

Nonetheless, by opting for an irreducibly triadic model, Peirce picks up the ancient and medieval notion of a "semiotic triangle" which was common to ancient Greek and medieval Latin analyses, despite their many other differences (including the ancient restriction of signs to natural phenomena). In Peircean terms, the Saussurean or, more generally, semiological notion of sign is hopelessly deficient on several counts for developing any general science of signs. To begin with, the signifiant corresponds more or less to the sign-vehicle, but the signifié corresponds only partially to the notion of interpretant, and the notion of object signified is entirely wanting in the scheme.

In fact, the Saussurean terminology on this point has led to no end of confusion and analyses at cross-purpose. For the only plausible translation for signifié, Saussure's technical term for the concept, is significate or signified, whereas a concept is not what is meant in principle in any of the major semiotic writings by the term *signatum*. The signified or significate has always been the *object* of some signification, be it the signification of a concept or the thence derived signification of a linguistic expression (written, spoken, or gestured). Derrida's *différance* may well be and indeed is no word or concept on Saussure's terms, but it is indeed an object in the semiotic sense, as is anything signified, whether through language or through any other manifestation of semiosis; for an object is what anything, physical or psychical, becomes when and insofar as it is discoursed about or apprehended in any way.

Similarly, the semiological insistence on systems of signification held together without any internal motivation binding their elementary units, while claiming an etymological

92. Deely 1994: Gloss 2, p. 136.

derivation from the Greek notion of sign, in fact is the polar opposite of the ancient notion of *σημείον*. For while the ancient notion did not extend to cultural expression, so, inversely, the semiological notion precludes natural signs in the intrinsic motivation which constitutes them properly as such. From this point of view, semiology is less a genuine move in the direction of a general doctrine of signs that it is an importing of the perspective of modern philosophy into the field of semiotics. Semiology in this regard is what semiotics would be if it were reduced to a consideration of signs compatible with the idealist epistemologies of classical modern philosophy, according to which knowledge of nature in its proper being is precluded. Semiology, in short, in spite of the rhetoric and pretensions of its main contemporary practitioners, is not at all postmodern but rather a last frontier of modernity; but semiotics is determinately postmodern, and may be said to provide the positive content for the notion of postmodernity⁹³ as adversative to the modern epistemologies still essentially at play from Saussure to Derrida.

For semiotics, in Locke's programmatic statement and in its medieval emanation from Augustine no less than in Peirce's contemporary proposals, precisely began from a general notion of sign respecting which natural and cultural signs, including language, are but species. In medieval terms, Augustine's original definition of sign as necessarily accessible to outward sense was criticized as too narrow, for excluding the "passions of the soul" which also serve to perform the essential sign-function of making present objectively that which they themselves are not. Semiotics in its major developments criticizes Saussure's definition of sign as similarly too narrow by excluding in natural signs that which is proper to them, namely, a mind-independent, or intrinsically motivated, relation to the object signified. For semiotics, in short, whether we consider the irretrievably dyadic character of the semiological sign or whether we consider the need for a general notion of sign to be superior to the division of being into natural and cultural, the semiological perspective simply will not do. It fails (at worst) as hopelessly inadequate to the problematic which semiotics sets itself or (at best) as irredeemably restricted to one part of the semiotic field, namely, the part occupied by phenomena of culture considered in contrast to nature. Semiotics, by contrast, insists on seeing nature and culture as compenetrative. Whether semiology be broadly or narrowly conceived, it transforms the project of a general theory of doctrine of signs by inappropriately anthropomorphizing the problematic. If the original Latin notion of sign as taken up again by Peirce (see Beuchot and Deely 1995) is anywhere near right, then semiology is less a proposal for a general study of signs than it is a Procrustean Bed for such a study.

Peirce, we think,⁹⁴ latched on to the idea of semiotic through his reading of Locke's original proposal, and he fleshed it out with all the knowledge at his disposal in accord

93. Cf. Santaella-Braga 1994.

94. It is actually difficult or impossible to actually prove this, as I discovered in doing the research on the formations and origins of "semiotics" as an English word (Deely 2003a).

with an "Ethics of Terminology" which he was the first to thematically formulate.⁹⁵ Saussure arrived at his proposal for semiology independently, and he bound it fast to his conception of the linguistic sign or, more broadly, the sign as *arbitrary* in contrast to any Greek σημεῖον. Still, it is not without interest that these two thinkers so disparate took up at almost the same time the idea for a general science of sign, even though their conception of the project was so incommensurable. Saussure's proposal was an immediate success, and swept Europe. Paris lent its prestige to the notion, and the English literary outlets followed suit. Peirce's attempt to implement Locke's proposal met with no such immediate success. Yet the last twenty-five or so years have seen a gradual reversal in the dominance of the two terms "semiotics" and "semiology".⁹⁶

In the popular consciousness of many, as even among some researchers today, the two terms "semiotics" and "semiology" are deemed rough synonyms; but, as we have seen, this is anything but the case. Indeed, Sebeok's harsh denunciation of Hawkes' attempt⁹⁷ to equate semiotics with structuralism applies no less to every assumption of a synonymy of terms between "semiotics" and "semiology":⁹⁸ "Nothing could be a more deluded misconception of the facts of the matter." Saussure's programmatic statement laid out too narrow a foundation for the project it proposed. Saussure's proposal belonged definitively to the twilight of the epistemological paradigm of classical modern philosophy.

By contrast, by effectively resuming at a new level the work of the Latins synthesized in Poinset's epochal *Tractatus de Signis*, which anticipated Locke's envisioned transcendence through a *doctrina signorum* of the opposition between natural and cultural being (between *Naturs-und Geisteswissenschaften*; or between "realism" and "idealism" in philosophy), Peirce's implementation of Locke's proposal transcended the divide between modern and medieval, even as the sign itself transcends the divide between nature and culture.⁹⁹ Semiotics does not fit the modern paradigm. It rejects that

95. I have reproduced Peirce's "Ethics of Terminology" as an Appendix to Deely 1994: 173–174.

96. See Sebeok 1971, and "Pars Pro Toto" in Deely, Williams, and Kruse 1986: vii–xvii.

97. Hawkes 1977: 124.

98. Sebeok 1984b: 1.

99. Poinset 1632: Book I, Question 1, 117/24–118/18: "What a relation is according to the way being must be expressed in discourse and according to the way it has being, what a transcendental relation is and what a categorial relation is, has been explained in Articles 1 and 2 of our Second Preamble concerning Relation. And we speak here of ontological relation—of relation according to the way it has being—not of categorial relation, because we are discussing the sign in general, as it includes equally the natural and the social sign, in which general discussion even the signs which are mental artifacts—namely, stipulated signs as such—are involved. And for this reason, the rationale common to signs cannot be that of a categorial being, nor a categorial relation, although it could be an ontological relation, according to the point made by St. Thomas in the *Summa theologiae*, I, q. 28, art. 1, and explained in our Preamble on Relation—to wit, that only in the case of these things which exist toward another is found some mind-independent relation and some mind-dependent relation, which latter relation plainly is not categorial, but is called a relation according

paradigm in its initial insight into the being proper to signs, at the same time that it captures again the heritage which was definitively rejected by modern philosophy as claiming the impossible, namely, the possibility of a knowledge of natural phenomena in their proper being from within human experience. Semiology is ultramodern, but semiotics is postmodern from the start.

Yet if we look on Saussure's idea for semiology not as a project rival to semiotics but, more modestly, as a partial contribution from within the limits of a modern epistemology to a broader project which, precisely, transcends those specific limits, then it may be said that Saussure contributes to semiotics a deepened understanding of the species-specifically human linguistic system (the foundational species-specific component of anthroposemiosis), even though he fails to bring this understanding under the rubric of a general theory of signs as he hoped might be possible. For achievement of the hoped-for possibility, it turns out, a larger and deeper understanding of the sign proves necessary than semiology can allow while remaining itself. Saussure's proved an abortive proposal, yet it helped create the climate and interest in which the deeper and fuller problematic of semiotic could take hold in the contemporary intellectual consciousness. How linguistics as Saussure conceived it will finally be assimilated to that problematic remains to be seen, but it will certainly not be in the way that Saussure or any of the principal semiological authors so far have envisioned. As Sebeok best forewarned,¹⁰⁰ "the speciousness of this and associated historical deformations are due to our own inertia in having hitherto neglected the serious exploration of our true lineage." As the Hispanic contributions to semiotic consciousness in the closing centuries of the Latin Age come more and more to light, this inertia of which Sebeok speaks is being overcome.

to the way relation has being (an ontological relation), because it is purely a relation and does not import anything absolute." See the extended discussions at 141/12–142/13. And for a general gloss of the main point (that the sign transcends any division of being into *ens reale* and *ens rationis*), see Deely 1977.

100. Sebeok 1984b: 1.

PROSPECT: A NEW BEGINNING FOR THE SCIENCES

Let us end this time not on an historical note, but on a prophetic one. Let us try to say something definite about the future. We saw in Chapter 5 that semiotics provides a matrix or framework for all the sciences, and we saw in Chapter 7 how, in retrospect, we must now rectify the principal names used in discussing today the doctrine of signs. But what about the prospect? What may we expect to achieve by such rectification and by the explicit development of such a matrix? I think nothing less than a new beginning for the "sciences" both natural and social, that is to say, for our understanding of human knowledge in its entire compass. Taking account of all that has been said to this point, both theoretical and historical, let me try to provide in outline, at least, a prospective synthesis of an overall direction indicated for the further development of semiotic consciousness.

We may quibble with the details, even with the essential details, of Ferdinand de Saussure's notion of *langue*, but we are bound at the same time to acknowledge him (and this is no mean contribution to semiotic consciousness) as the first successfully to demonstrate the thoroughly relational character of language and its existence purely as a system of signs which cohere only thanks to their external connections with the other signs maintained by *langue* and brought into play through *parole*. Such signs, when employed in discourse, inevitably shape the consciousness of those animals able to grasp the intrinsically unmotivated or "arbitrary" connections between the audial or scriptal sign-vehicles and the information those vehicles manage to convey through correlation.

From a semiotic point of view, as stated in the last chapter, our main quibble concerns the triadic character which must be taken account of in order to explain how this arbitrary connection of *signifiant/signifié* is able to succeed as a sign. And, within

such a point of view, we are bound to have a further terminological quibble over the choice of the term “*signifié*” to designate the conceptual component of the semiotic triad in which the *signifiant*, or *sign-vehicle*, forms one of the three terms interchangeable in the course of semiosis. Let us take a careful look at this terminological subquibble, for it points the way to the manner in which semiotics imposes upon our notion of science the opportunity of a new beginning.

1. Signifié as Object Signified

What Saussure called the *signifié* can hardly be translated otherwise than as “signified”. Yet when a speaker utters a word, whether in a restaurant in order to signify what he wants to eat or in some other discourse to signify that about which he wishes to be understood as speaking, the “signified”, though it can be such (as in psychoanalysis or in various phases of psychological analyses), is seldom a psychological reality as such. More usually it is some other than psychological object to which the psychological reality of the “passions of the soul”, the “concepts”, are themselves related. This object may or may not have, as such, a physical instantiation. The true *signifié* is, in every case, some object of awareness or apprehension to which the speaker wishes the hearers attention to be directed. As such, the object exists neither in the mind of the speaker nor in the mind of the hearer, but simply as that to which both minds have their attention directed to the extent that the communication is successful.

Of course, Saussure also uses the ancient term “concept” as a kind of pretechnical equivalent for the *signifié*. But this proposed synonymy depends for its acceptance principally on an ignorance of the actual manner in which our principal semiotic precursors of the Latin Age actually used this all-too-familiar term “*conceptus*”. For the concept itself as a psychological reality, the *conceptus subjectivus seu verbum mentis*, is *already* a sign-vehicle of a determinately psychological sort, a “passion of the soul” supporting a relation to an object irreducibly distinct both from this concept and from the mind forming the concept in the manner of an interpretant, i.e., a ground of the relation between sign-vehicle and object-signified. (For this very reason the best later analyses on the point rechristened the “*passio animae*” as a *signum formale*.)

This ground may be transferred to a sound or a mark, indeed, in which case the spoken or written “word” becomes an interpretant for the *signifiant/signifié* relationship. But this case forms now yet another triad in which the interpretant has been externalized and *itself* objectified in relation to the original object, so that it may now serve in its own right as a sign-vehicle in relation to the original *signifié* or object signified.¹ For this

1. Cf. Figure 9 in Deely 1994a: 225.

relation the original sign-vehicle, the concept, now serves rather as interpretant in a new phase of the ongoing process we have come to call, after Peirce, semiosis. And, of course, this shift having been made, the way is open for the original *signifié* or object signified to serve in its turn either as interpretant for the concept/expression connection within the sign relation, or as a sign-vehicle having for its object—its *signifié*—either the vocal or written expression or its conceptual counterpart, and so on, in that spiral of semiosis wherein symbols grow, especially by occupying successively the changing roles of sign vehicle/object/interpretant *ad infinitum*.

We see, then, more or less right away, that as soon as we deviate from Saussures technical model by introducing the triadic relation as constituting the essence of signification in general, and *a-fortiori* of the specific case of linguistic signification, that what is called into question is our use of the term *signifié* which appears now as part and parcel of the notion of *objectivity* and inseparable from use of the term *object*. The situation is more or less the following.

2. Objects and Semiosis

The notion of the sign as transcending the distinction between natural and cultural phenomena was formulated only at the beginning of the Latin Age, for sure in the works of Augustine, but almost certainly in the writings also of other authors whose efforts have been buried in the sands of time. The justification of such a notion, the explanation, that is, of how such a transcendence might be in the first place possible, did not become a thematic focus for many hundreds of years. But once was raised the question of how a sign as such could be indifferent to its origin in nature or in culture, no answer proved possible until a decisive distinction was introduced between the sign as such, consisting in an irreducibly triadic relation, and the sign as a representation, consisting as such not in a triadic or any other kind of relation but rather and simply in some subjective characteristic of a physical individual or being whereby that individual served to ground and found a relationship to something other than itself. That relation, insofar as it involved cognition actual or possible (i.e., insofar as the founding ground proved irreducibly triadic as *apt to guide*² some possible apprehension), would constitute a sign-relation.

The sign as representation, in other words, is not a sign but simply a sign-vehicle or, if we wish to use Peirces excellent terminological suggestion on this point, a *representamen*,³ requiring for its completion yet two other terms, namely, a *significatum* or object signified

2. As interpretant, we will shortly say.

3. See the note on pronunciation of this term in Deely 1992a: 157n.

and an *interpretant*. All three terms are maintained within the irreducibly triadic relation in which the sign itself as such consists in sharp contrast to each and all three of the terms united. These may—any or all of them—have as such a subjective existence as physical, while the existence of the sign as such is never subjective but always suprasubjective, objectifying the *signifié* by linking it at any given moment with a *representamen* and an *interpretant* in the process of semiosis, which has as its essential feature to mediate between the physical environment and the objective world of what exists as signified or actually known (in contrast, we might add, with whatever exists independently of being cognized or known).

This irreducibly triadic element in semiosis is thus no accidental feature which may or may not be present. It is equally present when the *signifié* or object signified is and when it is not as such a physical element of the environment. Take the case of a successful lie, of a scientific mistake, or of the myth in many of its main features. In such cases the object signified has no existence other than the objective one of something signified, that is to say, the object signified precisely lacks as such any physical instantiation. Examples of this sort abound in nature and in culture, to provide us with the sharp exacerbation to the point of disclosure of what is essential to every semiosis as such, of what differentiates semiosis from the physical interactions of brute force and of dyadity in whatever circumstance. Yet if the distinctiveness of semiosis becomes unavoidable when we consider the case of two existing things affected in the course of their existence by what does not exist, nonetheless, if we understand what is distinctive about the action of signs, that distinctiveness remains unmistakable even when the three terms involved in a semeiosis happen also to be all three existent.⁴

3. Semiotics vs. Modernity

What we find is that, as the Latins were the first to introduce the notion of sign as a general term applicable to natural and cultural phenomena alike, so, correspondingly, was there in the nascent Latin semiotic a fragmentary and only implicitly systematic use of the term “objective” consistent with that original general use of the term *signum*. In modern philosophy, which followed rather the “way of ideas” than the “way of signs”⁵ (or the “via semiotica” in Baer’s expression⁶) this implicit usage came to be quite reversed. And this reversed usage, thoroughly established within modernity, stands as one of the

4. See Deely 1990: 23ff., and “How Do Signs Work?” in Deely 1994a: 151–182.

5. See “Transition to the Future: The Way of Signs”, in Deely 1994b: 245–248. Also Deely 1993b.

6. Baer 1992.

engrained obstacles interfering with the contemporary development of a doctrine of signs.⁷

The modern use of “object” and “objective” to designate something existing as a part of physical reality independent of an observer, however, is ultimately incoherent in semiotic terms. Hence the interminable struggle within modern philosophy between “realisms” and “idealisms”, a struggle which continues to confuse and delay semiotic developments. Semiotics in effect compels us to go back to the medieval notion of objective as whatever exists as known, but now to thematize and systematize that usage in light of the discovery that the sign is what every object presupposes. Every object exists as such as one of three terms in a relation of signification, precisely as the specific and typical result of an action of signs, namely, the term signified, the *significatum* or *signifié*, in contrast, on the one hand, to the term representing (the *representamen*), and, on the other hand, to the term (the *interpretant*) grounding the representing/represented relation as one of sign-vehicle to object signified, *signans* to *signatum*.

Viewing the matter in this way, therefore, brings to light at once two very fruitful suggestions. The first is a new definition of sign which brings out the fundamental character of semiotics for any theory of experience and knowledge: a sign is *what every object presupposes*. The second is a useful description, or perhaps we could even say an adequate definition, of semiotics itself as *the study of the possibility of being mistaken*.⁸ This possibility lies at the heart of semiosis as an action of signs in itself indifferent to the physical status of the object signified, even though at the sensory core of perception and understanding, taken precisively and considered as such, it is possible to demonstrate that there are at play sign relations which are necessarily physical as well as objective.

7. Removing this obstacle was part of the essential project of *The Human Use of Signs* (Deely 1994).

8. I say *adequate definition*, in contrast to the two other proposed contemporary definitions worthy of special note. First, the celebrated proposal of Umberto Eco (1976) that semiotics is the study of whatever can be used to lie falls short by being one-sided, since semiotics also studies whatever can be used to tell a truth or, indeed, the difference between a lie and a truth (a shortcoming which Eco himself admitted in the roundtable on the interdisciplinary scope of semiotics which concluded the international conference on “Semiotics as a Bridge between the Humanities and the Sciences” organized by Marcel Danesi at Victoria College of the University of Toronto November 2–5, 1995). Second, the less widely known but equally theatrical definition proposed by Paul Bouissac according to which semiotics is the study of whatever is interesting has the defect of being too broad, but the merit of implying the point that whatever is interesting involves semiosis, which is that from the study of which semiotics properly speaking results; but, owing to the intrinsic indifference of the sign to the reality of its object in any determinate or univocal sense, what semiotics reveals is the possibility of error as always alongside and even intrinsic to the means by which we investigate truth. This is no mean discovery in the history of epistemological enquiries, and should have a salutary effect on the future development of philosophy as it moves beyond the modern obsession with certitude on the one hand and skepticism on the other, the “pillars of Hercules” between which it was perhaps necessary for thought to pass in order to set sail on the vaster ocean of signs which is the proper medium for the community of inquirers for whom future thought is always a check on present thought.

Since, however, sensation never exists prescissively as such, these necessarily physical relations are always incorporated in the intersemiosis of perception and understanding. And, in perception and understanding alike, objective relations are precisely not necessarily physical but capable of redistributing whatever of physical reality enters in to a given objective world according to a plan of apprehension which indeed includes the physical ambience at various points but is by no means reducible to those points of correspondence and contact. The objective world is one within which a species needs not merely to survive, but to thrive according to its kind, which has needs and desires respecting which the preadjacent physical environment is supremely indifferent. The physical surroundings are what they are in any given moment and case, but the objective world is in every case species-specific and unique to every life form.

The species-specific objective world, unique to every biological form and constructed through the action of signs on the basis of biological heritage in interaction with the physical environment, is what has come to be called an *Umwelt* in contemporary semiotics. It is a term applicable to the lifeworld of any animal, including, *a-fortiori*, the human lifeworld. But in the case of anthroposemiosis, in contrast with all the varieties of zoösemiosis found on this planet (and keeping in mind that anthropo-semiosis always occurs in an intersemiosis with the *Umwelt* as an initially zoösemiotic product), it is possible to raise a question which never arises in the *Umwelt* as a purely biological product, namely, the question of what (if anything) might be this or that objective structure of experience apart from our experience of it? This form of questioning is uniquely and distinctively anthroposemiotic, of a piece with the possibility of language in the species-specifically human sense.⁹ Such questioning is the source of morality and science alike, inasmuch as both have their origin in the recognition of a difference between what exists relative to me with my personal preferences, likes, and dislikes, and what exists as other than me with preferences of its own, whether of a merely physical order, in the case of seemingly inanimate objects, or of a psychological order as well, in the case at least of clearly cognitive organisms objectified within our realm of physical interactions.

4. Science as a Modality of Anthroposemiosis

Science begins with the realization that not every element given in experience consists wholly in a relation to ourselves. From that realization arises the effort, seldom rigorously

9. It is highly useful sharply to distinguish this sense of language from "communication" in general (see esp. Sebeok 1986b, 1987 and 1991: 68–82, esp. 70ff.), with which human language has all too normally been confused (with the resultant ill-conceived experiments on so-called "animal language" so usefully unmasked in the work of the Sebeoks (esp. Sebeok 1979a; Sebeok and Rosenthal 1981; Umiker-Sebeok and Sebeok 1979–1982).

sustained, it is true, but always possibly so, to exercise over objectification a critical control, precisely in the effort and hope of isolating the comparative contributions of physical nature, biological nature, culture, and wishful thinking in the constitution of experience and of the objective world.¹⁰ Thus it is from within an objective world, an *Umwelt*, that science as a distinctive type of inquiry perforce takes rise, always along with and in risk of subordination to those more typically zöosemiotic investigations of a practical nature which serve the needs of survival in the provision of nourishment and offspring.

In the beginning, science appeared to be simply an inquiry into things—into the elements of the surrounding physical environment which are what they are prior to and independently of our inquiry into them. But this was a kind of presemiotic notion of science, which failed to distinguish adequately between objects and things by confusing things with objects, whereas in principle objects are not reducible to things even in those cases where objects and things coincide in sensation and, to a more limited extent, in perception, and, least of all as a matter of principle, in understanding. For whatever is objective consists as such on the basis and (especially) at the terminus of a relation to a cognitive organism as habitually or actually exercising cognition. This is typically not the case with whatever exists physically as such, including the subjective phenomena of psychology which serve to found the objective relations of apprehension and affection (those “passions of the soul”¹¹ which the later Latins classed as *signa formalia*): these so-called psychological phenomena, even when they may require an actual exercise of cognition in order to exist, yet do not presuppose being themselves *objectified* in order to exist.

The objective as such thus appears as a unique and irreducible category within experience to which all phenomena, whether natural or cultural or whatever admixture, belong. The objective is whatever exists as experienced or known in any way, regardless of what further existence a given objective element may or may not have outside of or apart from the experience in which it exists objectively. Objects are never first of all things. They are first of all intersections of relations which have no existence as such (i.e., as objectified) apart from the network of relations which sustain them and which constitute experience as such in its irreducibility as the source of what Toews (1987) has called “the autonomy of meaning”.

Of course, this autonomy, like meaning itself, is relative rather than absolute, in the quite literal sense of consisting in a network of relations which invisibly sustain the world of objects as such in their cognized being.¹² Further networks of relations, which may

10. To keep the fact that, as Baer so well put it (1977), “things are stories” from getting wholly out of hand.

11. See Gannon 1991: 32–33.

12. The pioneering work on this point of Hjelmslev (1961: 22–23), cited in note 25 above, remains fundamental for semiotics and needs to be recalled here. See the discussion of “Objective Constitution” in Deely 1994a: 216–222.

or may not become objectified, or may pass in and out of objectification,¹³ are likewise needed to sustain whatever else of being objects may have over and above—or under and below—their existence as objects. But the discovery of the priority of relation over substance in the constitution of experience and in the presentation of objects nowhere achieves a thematic clarity equal to that which it receives in semiotics. This clarity obtains simply as a consequence of the appreciation of the role of the sign as presupposed to the existence of experience in its own right and to the presentation of objects of whatever kind as sustained in every case by the triadic action of signs which weaves the web of relationships in which experience and objectivity properly and precisely consist.

5. Objects Presupposing Signs

Once it is realized that signs constitute the objective world, and that this world is initially a zoösemiotic sphere of experience created by mind for the convenience and well-being of the biological lifeform of which it is a manifestation, the way is open for science to develop as a species-specifically unique type of inquiry, namely, that inquiry which seeks to evaluate the various bases—physical nature, biological nature, psychological phenomena, cultural creations—upon which the various relations constituting objectivity rest. But essential to the enterprise of science not mistaking its own nature as a modality of anthroposemiosis¹⁴ is the further realization—and this is precisely where semiotics comes in—that the world of objects is first and last a network of signs.

The network as such, consisting of relations, cannot be seen with the eye, felt with the fingers, or tasted with the tongue. It has no odor, no “sense quality” by which it might be accessed directly in sensation or, for that matter, in perception. What can be sensed and perceived are related objects, patterns of objectivity as containing sensory elements; but the relations themselves through and by which these patterns exist and are given objectively elude any direct grasp. They can be directly understood, by contrast with what constitutes a sensible individual object, as the intersubjective vs. the subjective. But this is not an action of perception as such but of intellectual interpretation which goes beyond the sensory relative to me to the question of what the sensory presupposes in order to be what it is in experience and in the constitution of the objects of experience.

A semiosis that goes beyond perception is precisely what we mean by anthroposemiosis.¹⁵ It has few guarantees. Even more than perception, which, through sensation, is at least always necessarily tied to something of the physical ambience,

13. For history forgets as well as remembers, and some things have more than once to be learned.

14. Erstwhile called “philosophy of science”.

15. See the extended expositions in Deely 1993a, 1994, and 1995a.

intellection is open to the possibility of mistaking objectivities of its own creation for objectivities which reveal the physical world as it would exist without us. The history of religions is perhaps the clearest, but by no means the only, witness to such deceptions.

What is of interest to us, however, is not the possibility of error or even its likelihood in any given case, but the discovery of the reason for its possibility, which is the indifference of the sign-vehicle to the foundation of its relation to an object signified as existing also in nature or only in thought.

We see then that the traditional general division of science into "natural" and "social" or "human" (*Naturwissenschaften vs. Geisteswissenschaften*), as well as the specific divisions within one or the other of these classes, already presupposes a recognition of a difference within the objective world between aspects of experience which have an internal physical coherence apart from the world of social and cultural relations and aspects of experience whose entire coherence is the work of social interaction and the intentions of mind. Such a recognition is an extension of the experience of the contrast between signs which exhibit in their objective representation grounds for holding that they have roots in the physical environment in its aspect of indifference to our interests and concerns (such as smoke taken as a sign of burning), and signs which exhibit in their objective representation grounds for holding rather that they have no roots in the physical environment except through the medium of our interests and concerns (such as a flag taken as a sign of a certain country). It is not the use of signs that gives rise to science, but the capacity for *grasping the difference* between signs and objects signified.

Thus experience at any level presupposes that there be signs, but need not know this presupposition; science presupposes not only that there be signs but that we know that there *are* signs and that they are different from objects. The further realization that in their difference from objects signs are not some subclass of objects but that which every object of experience presupposes is not a presupposition but an achievement of science, that achievement with which the inauguration of a thematically semiotic consciousness begins. Such an inauguration is a new beginning for the whole of human knowledge, as well as of science as a part of human knowledge; for it uncovers a situation more fundamental than any attempted opposition between the "sciences" and the "humanities", inasmuch as the role and action of signs within experience and nature is what turns out to be, as providing the structure of experience, the final foundation and measure for the whole edifice of knowledge in whatever of its parts.

The main point here, which I tried to make also in Chapter 5 above, is that semiotics pertains to a renewal of the foundations of our understanding of knowledge and experience across the board, and hence to a transformation of the disciplinary superstructures culturally distributing that understanding (the traditional disciplines as

currently founded).¹⁶ It is a question of new foundations for the “sciences” in the ancient sense of the whole panoply of disciplinarily diversified human knowledge—be the object of the diversity “human”, “natural”, or “social” (in the current description). To repeat again the point of Chapter 5, semiotics is a perspective concerned with the matrix of all the disciplines, precisely as they are offsprings within experience of anthroposemiosis.

To see “imperialism” here is a complete misunderstanding, especially since it is more a question of *recovering from* the imperialism of positivism which accorded credence only to the natural sciences, and this on the basis of a fundamental misunderstanding of the semiotic constitution of their objects. It is a question of seeing the subsets of semiosis within anthroposemiosis for what they are in relation to the whole. Among the sciences as they have been traditionally constituted prior to the contemporary establishment of the semiotic point of view, semiotics is thus unique in being a study concerned with the matrix of all the sciences, and in revealing the centrality of history to the enterprise of understanding in its totality.¹⁷ This centrality of history is revealed through the codes of culture that alone sustain, as a relational network beyond the individual insight, the *commens* or shared mentality¹⁸ that defines a language (such as English or French), a discipline (such as physics or literary criticism), a subculture (such as Gays or Fundamentalists), a nation (such as Israel or France), and, ultimately, civilization itself in all its conflicting strands of historically embedded interpretations giving structure to the everyday experience of the conspecifics capable of language.

6. Conclusion

Semiotics is, in the end, something more than a new beginning merely for the sciences. The establishment within human culture for the first time of a systematically semiotic consciousness can be said to mark a new epoch of philosophical history generally, an epoch which separates classical modernity with its presemiotic epistemological paradigms from what is to come after—beginning now. Somewhat to the horror of those who thought they had successfully co-opted the notion of “postmodernity” for a sheer play of irrational impulses, as I discovered in 1984,¹⁹ it remains that semiotics constitutes the transdisciplinary framework which makes the idea of a post-modern development

16. Semiotics also pertains to the renewal of any single currently established discipline within, say, the humanities including logic itself (Deely 1990, 1992), but only by way of achieving a proper understanding of semiosis itself in some particular.

17. The pioneering work on reshaping the traditional discipline of history from a semiotic point of view has been done by Williams 1982–1988, Williams and Pencak 1991, and Pencak 1993.

18. Peirce 1906: 196–197.

19. Deely 1984, fully amplified in 1994a.

intelligible, in just the way that modern thought provided the framework which made the idea of a post-mediaeval and post-renaissance development intelligible. In addition, the development within semiotics of the foundational doctrine of signs²⁰ already points out the direction—by way of contrast alike to the idealism of typically modern thought and to the realism of typically pre-modern thought—in which this post-modern development promises to reach its mature and fully recognizable form.

The new beginning for the sciences that semiotics enables is also the opening of a new chapter in the history of ideas.

20. A notion in contrast to “theory” and “science” alike, as Sebeok first noted (1976: ix) and I have myself more fully spelled out (Deely 1982b, 1986b). The fundamental doctrine, or possibility for such as a unified development, was outlined, it should be mentioned, first by John Poinset (1632), named by John Locke (1690), and undertaken full-scale only by Peirce (1867 and after) in our own day.

THE QUASI-ERROR OF THE EXTERNAL WORLD

1. Betwixt and Between

There is a story according to which Professor Sebeok was on a panel of distinguished speakers who received from the audience a challenge to show cause why the basic ideas of semiotics, such as that of Umwelt, were not simply one more version of solipsistic idealism. Each of the speakers in turn addressed the matter, each beginning with a protestation (outdoing in earnestness the previous speaker) to the effect that, "Of course, I am not a solipsist". Finally, Tom's turn arrived. He shrugged, and said simply: "I'm a solipsist". It was one of those seminal moments, of which Tom created so many, like the time in Toronto where he mentioned in passing in his main remarks that "Everyone thinks of language in terms of communication. But language has nothing to do with communication." In the question period, the very first question challenged him on the point. "You said that language has nothing to do with communication," the audience member reminded him. "Why did you say that?" "Because it doesn't", Tom answered pointedly,¹ and proceeded to call on the next questioner.

1. Later (1995: 70) he would say, in the form of a summary maxim, as from a medicine man to the tribal elders, "Resist the temptation to jumble three incommensurate semiotic practices and their corresponding appellations: *communication, language, and speech.*"

2. The Egg of Postmodernity

It was fascinating, to borrow Tom's own description of a former instance of the type of event in question,² "to note a clue *in nuce*, lurking" in these calculated rhetorical outrages; but even more fascinating was it to watch these clues unfold into full-blown theoretical insights over the following months and years, floating like water lilies on seas of detail.

Now Tom Sebeok was a man of details. Even though he never assumed for himself the mantle of philosopher, as the twenty-first century advances, it will prove difficult, if not impossible, for professors and students of philosophy to maintain ignorance of his name. Mayhap no single man of the twentieth century, save perhaps Peirce himself (though in quite a different and less collegial fashion!), had as shaping an influence on the intellectual culture and climate of what is destined, in my opinion, to be called with a positive sense the "postmodern era".

For "postmodern" has a very different meaning as it bears on philosophy than has heretofore generally been suspected. For example, Karol Wojtyła recently³ noted that the term "postmodernity" as it began to find currency in the late twentieth century was first used with reference to aesthetic, social and technological phenomena. The term was then transposed into the philosophical field, but has remained somewhat ambiguous, mainly because "there is as yet no consensus on the delicate question of the demarcation of the different historical periods". Interesting pretensions to the contrary notwithstanding,⁴ in the end, the consequence that "postmodern" supersedes "modern" is unavoidable.

Well, "the delicate question of the demarcation of the different historical periods". I make bold to say, has been recently addressed at length. Modernity, in philosophy, means that period, beginning with the *Meditations* of Descartes, which came to assume in its mainstream development that the products of the mind's own workings provide

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2. Sebeok 2000: 143. He was referring to the 1969 oral presentation of Langer 1971, in which he saw a glimmer of his later distinction between language as component of the species-specifically human modeling system and its exaptation to create linguistic communication.
 3. Wojtyła 1998: 91. "A quibusdam subtilioribus auctoribus aetas nostra uti tempus «post-modernum» est designata. Vocabulum istud, saepius quidem adhibitum de rebus inter se dissidentibus, indicat emergentem quandam elementorum novorum summam quae sua amplitudine et efficacitate graves manentesque perficere potuerunt mutationes. Ita verbum idem primum omnium adhibitum est de notionibus ordinis aesthetici et socialis et technologicici. In provinciam deinde philosophiae est translatum, at certa semper ambiguitate signatum, tum quia iudicium de iis quae uti «post-moderna» appellantur nunc affirmans nunc negans esse potest, tum quia nulla est consensio in perdifficili quaestione de variorum aetatum historicarum terminis. Verumtamen unum illud extra omnem dubitationem invenitur: rationes et cogitationes quae ad spatium post-modernum referuntur congruam merentur ponderationem."
 4. Lyotard 1984: 79. "A work can become modern only if it is first postmodern. Postmodernism thus understood is not modernism at its end but in the nascent state, and this state is constant." How nice to realize that modernity, after all, is an eternal condition.

alone the direct objects of experience on the side of consciousness.⁵ Locke shared this supposition with Descartes, and Kant did not challenge it, even though he introduced into the notion of consciousness a structure of relationality which considerably distanced him from his modern forebears, but nonetheless without overturning the essential tenet of idealism: what the mind knows the mind makes.

Now there is hardly room for doubt at this juncture of history that human consciousness structures human experience of objects, and perhaps even that the main contours of what we experience is a product more of our thinking and socio-cultural conventions than of any input from a "nature" recognized as such that is operative within our experience as well as prior to, and independently of, that experience. "Reality" for the traveler today, is less a matter of undiscovered lands and seas than a matter of correct papers of identification and negotiation of officials at travel and custom points along the various frontiers. These boundaries, moreover, themselves depend upon diverse traditions, so that the boundaries of nations today are not those of a thousand years ago, nor of a thousand years hence. Even the Pope of Roman Catholicism, an icon of a spiritual reality transcending humanity, for many centuries now, is chosen by election among "Cardinals". Yet no one doubts that cardinals are wholly a creation of human tradition within that Church, no different as objective realities than the Electors in the Electoral College of the United States, or the former Electors of the erstwhile "Holy Roman Empire".

So the objective world of human experience is at best a mixture of nature and culture, but a mixture in which the predominant formal patterns come more from culture than from nature. These formal patterns from culture underlie the presentation to us of objects directly experienced. The situation in this regard in fact was no different for the ancients or medievals; but they had not awakened to the fact. Who are our relatives? It depends on what kinship system is regnant in the culture in which we are raised. What is our religion? Allowing for individual exceptions, again the answer depends mainly on the historical circumstances into which we are born and raised.

The moderns, awakening to all this, had good reason to see in the objects experienced creations of the mind's own workings. Even science might be reduced to the same: such was the Kantian experiment, undertaken from the impetus of Hume's discourses maintaining nothing more to experience than customary associations among objects. If all thoughts reflect mere habits, and all objects cannot be known to be anything other or more than mental self-representations, whatever suspicions we may have on "common sense" grounds that there is a world independent of us, skepticism is the final warrant of all knowledge. That, to Kant, was unacceptable. He could swallow everything else his modern mainstream forebears taught him, but not skepticism. Their mistake, he saw, was

5. See Deely 2001: Chapters 11–14.

in reducing knowledge to subjectivity—that is to say, their mistake was in identifying ideas in the individual mind with the objects of direct experience. They have failed to grasp that knowledge is essentially relational in structure, and that relations are over and above the subject. So, ideas in the individual give rise to or “found” cognitive relations to objects. But the *objects* are that at which the relations terminate, not that upon which the relations are founded and whence they provenate. And the manner in which these relations are generated in giving form to objects is according to a pattern in-built, a-priori to, the human mind, not a mere matter of habits of association.

Now, when it comes to the objects of specifically scientific knowledge, according to Kant, we are dealing with a universality and necessity which comes from the mind itself, not some mere habit pattern and customary generalization. Even though the external world remains unknowable in its proper being, still we know *that* it is there; and our manner of thinking it intellectually is not capricious or culturally relative but universal and necessary, the same for all humans. Even though we know only what our representations give us to know, and the representations are wholly of our mind’s own making, still they are made into objects not by association but a-priori, independently of the vagaries of custom and individual experience; and their cognized content is not subjective but objective, that is to say, given at the terminus of relations which our representations only found. The scientific core of human experience, contrary to the animating conviction of scientists themselves, mind you,⁶ but according to the modern philosopher Kant, is prospectively the same for all because the sensory mechanism generating the representations involved in it and the conceptual mechanism organizing relations arising from these representations is the same in all: similar causes result always in similar effects. Such was Kant’s version of the medieval adage, *agens facit simile sibi*.

By this simple expedient Kant thought to have settled the objectivity of knowledge and put skepticism at bay. The scandal of not being able to prove that there is a world external to the human mind had been removed by the proof that indeed there is an unknowable realm to which knowledge cannot extend, and this realm is precisely the external world, known of a certainty to exist as stimulating our representations (in sense intuition) and unknowable in itself (through concepts, which yield knowledge only in correlation with the representations of sensory intuitions but result in yet another realm of unknowables, the noumena, if we try to extend them beyond the boundary of what is represented in intuitions of sense).

Later variants on this Kantian theme would concentrate on the phenomena in our experience of objects, after Husserl. Yet others would concentrate on the language itself in which human representations are mainly systematized, after Frege, Russell, and Wittgenstein. Russell, indeed, emphasized the role of relations in language and (hence)

6. We will have further occasion to expand on this point.

in knowledge. But Kant had already done this; and Russell confessed in the end that he, too, was unable to transcend solipsism:⁷

My own belief is that the distinction between what is mental and what is physical does not lie in any intrinsic character of either, but in the way in which we acquire knowledge of them. ...I should regard all events as physical, but I should regard as *only* physical those which no one knows except by inference.

We are linked to other minds in exactly the same manner by which we are linked to any reality external to ourselves: by inference. Directly we experience only what is in ourselves. Such was modernity when Sebeok came along. Such was modernity when he left it:

3. The Egg Hatches

This conundrum, this Gordian knot of "external reality", with which modernity had paralyzed the philosophers was precisely what Sebeok unraveled. Faced with the dilemma, he found the way out:⁸

What is one to make of all this? It seems to me that, at the very least for us, workers in a zoosemiotic context, there is only one way to get through this thicket, and that is to adhere strictly to Jakob von Uexküll's comprehensive theses about signs.

Of course, Sebeok is speaking here about *Umweltstheorie*, nothing less, to which nothing is more central than Sebeok's own distinction between language in the root sense (that aspect of the human modeling system or *Innenwelt* that is underdetermined biologically and as such species-specific to us) and the exaptation of language to communicate (resulting in linguistic communication as, again, a species-specifically human *moyen*). The mistake of the cultural relativists of whatever stripe, and of the moderns in general, from Sebeok's point of view, was to treat of language as an autonomous system all-encompassing, instead of to realize its zoosemiotic context.⁹ In this context "the uniqueness of man" stands out only insofar as it is sustained by and depends upon commonalities of signifying that define and constitute the larger realm of living things within which human beings are perforce incorporated and bound up

7. Russell 1959: 254.

8. Sebeok 2001: 78, and 193n6.

9. Deely 1980.

by a thousand million lines of relationships which the very understanding of human life must ultimately bring to some conscious incorporation. In other words, Sebeok's final contribution, from within modernity, was to realize that there was a way beyond modernity, the Way of Signs.

The question in this form never interested him, but in the wake of his work it is worth asking: what would postmodernity have to be? It could only be a view of the world which somehow managed to restore what is external to ourselves as knowable in its own or proper being without letting go of or denying the modern realization that much if not most of what we directly know reduces to our own customs and conventions according to which objects are structured and inferences made. Now Sebeok may indeed have been thoroughly modern. But no one did more than he did to ensure that the modern era, at least in intellectual culture and in the philosophy of which he never claimed to assume the mantle, was over. Sebeok became, in spite of himself, postmodern to the core.

I say "in spite of himself", for I know he had an aversion to the designation "postmodern", for a very good reason. The greater part of Sebeok's professional life had been devoted to exposing and overcoming what has come to be known as the "*pars pro toto* fallacy",¹⁰ according to which the doctrine of sign finds its adequate foundation on a linguistic, not to say verbal, paradigm. Such was the thesis, concretely, of Saussure's proposal for "semiology". By contrast, Sebeok promoted from the first that the doctrine of signs must be rooted directly in a study of the action of signs, the distinctive manner in which signs work, for which action he accepted from Peirce the name "semiosis". But if the doctrine of signs concerns first of all the action revelative of the distinctive being of signs, then the proper proposal for its development is not the term "semiology" but rather the term "semiotics", which expresses the ideal of a paradigm not language-bound but refers to the action of signs as larger than, surrounding, and indeed presupposed to the action of signs as verbal. "Semiosis", Sebeok said early on,¹¹ "is a pervasive fact of nature as well as of culture". Semiology he always saw as having a legitimate place within semiotics, the glottocentric part of the larger enterprise, as he put it, but impossible to be the whole.¹²

You can see that Sebeok from the first, without at all thinking of the matter in these terms, set the semiotic enterprise beyond the philosophical boundaries of modernity. His was a postmodern enterprise, from the philosophical point of view, right from the start, however gradually has this fact come into the light. Two things conspired to make it difficult for him (as for us around him) to recognize this. The first was that, by his own

10. "Pars Pro Toto", Preface to Deely, Williams, and Kruse 1986: viii–xvii; also in Deely 1986.

11. Sebeok 1977: 183.

12. E.g., see the "Introduction" to Sebeok 2001: esp. xix–xxiii. It was always an irritant to Sebeok that Greimas, a glottocentrician if ever there was one, claimed for his portentously-named "Paris School" the designation "semiotics" rather than the far more apt title of a school of "semiology".

profession (what turned out to be to his great advantage), he had not made his fort  philosophy. The boundary of modernity as a philosophical epoch had not yet been clearly drawn in the days when Sebeok set out along the Way of Signs, even though Sebeok's own works within linguistics, anthropology, and folklore, as well as later in semiotics, were pushing intellectual culture in the direction of a becoming conscious of just that boundary. The second, much more immediate reason was that, within the larger orbit of semiotics, a group of thinkers vaguely semiological, certainly glottocentric, with Jacques Derrida at their center, had clustered in the consciousness of popular culture around the label "postmodern". The general intellectual thrust of this group, besides being "abjectly based on the *pars pro toto* fallacy", was, to Sebeok's intellectual sensibilities (not to put too fine a face on it), abhorrent. Viewing this development within semiotics and popular culture more generally, Sebeok once confided to me that he deemed the appellation "postmodern" as "so hopeless as better never to be used".¹³

Yet the term has a logic of its own. Since that which every object as experienced ("real" as the sun or "unreal" as the witches of Salem) presupposes is the action of signs, the way out of the closet of modernity's solipsism is not by going back to a simple ancient or medieval realism but rather by going forward into a brave new world. *Faute de mieux* the new world will be *postmodern*. Sebeok's objection to those already identified with the label "postmodern" in end-of-the-twentieth-century popular intellectual culture was their abject manipulation of the glottocentric model, their wholesale debasement of the possibilities proper to semiology as a normal part within the larger doctrine of signs. It did not occur naturally to Sebeok that this situation was not by any means "postmodern" in any philosophical sense. In a philosophical sense, the situation in question was rather *ultramodern*, the simple carrying to the extreme of the modern proposition that the mind knows only what the mind makes. The "postmoderns falsely so called" were not postmodern at all: they were philosophical modernity extended to the extreme that Kant had essayed to forestall: swamping science itself in a linguistic tangle of terminally clever solipsistic relativism.

If modern philosophy depends upon an epistemological paradigm which knows no path beyond the representative contents of consciousness, while epistemology constitutes for semiotics no more than its "midmost target",¹⁴ the reason is that study of the action of signs finds precisely a path beyond the representative contents of consciousness.¹⁵ These contents are not self-representations (objects) but, precisely, themselves signs (other-representations)¹⁶ rooted in the being of relations which transcend the division

13. Conversation c.1984.

14. Sebeok 1991b: 2.

15. "Renvoi", as has been said: Deely 1993 and 2001a: 721–22, after Jakobson 1974.

16. The point is fundamental: cf. Poinsoot 1632a: 117/12–17.

between nature and culture and so cannot be confined to either side of any such divide, real or imagined. The “central preoccupation” of semiotics may be, à la modernity, “an illimitable array of concordant illusions”, Sebeok reported to the Semiotic Society of America in his Presidential Address of 1984,¹⁷ but “its main mission” is “to mediate between reality and illusion”. Petrilli and Ponzio, in their recent study of Sebeok’s work¹⁸ (which had something of his endorsement) capture the postmodern essence of the way of signs as Sebeok envisioned it exactly: “there is no doubt that the inner human world, with great effort and serious study, may reach an understanding of non-human worlds and of its connection with them.”

4. Skirmishes on the Boundary

When the postmoderns falsely so called entered the fray from the fringes of semiology, just when semiotics was promising to come into its own, Sebeok could not but be dismayed. For Sebeok, insofar as he was modern, belonged to the scientific, not the philosophical, side of modernity. So it needs also to be noted, as mentioned above in passing,¹⁹ that modern intellectual culture became frankly and unreservedly idealistic only on its philosophical side, and this even in spite of itself. Neither Galileo nor Descartes set out to make the external world problematic, still less unknowable. These were rather the consequences ineluctably radiating from the modern starting point which only the philosophers wholeheartedly embraced, to wit, the premiss that we directly know nothing but representations fashioned by the mind under the provocation of stimuli directly unknown. A realistic spirit never wholly died, neither within the popular culture as a residual “common sense”, nor within the scientific enterprise with which modernity thought to replace coenosopic knowledge with a wholly ideoscopic edifice (the “Enlightenment” project), even if only to learn ruefully that, after all, coenoscopy has its irreducible place in the realm of knowledge alongside and in some ways naturally prior to ideoscopy.²⁰ Modern science took its origin not from a repudiation of but in continuity with the ancient and medieval concern with exposing in knowledge the very structures and modalities proper to *ens reale*, the order of things-in-themselves.²¹ Galileo’s social problems arose not from proposing hypotheses about what might be but from proposing a hypothesis about *the way things are*, in the spirit and with the

17. Sebeok 1984a: 77–78.

18. Petrilli and Ponzio 2001: 20.

19. See above at note 6.

20. See Deely 2001: Chapter 11, esp. pp. 489–492.

21. I would direct the reader’s attention to remarks I made on this subject at one of the many conferences organized by Sebeok: Deely 1984: 265–66.

conviction that such was knowable, even if it required new instruments and different means than were developed by or available to the medieval “natural philosophers” and early modern religious authorities.

So the modernity upon the scene of which Sebeok entered and of which he was one of the most noble heirs of its high intellectual culture had a schizophrenic, not to say psychotic, side, for the purpose of understanding which I have proposed we might usefully exapt the story of Dr. Jekyll and Mr. Hyde.²² Fortunately for all of us, Sebeok was a man of thoroughly scientific temper, and while he had respect for philosophy and its conundrums, and even while the sciences in which he immersed himself concerned objects which could be in no wise reduced to the *ens reale* at the heart of the original enterprises of philosophy and science alike, neither was he about to be taken in by a central thesis that served to define little more than philosophy’s distinctively modern mainstream. He was never one for abjectly mistaking some part for the whole, or for respecting the claims of those who transparently did so, such as the ultramoderns, “the postmoderns falsely so called”.

“For us, workers in a zoösemiotic context, there is only one way to get through this thicket.”²³ Realism is not enough. The Way of Things has been tried and found wanting, even if not so completely so as the Way of Ideas proved wanting. For along the way of signs, we find that realism, “scholastic realism”, as Peirce insisted (“or a close approximation to that”²⁴), if insufficient, yet pertains to the essence of the enterprise. The only way to realism in the minimalist sense required (the sense of “scholastic realism” that is, as Peirce correctly termed it) is by a warranting within experience of a distinction not only between signs and objects (the former as presupposed to the latter’s possibility), but further between objects and things. Here “things” refers to a dimension within the experience of the objective world which not merely does not reduce to our experience of it but is further knowable as such within objectivity through the discrimination in particular cases of what marks the difference between *ens reale* and *ens rationis* in the being of objects experienced. In this way (and for this reason),²⁵ the “minimal but sufficient module of distinctive features of +, -, or 0, variously multiplied in advanced zoösemiotic systems” which yet remain wholly perceptual in nature, “is a far cry from the exceedingly complex cosmic models Newton or Einstein in due course bestowed upon humanity”.

22. Deely 2001: Chapter 13.

23. Sebeok 2001: 78, and 193n6.

24. Peirce 1905: CP 5.423. By *scholastic realism* Peirce intends in general a sense of realism sufficiently strong and clear as to prove incompatible with all variants of Nominalism as the denial of relations sometimes obtaining in their proper being as relations independently of the workings of finite mind.

25. Sebeok 1995: 68.

And the only way to a difference between things experienced as objects through their relation to us and things understood, actually or prospectively, as things in themselves prior to or independent of any such cognitive relation is through a modeling system capable of proposing within a given object of experience a difference between aspects of the object given in experience and those same aspects giveable apart from the particular experience. In Sebeok's trenchant terms, the distinction between objects and things depends upon a modeling system, an *Innenwelt*, which has among its biologically determined components a component which is biologically underdetermined, the component Sebeok labels "language". Thanks to language we can model the difference between "appearances" in the objective sense and "reality" in the scholastic sense, and propose experiments to test the model, leading to its extension, refinement, or abandonment, depending upon the particulars of the case.

An Umwelt species-specifically human is not needed in order for the mind to be in contact with reality in this scholastic sense.²⁶ For reality in the scholastic sense need not be envisioned in order to be encountered. The *idea* of reality, we will shortly see, is no less than a representative component of an *Innenwelt* species-specifically human. But the *objective content* of that idea (not, indeed, formally precised as such, but, indeed, "materially" in the scholastic sense²⁷) is part of the Umwelt of every animal. Sebeok liked to quote Jacob on the point:²⁸

No matter how an organism investigates its environment, the perception it gets must necessarily reflect so-called "reality" and, more specifically, those aspects of reality which are directly related to its own behavior. If the image that a bird gets of the insects it needs to feed its progeny does not reflect at least some aspects of reality, then there are no more progeny. If the representation that a monkey builds of the branch it wants to leap to has nothing to do with reality, then there is no more monkey. And if this point did not apply to ourselves, we would not be here to discuss this point.

26. What Peirce calls "scholastic realism", in view of its medieval provenance in the explicit recognition of the contrast between *ens reale* and *ens rationis*, I call "hardcore realism", in view of the continuity of the medieval notion of *ens reale* with the *ou* ("being") of which Aristotle spoke as scholasticism's grandfather. Thus, hardcore realism means that there is a dimension to the universe of being which is indifferent to human thought, belief, and desire, such that, for example, if I believe that the soul survives the destruction of my body and I am wrong, when my body goes so does my soul—or, conversely, if I believe that the death of the body is also the end of my mind or soul and I am wrong, when my body disintegrates my soul lives on, and I will have to take stock accordingly. Or, to give a more historical example, from the time of Aristotle to at least that of Copernicus, all the best evidence, arguments, and opinions of every stripe held that the sun moves relative to the earth, while in hardcore reality, all along, supremely indifferent to these stripes of opinion, it was the earth that moved relative to the sun, and the sun also moved, but not relative to the earth.

27. Cf. Peirce 1632a: "First Preamble on Mind-Dependent Being", Article 3, esp. 66/46–68/34, esp. 68/18–31.

28. Jacob 1982: 56.

5. Reality Too Is a Word

So a *grasp* of reality is not the issue. The issue is much deeper, and surely begins with the realization concerning which Sebeok was fond of citing Niels Bohr:²⁹ “Reality’ is also a word, a word which we must learn to use correctly.” Now, as a word, “reality” has a history, one which, in philosophy at least, leads to the notion of something existing regardless of its status as known. But of course this raises at once the problem: please give an example of something unknown? Well, it is not impossible. What will completely defeat the AIDS virus: that is something just now unknown. The belief that *there* is something, simple or complex, that meets this description is what drives scientific research in the area. When and if it is found the belief will be vindicated, but at that moment this currently “unknown X” will become itself an “object X identified”. So we can say that *if* something believed in is a part of reality in the hardcore or scholastic sense, then that something has the possibility of passing from unknown to known. At that moment, the only difference will be an extrinsic one: a relation to some knower whereby the thing existing in its own right comes now to exist also as an object, as part of a larger objective world, an item, maybe, or process therein.

We see thus exactly that and why “such questions as how concepts are related to reality” are³⁰ “ultimately sterile”. Reality, for the animal, is simply the objective world, the Umwelt. Later on, but only for the human animal, experience will give rise to the *further* consideration that there seems to be more to objects, a dimension within the objective world, that does not reduce to our experience of objects. How to name this irreducible dimension globally, “generically”—that is to say, without having (or being by any means able!) to specify in detail its specific contents (which is a much more difficult task)? Such is the origin of the *idea* of reality within the human Innenwelt. This idea is a sign, a representation of something other than itself that is largely unknown but determinable and to be determined within experience, something that *distinguishes* the way objects exist in relation to me and my perceptual categories of the “to be sought” (+), “to be avoided” (–), and “the safely ignored” (0) *from* what might be true of them apart from such classification. Thus Sebeok sees the fact that “we can approach the ‘real’ richness of the universe only by entertaining multiply contending, mutually complementary visions” as but the “quotidian implication” of Niels Bohr’s celebrated adage that “physics concerns what we can say about nature”.³¹ I see this quotidian implication as an upshot of the fact that we are inevitably workers in a zoösemiotic context rather than disembodied

29. From Kennedy and French Eds. 1985: 302.

30. Sebeok 1992a: 143.

31. According to Pais 1991: 427.

minds. Bohr³² is simply wrong, as Sebeok should have been the first to point out, to further conclude *without qualification* “to think that the task of physics is to find out how nature is” is “wrong”. The qualification needed, of course, is the fallibilist one that we can never find out exhaustively “how nature is”—quite another matter than not finding out at all, and Sebeok’s real point³³ in citing Bohr’s statement in the first place.

“Reality” (in the scholastic, or “hardcore”, sense), thus, is a representation of objectivity that transcends biological heritage, for it is only indirectly tied to my biological type as an organism within a determinate species. Every animal lives in a species-specific objective world, determined from the ground up by its biology. “What is commonly called the ‘external world’”, in this context, we may be forgiven for considering³⁴ as “the brain’s formal structure (*logos*)” under the stimulus the senses convey from the physical surroundings, as this collusion gives rise to the objective world or *Umwelt* in which the animal lives and moves and has its being, “models of purlieus frequented by and appropriate to the survival of each organism and its species.”³⁵ This is true also of the human animal, but the uniformity of the objective world is, so to say, partially ruined at the level of culture by the incorporation of diverse specifications of “reality” generically considered, as we see in the different customs of marriage, family, and religion (particularly in the matter of which texts—if any, the skeptics will say—have “God himself” or “Allah” or “Jahweh”, etc., as their “true author”), not to mention the astronomical controversies which led to the bootless break between medieval coenoscopia and modern ideoscopia. God and the physical environment, thus, are but the polar extremes under the idea of *ens reale* according to which the species-specifically human objective world diversifies itself internally through language exapted in communication.

In other words, the notion of reality is a species-specifically human achievement based on the species-specifically human component of the generically animal modeling system or *Innenwelt* thanks to which, as Sebeok puts it, we are and cannot but be “workers in a zoösemiotic context”; for we are, even as *anthropos*, animals from the outset and to the end of our days. We awaken not to a physical environment of pure *ens reale* but to an objective world which, like that of every animal,³⁶ is a mixture of *ens rationis* and *ens reale* in the presentation and maintenance of objects, the objects we need in order to survive, grow, and flourish. Within these objects what is important is precisely their relation to us, not the “relation to themselves” (itself, note, this “self-relation”, an *ens rationis* without which the notion of “hardcore reality” no less than that of “thing” could

32. *Ibid.*

33. Sebeok 1992: 339.

34. As Sebeok put it, 1992: 57.

35. Sebeok 1995: 67–68, referencing von Uexküll 1920.

36. See again the text of Poinot 1632a: Second Preamble (note 27 above).

not arise³⁷) which an altruist or, mayhap, a scientifically minded inquirer, might want to pursue.

6. A Modeling System Biologically Underdetermined

Here Sebeok would typically reveal his modern side by missing a point which his postmodern “better self” was about to make. “It was Niels Bohr who first emphasized the doctrine that scientists have no concern with ‘reality’; their job has to do with model building.”³⁸ How ironic a point to miss, since reality itself results from a modeling within the human Umwelt, and further modeling (specifically scientific modeling, in fact) aims precisely to clarify the generic intuition in specific ways and circumstances. For, as we have seen, “reality” in its philosophical notion as “hardcore” reality is precisely an achievement, species-specifically human, of modeling, exapted to communicate in the linguistic expression “reality”, concern with which—either preclusively (a largely chimerical goal) or as something to be correlatively distinguished within the objective world from the factors of *ens rationis* and identified as such—is equally at the coenoscopic 7th/8th century BC origins of philosophy and the 16th/17th century AD ideoscopic origins of modern science. The concern of scientists, Sebeok aimed at saying, is with the building and testing of models concerned with distinguishing in verifiable ways what in our experience belongs to the order of *ens reale* and what to the order of *ens rationis*, which would not be a problem were it not for the fact that, within human experience, the elements of both orders, however different “in themselves”, are equally objective strands within the semiotic web that we call culture.

So we come by a devious route to what Sebeok called “the ultimate enigma”:³⁹ the union of nature and culture within human experience, and the dilemma of disentangling the strands of experience within which this unity is given (first as Umwelt, then, in the wake of the awakening to the idea of “reality”, as Lebenswelt, that species-specifically human variant of the generically animal Umwelt insofar as the Umwelt is transformed or modified from within by the components and considerations introduced into the objective horizon of experience by the representative elements formed by language within the Innenwelt and exapted into objective structures of linguistic communication transmogrifying Umwelt to Lebenswelt—all without for a moment suppressing or obviating the “animal roots” of every individual’s world as objective, that is to say, experienced and “known” in the context of society as well as individually).

37. Guagliardo 1993; Deely 1994: Part IV.

38. Sebeok 1986c: 72.

39. Sebeok 1981a: 199.

7. Blickwendung, or a Glance in the Rear-View Mirror

In my private semiosis, these public considerations carry me back to my youth as a student of philosophy in the school my Dominican professors maintained in River Forest Illinois. My first suspicion of the external world as a quasi-error came not from Sebeok, who gave me the expression, but from Kant, who seemed to me to have imposed on understanding the requirements distinctive rather of sense. I remember visiting the room of one of my professors, Ralph Austin Powell, to inquire whether what Kant had to say of "reason" with its a-priori forms was not a fundamental confusion of what could only be true of sense insofar as sense is wholly determined biologically by the type of body we happen to have.

"That's a very interesting idea, Brother", Powell replied. "Why don't you write it up as a paper?" The suggestion may have been a device to get me out of his room, but in any event it was a good suggestion. It primed me years later to appreciate one of history's greatest ironies in the arena of philosophy. Jakob von Uexküll, by his own attestation, was influenced above all by Kant in arriving at and formulating his *Umwelttheorie*. Kant distinguished only between percepts and concepts, the former arising from sense, the latter from understanding. In fact, this conflation of sensation with perception in the production of representations was a fundamental blunder, for no analysis of knowledge can do without the distinction between sensation prescissively considered as such, wherein mental imagery is superfluously assumed, and perception likewise considered, wherein imagery (or "ideas": *species expressae*, as the Latins generically said⁴⁰), proves essential. But on any such distinction, it becomes quickly apparent that concepts belong to perception before they belong to understanding, and do not belong at all to sensation. Thus the proper question in distinguishing understanding from sense concerns not the difference between sensory "percepts" and rational "concepts", but rather the difference between the concepts proper to understanding and the concepts proper to perception in its difference from sensation.

This last difference is precisely that between concepts of objects classified as to be sought, to be avoided, or to be ignored, and concepts of objects classified as belonging primarily to *ens reale* or *ens rationis*. The relation of an object to itself, which underlies, in the species-specifically human originary grasp of being,⁴¹ the recognition of the difference between objects which are only objects and objects which are also things, is itself already an *ens rationis*, but one consisting in a representation which is not wholly biologically determined, and therefore belongs to that aspect of the modeling system which Sebeok labels "language" and which is species-specifically human. Language is

40. See the summary in Poinset 1632a: Book II, Question 2, text and notes.

41. *Ens primum cognitum*, which divides over the course of experience between *ens reale* and *ens rationis*.

not needed for the concepts of perception, and these concepts alone pertain to Jakob von Uexküll's "functional cycle", even as the concepts of understanding alone pertain to scientific as distinguished from artistic understanding.

In arriving at his concept of the *Umwelt*, von Uexküll was already employing his animal modeling system in its species-specifically human dimension, which would not have been possible were the Kantian dyadic contrast between "sense" and "reason" the contrast obtaining "in reality". This is why I have said⁴² that "in a wholly logical world the study of the purely perceptual intelligence of animals would have been rather the inspiration for the jettisoning of Kantianism in the philosophy of mind".

8. Updating the File

The realization that human experience, being animal experience first of all, does not begin simply with *ens reale* but with a world of objects which are normally (at least in historic, if not prehistoric, times) predominantly constituted by *entia rationis* (and include *entia realia* formally recognized as such only as a virtual dimension and indistinctly as to particulars) is not unprecedented in the history of philosophy.⁴³ But the full thematization of this realization is unprecedented,⁴⁴ and may be said to constitute the essence of postmodernity insofar as we are to conceive of it as a distinct philosophical epoch in the wake of the mainstream philosophical development which runs from Descartes in the seventeenth century to Wittgenstein and Husserl in the twentieth century. Heidegger pointed to the need for such a thematization under the classical rubric of "being", but he only got as far as the posing of the question to which semiotics begins the answer.⁴⁵ Why is it, he asked, in terms with an intersemioticity resonant of von Uexküll, that humans experience beings as present-at-hand, rather than ready-to-hand, which is "closer" to us and indeed the way beings are given proximally and for the most part? The answer lies in the difference of an *Umwelt* experienced on the basis of an *Innenwelt* having language as a component in its forming of representations.⁴⁶

42. Deely 2003: Chap. 2 note 9.

43. Aquinas, notably (e.g., c.1268/72: IV. 6), called it *ens primum cognitum* under which experience leads us to distinguish *reale* from *rationis*: see Deely 2001: 350–57.

44. Guagliardo 1994 is one of the very few who have troubled to unearth some precedents in this move toward thematization.

45. Heidegger 1927: 487. The question was part of the transition to the never completed final sections of this great work.

46. The distinction between the ready-to-hand and the present-at-hand is a distinction that does not arise for any animal except an animal with a modeling system capable of representing objects (as such necessarily related to us) according to a being or features not necessarily related to us but obtaining subjectively in the objects themselves (mistakenly or not, according to the particular case)—an animal, in short, capable

The external world is a species specifically human representation. The quasi-error arises from the routine mistaking of objects simply for "things", leading to the confusion of "external reality" (as became the custom within philosophy) with the more fundamental notion of *ens reale*, which is neither identical with "the external world" nor the starting point as such of species-specifically human knowledge, but merely a recognizable dimension experienced within objectivity. The "external world" does not lie beneath or outside of thought and language, as the moderns tended to imagine, but is precisely given, to whatever extent it is given, within objective experience, as semiotics from the first⁴⁷ instructed us. Sebeok liked to quote while constantly reassessing Bohr's asseveration⁴⁸ that "We are suspended in language in such a way that we cannot say what is up and what is down." In my assessment this is an asseveration whose truth and best interpretation depends on the fact that we are linguistic animals and not just perceptual animals, as I have argued pointedly at some length.⁴⁹

As linguistic animals, we can become aware not only of the difference between a thing and an object, between objective world and physical environment as but partially incorporated within objectivity, but we can further become aware of the status of language as a system of signs, and its dependence upon yet other signs in the constitution of objects. It is these objects and their interconnections which go together to form our experience of "reality" (so far like that of any other animal); but within this sphere of objective experience, thanks to language, we can also fashion an *idea* of "reality" establishing an intelligible sense which is not simply given in perception, but is *attained* through sensation *within* perception owing to the difference of sensation from perception.⁵⁰ And

of wondering about things-in-themselves and conducting itself accordingly. Now, since a modeling system so capacitated is, according to Sebeok, what is meant by language in the root sense, whereas the exaptation of such a modeling in action gives rise not to language but to linguistic communication, and since "language" in this derivative sense of linguistic communication is the species-specifically distinctive and dominant modality of communication among humans, we have a difficulty inverse to that of the nonlinguistic animals, although we, unlike they, can overcome the difficulty.

Our difficulty—the source of the quasi-error of the external world, if I may say so—is that within an Umwelt, objects *are* reality so far as the organism is concerned. But without language, the animals have no way to go beyond the objective world as such to inquire into the physical environment in its difference from the objective world. Within a Lebenswelt, by contrast, that is to say, within an Umwelt internally transformed by language, the reality so far as the organism is concerned is confused with and mistaken for the world of things. Objects appear not as mixtures of *entia rationis* with *entia realia*, but simply as "what is", "real being", "a world of things".

47. Using "first" here in the sense of the original treatise which established the unity of signs in the being proper to relation as indifferent to the distinction between *ens reale* and *ens rationis*, namely, the *Tractatus de Signis* of Peirce 1867.
48. From French and Kennedy 1985: 302.
49. Deely 2002.
50. Aquinas liked to say that "things are per se sensible but they have to be made intelligible": it is the perpetual task of human understanding in its difference from sensation and perception alike.

with that idea thus experimentally grounded, perhaps *only* with that idea, we may say, the human animal begins to awaken to its humanness. Our species is drawn by this aboriginal abduction to set out on the long road of philosophy and science, eventually to come across—quite late in the journey, as it happens—that crossroads having the Way of Signs as one of its forks. At that juncture the human animal realizes that, while every animal and perhaps all nature is *semiotic*, the human animal alone is a *semiotic* animal; and in that moment of realization, which few or none have done more than Sebeok to inaugurate, in philosophy at least, postmodern intellectual culture begins—indeed, takes wing. The quasi-error of the external world need no longer beguile or bemuse us, for its nature and origin have been exposed by the very clearing of the opening to the Way of Signs. We see now to have uncovered a path leading “everywhere in nature, including those domains where humans have never set foot,”⁵¹ but to an understanding of which semiotics gives us the means integrally to aspire. Call it the postmodern interpretive horizon, mayhap, the “coincidence of communication with being.”⁵² It is the heart of semiotics, vindicating against modernity the medieval conviction which modern science never wholly abandoned, despite the philosophers: *ens et verum convertuntur*. To be, for nature, is to be intelligible for the animal whose being is to understand.

51. Emmeche 1994: 126; staying silent for the moment on the question over which Sebeok turned conservative, the question of whether semiosis is co-terminus with the emergence of life, or whether there is not indeed a broader origin in which semiosis must be seen as coterminous with the physical universe *tout court*: see Nöth 2001.

52. Petrilli and Ponzio 2001: 54.

HOW SEMIOTICS UNIFIES HUMAN KNOWLEDGE

Deductive logic applied to ideas clearly in mind is hardly the sufficient instrument of philosophy. For history viewed philosophically (which cannot be done when ignorance and narrowness of purview is cultivated in the name of philosophy) proves the very laboratory of philosophical ideas, the one place where long-range consequences of philosophical proposals become unmistakable, as Gilson liked to point out.

"If the question were simply what we do mean by a sign", Peirce noted,¹ "it might soon be resolved." But we are rather in the situation of the zoölogist who wants to know what is sign such that it can function in the way that it impresses us as doing, revealing nature, stitching together culture and nature, real and unreal relations, in weaving the fabric of experience, and leading us down blind alleys and cul-de-sacs as well as broad avenues of being in the forests of human belief. By any standard, the displacement—or thorough remaking at least—of what passes for epistemological theory in philosophy is directly at stake, the "midmost target" of semiotic development, as Sebeok put it,² beyond which lies the ultimate goal of mediating reality and illusion.

As early as the 1st century BC, we know from Philodemus,³ "the most complete and best preserved work which has reached us from antiquity on the subject of sign-inference";⁴ that the notion of natural sign, the σημεῖον, was an epicenter of dispute over the nature of inference between Stoics and Epicureans, and was even before that seen

1. Peirce 1904: 8.332.

2. Sebeok 1991b: 2.

3. Philodemus i.54/40BC.

4. Manetti 2002: 296; see further Manetti 1993, and the *Four Ages* (Deely 2001).

as focal to Aristotle's notion of propositional content.⁵ Augustine expanded the horizon considerably when he brought also language under the rubric of *signum* as transcending the divide between nature and culture. Aquinas, Scotus, Ockham, and the later Latins d'Ailly, Soto, Fonseca, Conimbricenses, Araujo, Poinso, Mastrius, expanded the horizon further still by bringing psychological states under the same rubric, transcending now the distinction between the inner and outer universe, so that already the Conimbricenses could say,⁶ as Peirce would repeat, that all thought is through signs.

But still, whether we speak of psychological states ("ideas and feelings") or sense perceptible phenomena ("natural and conventional occurrences") as "signs", the realization that the sign strictly speaking, in the being proper to and constituting itself as such, consists not in any particular thing—natural or cultural, inner or outer—as vehicle but in the very relation itself triadic and imperceptible (in contrast to the related things) uniting three particulars (two of which need not even exist outside of the in-principle-public sphere of objectivity), as Poinso demonstrated,⁷ was a decisive moment for the theory of knowledge. This realization of the invisible being proper to sign as such, its "soul", so to speak, in contrast to the elements of its embodiment, vindicated (not indeed for the first time, but in an especially unescapable fashion⁸) a long suspicion harbored over the whole history of philosophy that there is a distinction in principle between sense perception, as restricted to grasping related things ("using signs without knowing that there are signs", as Maritain put it), and understanding, the biologically underdetermined modeling system of "language", able to think relations as such in their difference from related terms.

This realization also reveals as a blind alley the many attempts to isolate "signs" as some class or subclass of objects among other objects that can be seen and pointed to. For signs prove to be rather strictly invisible networks of relations which every object presupposes in order to *be* as an object (in order to be, that is to say, as something experienced and apprehended). Far from being reducible to any subjectivity, whether physical or psychological, signs belong rather to the suprasubjectivity whereby subjectivity itself is objectified and made public in communication (intersubjectivity achieved, wherever it occurs) and, in principle if not always in fact, in human understanding.

5. Aristotle c.348/7BC: *Prior Analytics*.

6. Conimbricenses 1607: q. 2. art. 3. sect. 3 (Doyle ed. 2001: 86/87): "Initio illud statuimus nihil ducere in cognitionem alterius, quod in aliquam speciem signi non reducatur"—"At the outset we are stating that there is nothing which leads to the knowledge of something else which may not be reduced to some species of sign".

7. Poinso 1632a: Book I, esp. qq. 1 and 3.

8. Deely 1982; 2001 throughout.

1. Semiotics Embraces Human Knowledge in Its Full Extent

Plato and Aristotle were the first clearly to show that speculative understanding is what most distinguishes the life of the human animal. For such understanding is the only understanding that takes rise from a grasp of the difference between objects, whatever is known precisely in its relation to us the knowers, and things, whatever is known insofar as it involves a being transcendent to whatever relations it may have to us or whatever impressions we have of it. Speculative understanding, Aristotle went on to say, is distinguished by its aiming at knowing what is independently of human thought, feeling, and action; while practical understanding, by contrast, is aimed precisely at what we can do about the things that are, at human control over being so far as such control can be attained by means of human thought and action.

It might seem at first glance that, in this case, animal knowledge as such in contrast to human understanding is entirely practical, but so to think is to fail to grasp the real point of Aristotle's distinction. For just as human understanding consists in an ability to think relations in contrast to related things while perception consists in the construction and grasp of related objects, so knowledge restricted to the grasp of related objects is neither practical strictly speaking nor speculative but simply perceptual. There is not yet so much as a question of a grasp of how things are in themselves, but wholly and solely a question of how things are so far as the perceiving organism is concerned. Such an awareness, zoösemiosis occurring outside of (or within) anthroposemiosis, is *more like* a practical anthroposemiosis than theoretical understanding, but is yet prior to the very distinction between practical and speculative knowledge. For the distinction arises from modeling the difference, real or imagined, between things as they are in our experience and things as they are or might be independently of or prior to such experience; and only in the light of *this difference conceived* can we subsequently speak of a difference between knowledge aimed straight at determining "what is the case" and knowledge aimed rather at "what should be done about things". Zoösemiotic awareness begins and ends in the latter concern, whereas anthroposemiotic awareness, beginning indeed in zoösemiosis, awakens at its own level to the *difference* between what is and what could or should be done, and *thematizes that difference*. Only afterward can we speak about "speculative concerns" as distinctive of anthropos as human, of "understanding" in its difference from perception.

1.1 The Shifting Line between Speculative and Practical

Of course it has near-always been known that what we can and cannot do something about changes over time, such that what is one time purely speculative knowledge becomes at a later time practical. Superficially this awareness has led many to discount

or deny the speculative/practical distinction as purely relative to the condition of human knowledge at a given period of time. But at least as early as Aquinas the error of this way of thinking had been pointed out, from the consideration that however much knowledge may grow, and with it the extension of human control over nature, there remain at the limit matters over which human action can never gain control and such are the matters, at root, that define the speculative realm in its contrast with the practical.⁹ For example, the existence of God: it matters not our opinion in this matter, in that we are correct if we think God does not exist if and only if God does not exist, just as we are correct if we think God exists if and only if God exists (always presupposing the details of this or that conception of "God"). For example, the immortality of the human soul: it matters not our opinion in this matter, in that we are correct in thinking that the soul is capable of surviving the body if and only if the soul as the substantial principle of life has an activity not directly dependent upon and exercised through a bodily organ. It matters not how long we can extend life through medical and technological advances. If the human soul, like the plant soul, is drawn wholly from the potentiality of matter, then, like last year's snow, back into the potentiality of matter it goes when the body corrupts sufficiently no longer to sustain the principle by which it exists as living. For example, it mattered not a whit that Aristotle and the best minds after him thought that the sun revolved about the earth, nor did it matter a whit more that the Inquisition as chosen instrument of an infallible teaching authority endorsed Aristotle's opinion as heaven-sent in the Bible: the fact remained that over all those thousands of years of counter opinions the earth revolved rather around the sun than the sun around the earth.

Of course, there is the plan today in NASA as to how we might move the orbit of the earth a little farther from the sun than presently in order to counter global warming, making what was once a matter of speculative knowledge (the size of earth's orbit) a possibility of practical control. Yet this does not change the basic distinction: for, to borrow Aquinas's trenchant formula, "the speculative intellect becomes practical by extension". That is to say, practical action is well founded only to the extent it is based on

9. Maritain's remarks (1921: 19), beyond the polemical context of their time, still bear consideration: "Practical activity, prudence, the moral virtues... leave man—where they find him—in human life." By contrast, the activity of "the speculative intellectual virtues... transports him into—all but merges him in—the object and thus bears him above the level of human life". We can see in this way, as Sommers (2001) has recently shown for the context of the medieval anti-mendicant controversies, Aquinas saw the highest fulfillment of the human vocation not in the opposition of speculative to practical life but rather in the overflowing of contemplative understanding toward the transformation of the human *Lebenswelt* in the direction of securing the goods of human flourishing for an ever-increasing many (cf. Rasmussen and Den Uyl 1991). Understanding precisely considered is speculative or practical, but cognitive life fully as human performs embraces both, "*utramque comprehendit*". And just this truth is what semiotics brings to the fore within the sciences, both coenoscopic (such as philosophy and theology) and ideoscopic (science in the modern sense).

a grasp of how things are. An illustration should make the point. Since the beginning of the human species, human beings have been sexual animals. Sex is not as old as life, and human beings are not as old as sex, but there have been no human beings, male, female, or hermaphrodite, who were not sexual. Now every human being through the twentieth century at least came into existence through the fertilization of some woman's egg by some man's sperm. At that moment of conception, a genotype was established which (yes, had first to implant, then develop through embryonic stages to birth, childhood and adolescence in order to reach human adulthood, but which) itself remained constant, the underlying biological constant in the life of the human organism until death. Only in the twentieth century, however, did we *come to know* of the reality of genotypes, and only late in the century did we come to know *enough* to envision the possibility of intervening in a genotype to replace or repair such individual genes as we could see would cause phenotypic problems in the organism's development. So the genotype, an object of speculative knowledge, became by extension of that knowledge a matter of practical concern, something about which something might be done. Speculative understanding, by extending itself far enough in the case, had become veritably practical.

So speculative and practical as forms of knowledge are polar opposites, but within human understanding they differ first by the aim understanding takes, as it were (at being—seeing what is; or at doing—seeing what can be accomplished); and within human understanding, though the line dividing the two can never be wholly erased (the point of Aristotle's original distinction between objects of knowledge or aspects of objectivity that can and that cannot be controlled by human action), neither can the line between them be wholly fixed in time (the point of Aquinas' maxim that speculative understanding becomes practical by enabling human control to extend to ever new areas of the universe as understood, the universe of objects). The line between speculative and practical knowledge, then, depends on the state of human understanding at any particular time or set of circumstances in its grasp of the real, particularly insofar as that grasp is sustained and extended (as Peirce put it) not by the individual consciousness but by the individual consciousness insofar as it has become "scientific", that is to say, embedded in a community of inquirers not limited to individuals now living but collaborating across the generations.

In relation to this ancient distinction of practical from speculative within the orbit of distinctively human understanding, semiotics occupies a unique place in the universe of human knowledge; for semiotics provides the only standpoint whence can be seen exactly how and why the boundary in time between the speculative and the practical shifts (even though not the poles themselves, or ultimate terms, of the distinction) from time to time and place to place. In the original awakening of reason from the animal *Umwelt* where objects are the sole and whole reality to a first realization of being in (so to say) its hard-core sense of something which is what it is supremely indifferent to human

beliefs, desires, and opinions, the idea of "reality" was born, the first offspring of the difference between objects and things as given in the course of human experience. This was the central node of the First Age of Understanding, the birth of speculative thought, the awakening of the human animal as human.

1.2 Theology as a Domain of Human Knowledge: Scope and Limits

The Second Age, the age of the sign, the first naissance of semiotic consciousness from Augustine at the beginning to Peirce at the end, had its own epiphany, not in the awareness of being as such so much as in the awareness that human reason cannot escape its own responsibility to account for experience on its own grounds by abdicating that responsibility in favor of a "leap of faith" of whatever confessional color. This was the point Aquinas made in distinguishing *theology*, the confessional use of reason, from *philosophy* (which he did not yet foresee as needing the further fundamental division into and institutionalization as ideoscopic science in its difference from cenoscopic doctrines) as a relatively autonomous sphere both speculative and practical.

The advantage Thomas saw in the theology new to his time was twofold. First, of course, that, according to the times, it drew on God's own understanding of the world (insofar as that might be divined from the texts taken to be revealed, the sacred scriptures), and even from the traditions of human beings insofar as those traditions were true expressions of a right understanding of the divine will for humankind—a tricky business, to say the least. Second, and consequent on this, distancing itself from the imperialism of patristic and Augustinian thought by distinguishing and freeing reason from exclusive subservience to and entanglement with authoritarian interpretations of "sacred texts" in order to allow its development in its own line, both in the speculative order and in the practical order of ethics, politics, and art (exactly what would result, in four more centuries of growth, in the offshoot of ideoscopic knowledge from the cenoscopic trunk of philosophical understanding), the new theology could yet claim for itself the highest place in the organization of human knowledge ("queen of the sciences") by virtue of transcending the distinction between speculative and practical knowledge. For in knowing God as its proper object, theology, albeit confessionally advantaged or disadvantaged by its presuppositions concerning revelation, still attained in the knowing of God a knowledge of all that He makes as God, i.e., as Creator upon whom the totality of finite beings in the particularity of their individualities depends at each moment, the Source of existence of the totality, *Ipsum Esse Subsistens*, "Existence Itself Subsisting", in the formula no less metaphysical than theological by which Aquinas interpreted at once the experience of Moses as recorded in *Exodus* and the experience of every human being that the world of experience is a world of changeable being where what a thing is remains ever at risk of becoming detached, as it were, from the world of actual fact. It was the high

point of the Second Age, wherein “the highest grade of reality was reached by signs” from within human experience.¹⁰

Thus Thomas saw in theology an essential superiority over the highest of the philosophical disciplines so far as philosophy had developed to his day. For the highest of the philosophical sciences—what Aristotle had called simply “first philosophy” or “theology” (natural theology, a knowledge of the universe in relation to the source of its actuality achieved by reason itself through the analysis of the experience of changing being), but what was already called in Aquinas’ day by its later name of “metaphysics”—remained a purely speculative science, in contrast with the new theology, which was speculative in its ground but included the practical order as well within its distinctive province.¹¹

1.3 Science in the Modern Sense

After that came a new awakening of reason, an awakening from within philosophy itself of its difference from quite another and new possibility of human understanding, relatively autonomous not only from the dictates of religious or ecclesiastical authority but also from the dictates of the “common sense” upon which knowledge as cenoscopic centrally and necessarily depends in its development and conveyance. It was the main point or achievement of that Third Age of Understanding, modernity. For who, merely by thinking about it, could have established through discourse alone that massive bodies fall at the same rate as ethereal ones, or that pressure if applied to an enclosed fluid will be transmitted equally in all directions, or that planetary orbits are rather elliptical than circular, and¹² “other propositions, which are not less remarkable, and which capture the understanding, so to speak, against its own will”?

For a few centuries, the rooting of science in the ideoscopic sense seemed to contemporaries to have replaced entirely the need for cenoscopic disciplines, such as had been the traditional sciences in the ancient and medieval sense of speculative philosophy (subdivided into physics, mathematics, and metaphysics) contrasted with the art, politics, and ethics of practical thought. Indeed, at the dawn of modernity, Galileo and Descartes deemed themselves brothers in the common enterprise of

10. E.g., Aquinas c.1266: *Summa theologiae* I. 3. 4. ad 2.

11. Ibid.: I.1.4c: “licet in scientiis philosophicis alia sit speculativa, et alia practica, sacra tamen doctrina comprehendit utramque; sicut et Deus eadem scientia se cognoscit, et ea quae facit” (“although human disciplines of knowledge are either speculative or practical, yet theology embraces both the speculative and the practical: just as God knows by one and the same knowledge himself and the things which he makes”). See the parallel constructed in note 18, p. 225 following.

12. To apply to propositions of ideoscopic science words of Kant (1747: 8) which, taken in their own context, are rather misapplied. See the *Four Ages* (Deely 2001: 555n17).

interpreting nature directly without regard for the traditional texts of the philosophers commenting on Aristotle or other ancients. Yet no one looking back with today's eyes sees in Galileo the future of philosophy, or in Descartes the future of science. Just the opposite. We see in Galileo precisely the beginning of science in the modern sense, leading to Newton, then to Einstein, and beyond; and in Descartes we see the beginning of classically modern philosophy, eschewing in the end the knowability of anything in direct experience beyond the mind's own workings,¹³ the "placing under erasure" of *ens reale* in the Kantian critiques.

In the meantime, while the distinction between philosophical reason as *cenoscopic* and scientific reason as *ideoscopic* was taking root, and before its growth became sufficiently clear as to be admitted on all hands, reason took its autonomy from authoritative texts (in just the sense Aquinas had identified in separating theological reason from reason *tout court*) more and more seriously; not only to establish ideoscopic knowledge—science in the modern sense—more and more fully in its own right but, at the same time, to establish the structures of civil life, the "life of nations" as more and more properly outgrowths of human understanding than imagined as impositions from above of an order of everyday life "divinely revealed" as the will of God, whether according to clerics charged with the mission of mediating the eternal salvation of mortal souls, or according to kings whose legitimacy was asserted to be a matter of "divine right".

As the modern societies came increasingly to depend on the ideoscopic fruits of modern science, the ancient distinction between speculative and practical came less and less well to be understood. The extension of speculative reason wherein it becomes practical came more and more to the fore, as in Francis Bacon's early modern prognostication that "knowledge is power". Philosophers as late as James and Russell in the twentieth century came to believe that science consists in the answers to the questions the philosophers raise, so that a question remains a philosophical question only to the extent that its answer eludes us. As soon as its answer comes into view we pass out of philosophy into the realm of science. This naive view,¹⁴ the quintessence of the Enlightenment in speculative thought, perhaps (if not in the practical order which saw a glorious freeing of human life and intelligence in the direction of realizing the possibilities of individual understanding and individual responsibility), itself now appears incredible.

13. See, in the *Four Ages*, "The Strange Case of Dr. Jekyll and Mr. Hyde" (Deely 2001: 540ff.).

14. This "dream of reason", so quaintly "rediscovered" by Gottlieb (2001) after the fashion of Lyotard's proposed meaning (Lyotard 1984: 79) for postmodernity, ironically mirrors on the part of secular philosophers an older religious view that theology provides the answers to questions philosophy raises. The view is no less fatuous for being secularized. Unfortunately, perhaps, but nonetheless, it is not by returning to its origins that late modernity gives way to postmodernity. It is by coming up against its limits at a time when the understanding finds a way (in the present case, the way of signs) to transcend those limits those very limits theretofore deemed unsurpassable.

as it becomes unmistakable that, just as philosophy cannot answer the questions central to theology or science, nor theology those central to science or philosophy, so neither can science answer the questions central to either philosophy or theology.¹⁵

1.4 The Postmodern Synthesis

Yet knowledge is not the same as power, however much power accrues from the constant ideoscopic extensions of human understanding; and the speculative requirements upon human understanding in its distinctiveness cannot be made to go away. So it is fitting that just as a Fourth Age of Understanding dawns in Peirce's proposal¹⁶ of a New List of Categories able to accommodate the interweaving of the workings of nature and mind in the fabric of experience, so also should develop a new "science"—a renewal of philosophy itself, more exactly—able to accommodate within the order of human understanding on its own ground and in its own right the inter-relation of speculative and practical thought through the action of signs.

1.4.1 Semiotics and Theology

For semiotics, like the confessional notion of theology distinguished from philosophy in the time of Aquinas, extends equally to the speculative and practical orders, inasmuch as all thought, whether speculative or practical, is in signs. So the doctrine of signs, analogous to the dogmatic theology achieved after the thirteenth century, is not restricted to the speculative or practical orders but extends to both, *utramque includit*,¹⁷ yet for a very different reason: not because it supposes the illumination of a light superior to human understanding, a revelation authored as such by God, but because it provides the means whereby speculative and practical understanding alike are achieved. Semiotics provides, in this way—but this time from within the very order of human understanding as human—a distinction which unites the speculative and practical orders within one inter- or transdisciplinary perspective provided by the awareness and study of semiosis.¹⁸

15. See the sections "Questions only Humans Ask" and "Reasonable Questions Philosophy Cannot Answer" in the *Four Ages* (Deely 2001: 487–491).

16. Peirce 1867: CP 1.545–567; see commentary in the *Four Ages* (Deely 2001: 637ff.).

17. Cf. Aquinas 1266: *Summa theologiae Prima Pars*, q. 1, art. 4c.

18. 1818 To paraphrase the text of Aquinas (above, note 11) manifesting how sacred theology transcends the terms of the speculative/practical distinction, we may say that semiotics achieves transcendence of those same terms as follows: Licet in scientiis philosophicis alia sit speculativa, et alia practica, signorum tamen doctrina comprehendit utramque; sicut et anthropos eadem actione signorum seu «semiosis» se cognoscit et ea quae facit, ea facitur natura et ea facitur cultura.—Although some philosophical disciplines are speculative and yet others are practical, yet the doctrine of signs covers both; in just this way the human animal by the same action of signs or "semiosis" knows both itself and what the self does, the things made by nature and the things made by culture. Cf. the *Four Ages* (Deely 2001: 606).

1.4.2 *Semiotics and the Special Sciences: the Natural Antidote to Modern Over-Specialization*¹⁹

Interdisciplinary studies, the need for which became felt increasingly as the ideoscopic demands of scientific specialization increased over the modern centuries, suddenly finds its natural home in semiotic as the doctrine of signs. For semiotic takes its thematic orientation from the instrument of all knowledge, cenoscopic or ideoscopic, confessional or experimental, the sign, which weaves its web of triadic relations no less across than within the specialized areas of human experience constructed by the sciences, by the different religious traditions, by the different cultural traditions of the various groups of human animals.

The sign embraces the realms both of nature and culture, underlying their unification in human experience, and opening the way to those sound extensions of our knowledge of what is whereby that knowledge becomes practical in new areas. The way of signs, in this fashion, opens beyond modern philosophy, which came to see itself as confined to the order of mind-dependent being (*ens rationis*), but beyond as well the central preoccupation of ancient and medieval philosophy with the objects of speculative knowledge as such (*ens reale*), to the world of human experience in its totality which includes "common sense" at the core of cenoscopic knowledge no less than that distinctively modern development of ideoscopic knowledge which alone we had come to call "science" by the postmodern dawn. "The unifying function of semiotics", as Petrilli and Ponzio put it,²⁰ "concerns proposals and practical orientations for human life in its wholeness (human life considered in all its biological and socio-cultural aspects)", no less than in revealing the foundations for human understanding in what is distinctive of it as achieving a grasp in the first place of the speculative order precisely in those foundational aspects which can never be brought under the control of any finite being.

2. Semiotics and the Postmodern Destiny

These are matters of importance and of the greatest interest philosophically: providing a view of history as not merely the landscape but veritably the laboratory of ideas insofar as knowledge develops cenoscopically, enlarging the very scope of "common sense" in history; while at the same time exposing the unity in semiosis of the whole reach of human understanding whereby semiotics becomes a knowledge that in principle embraces both the ideoscopic and the cenoscopic orders, even while remaining primarily cenoscopic ("philosophical", if you like) in its distinctive character. *Speculativa et practica utramque*

19. A fullest statement of this theme to date is spelled out in Deely 2012: "What is semiotics?"

20. Petrilli and Ponzio 2001: 34.

comprehendit semiotica—semiotics as a distinctively postmodern development embraces practical understanding no less than speculative. That is no small thing to realize.

So we see what the doctrine of signs provides, and why it is at the heart of the transition in intellectual culture from modernity to a postmodern age in which unity in principle is restored to the life of the human mind beyond and beneath the various specializations necessary for the extension of human thought to ever new areas as humanity realizes its responsibilities for its actions, collective no less than individual, particularly as human action impacts upon the biosphere as a whole upon which all life depends. Thus the human being, as the only animal able to know that there are signs, achieves its postmodern self-consciousness as the *semiotic animal*, rather than a mere *res cogitans*, a “thinking thing”, as the moderns thought. But the semiotic animal is also, and for the same reason that it is the only semiotic animal on earth, also perforce a *semioethical animal*, an animal that comes to realize that the use of signs has consequences, particularly as the distinctively human speculative grasp of the being of nature enables human beings to extend their control and the consequences of their actions to ever larger domains of planet earth (and beyond) as the human animal realizes more and more the semiotic character of its destiny to master the use of signs to the betterment of all that human life touches, beginning with itself.

Let us rest, for the nonce, then, with the realization of a new overall outline of philosophy in its history and a redrawing of the map of philosophy itself as it provides any guidance at all into future developments of understanding (the understanding of understanding in particular). It is enough for a while. For, as Peirce best noted, the meaning of what we say in our present cannot be fully determined here and now, but ever depends in part on discourse yet to come; or, to speak rather in the accents of Aristotle before Peirce, time is a good partner in filling in what has once been well-outlined, while progress in the pertinent arts and sciences tends to a standstill in the absence of such an outline. It is time for some genuine progress in philosophy, specifically in the form of a growing appreciation and development of the doctrine of signs in the community of inquirers as postmodernity unfolds in its own proper genius.

THE DEFINITION OF HUMAN BEING AS “SEMIOTIC ANIMAL”

1. The Quintessence of Modern Philosophy

From ancient Greek times and through the Latin Age from Augustine to Poinsett, the human being was defined as a “rational animal”, *animale rationale*, linked, as animal, to the rest of nature, but separated, by reason, from nature’s control. Through reason, instead, the human animal was to be the master of nature. In modern times, this idea was carried to the extreme, in both directions. In the one direction, Descartes suggested that the use of reason consisted simply in thinking, and, in the other direction, that the reality of nature consisted simply in a world of bodies devoid of thought or feeling extended in space. To mark this supposedly clearer, distinctively modern, realization of the human condition Descartes rejected the classical definition of human being as rational animal and proposed that the true definition of the human being is a “thinking thing”, *res cogitans*. The first and (as it turned out) last problem for this thinking thing was how to get beyond its own self to reach a knowledge of anything besides or outside of itself. Kant declared the problem insoluble but irrelevant, once we realize and accept the fact that it is the structure of our minds that makes things appear as they do. The nominalist view that relations are creatures of thought alone dove-tailed with this central Kantian doctrine, and together they formed the quintessence of modern philosophy.

2. The Semiotic Revolution

Semiotics changed all this, with the simple realization that signs are relationships wherein nature and culture, what is independent of human thought and what is created by human thought, intersect and interweave to create the world of experience and to reveal a whole wherein the human being is neither separated from nor absorbed by nature but *interdependent* with it. Of course, the interdependency is not wholly symmetrical, for the dependency of human beings upon the physical universe is greater than is the state of the physical universe dependent upon the actions of human beings. But if we consider only or mainly that part of the natural universe which is the planet earth, there we find that the dominance achieved by human beings over the rest of nature has reached a point where not only is the human animal capable of destroying *itself* as a life-form and many other life-forms in the process, but also is the avoidance of self-destruction dependent upon a heightened awareness and understanding by the human animal both of itself and of its physical surroundings.

So nature in this local sense of planet earth has come to depend upon the human being, even as human beings depend upon the environment provided by planet earth. It is the beginning of a new age of intellectual culture wherein the Kantian denial of the possibility to know nature according to its own constitution and being is no longer credible. Petrilli and Ponzio, in their recent study of Sebeok's work as a semiotician, capture this postmodern essence of the Way of Signs exactly:¹ "there is no doubt that the inner human world, with great effort and serious study, may reach an understanding of non-human worlds and of its connection with them."

3. The Realism of Animals

It would almost seem that modern philosophy got little more right than the fact of the existence of finite minds, but not as pure "thinking things"; for the finite minds on planet earth are precisely all animals. So it might be said that the first thing that postmodernity accomplishes is to restore to the human animal its animality, together with the realization that all thought, all perception, is in signs. As to the "problem of the external world" created by modern philosophy, we can say unequivocally that, far from being a true problem, it is a quasi-error. It is not that there is not a reality "external" to our individual being and minds; it is just that, first, thought itself is not a spatial phenomenon, and, second, the world insofar as we are aware of it is not external to our thought. A skilled carpenter and I regarding the same piece of wood behold a "reality" as physical external

1. Petrilli and Ponzio 2001: 20.

to both of us. If at that moment of common perception a heart attack kills each of us, the wood lies there unaffected. That piece of wood is external to both of us in the sense that it is a thing. But in our awareness it is (or was) external to each of us in quite different ways, for in our awareness it is (or was) not only a thing but a known thing. As known, the piece of wood is an object, an object which happens to have (like all wood) a grain. And the grain of this wood tells a story, one which the carpenter hears with his eyes much better than I do with mine. For the grain is not only objective (that is to say, in this case, perceived), it is also subjective (that is to say, really part and revelatory of the internal constitution of the wood as a thing).

What is unknown, what we are unaware of, is external to our thought, but not what is known. The only “problem of the external world” concerns the extent of our knowledge of physical being, not the possibility of it. As Aquinas put it before and much better than Kant, there are many unknowns in fact but no unknowables in principle, for “communication and being are coextensive”.² This discovery—or realization—of the “coincidence of communication with being”³ is the heart of semiotics, and it vindicates against modernity the conviction which modern science never wholly abandoned, despite the philosophers: that nature is intelligible for the animal whose being is to understand, the human animal.

Yet understanding apart from experience is not possible, and experience without animality is not possible. So we have come to understand that the action of signs in human thought (anthroposemiosis) presupposes and constantly depends upon an action of signs in the awareness of animals (zoösemiosis), and this in turn depends upon a larger action of signs wherein plants and animals interact in ways of incredible complexity, not to mention the complexity of the action of signs among plants themselves and plants and the environment from which the plants draw nourishment (phytosemiosis)—all of which raises the further question of how and why the physical environment itself developed before life in a direction that eventually made life in the first place possible at all (physiosesemiosis).

Now these finite minds called animals are perforce distinguished by awareness of what surrounds them. Were that not the case, of course, they could neither find nor look for food, not to mention sex and shelter. Yet they are not, as animals, interested in what surrounds them for its own sake but much rather (wholly and only, in fact) for their own sake. So a twofold necessity manifests itself at the heart of zoösemiotics: animals need to be aware of something of what really surrounds them in order to be able to survive, but they need to be aware of those surroundings not for what the surroundings themselves are

2. The formula from the high Middle Age was “*ens et verum convertuntur*”. See the Index entry UNKNOWABILITY in Deely 2001:1009.

3. Petrilli and Ponzio 2001: 54.

but for what they can provide that meets the needs and desires of the animals to survive and thrive. This twofold necessity in the animal is met, the first by sensation, which is selective but not interpretive, the second by sense-perception, which is interpretive but only on the basis of the correlativity of what the animal is (on the one side) and what the environment is as stimulating the animal's awareness (on the other side).

This twofold necessity lies behind the requirement that any theory of knowledge must have a component that accounts for some "realism" in the awareness of animals, human or not: the theory needs to account for the fact that those forms of life that we call animal often enough survive and thrive between those two crucial moments of substantial change called by Aristotle "generation"—the moment of origin of the individual animal—and "corruption"—the moment of the individual animal's demise. For surviving over a lifetime would not be possible did the senses not provide accurate information regarding the surroundings for perception to build upon. Let us call it "animal realism", for that is what it is.

Now there is something peculiar—very peculiar, so peculiar it is little noticed—about the realism essential to the survival of animals, namely, that it could not be were it not for relations of two quite different sorts in the action of signs, relations which yet share the same "essence" of relation as such (to wit, suprasubjectivity), namely, relations in awareness or thought alone and relations in nature as well as in the awareness of animals. Consider. The lion is stalking a prey which, were it to learn of the lion's intentions would flee (naturally!), and is swift enough probably to escape. So the lion is extra careful to sneak up on the prey, to get it within leaping distance. And the prey is munching grass and leaves next to a pillar, a ruin, in fact, from an old Roman fort. But on which side of the pillar is the prey respecting the lion? Is it to the right of the pillar, or is it to the left of the pillar? If it is to the right, and the lion leaps to the left, the game is lost. Moreover, the lion is close to starving. It is crucial that the lion "get it right" where the prey is (even if it be to the left of the pillar).

Anyone who has been attacked by a lion will have no doubt that, when "push comes to shove", the lion will have no trouble determining which is the right and which the left of the pillar. Every lion that lives to attack prey, after all is a realist, as above noted. Yet, consider: being next to a pillar is a real relation, but being to the right or being to the left is not. So how does the lion get it right?

Now we face the peculiarity of animal life. It is semiosocially cognitive. That is to say, it involves *awareness* of what the animal needs and seeks. Yet such awareness involves relations not given independently of finite mind, that is, not given independently of the awareness itself. Not only that. But the objects of the environment are not even given as things fully in the manner that suits the needs of the animal. Poison to one animal is sugar to another. Ask any bat (which feeds on moths) or moth (which is fed on by bats). The classification of objects as to be sought (+) or avoided (-) depends upon not *what* is

as much as upon *who is*, that is to say, what species of animal is concerned. What the bat seeks the moth avoids, and conversely. Such is the essence of realism, animal realism, the realism that makes the difference (between living and extinction).

Whether the prey is to the right or to the left depends not upon the prey nor upon the pillar, but rather upon me (I speak here for the lion, understand), the predator. What is crucial to my success in acquiring the prey is that I know where it is, that I locate it properly in my leap to the kill. What is important is not whether the zebra stands to the pillar's right or left, but that I orient myself relative to it and it relative to me such that, when I leap, I land on the zebra and not on the pillar's empty side. In order to do this, I have to orientate myself relative to the surroundings as including the prey, and this requires the addition through my awareness to the environment of relations that do not obtain independently of the orientation. It is by nature that the zebra is related to its parents and related to lions as prospective prey; but it is not by nature that the pillar has a right and left side, nor is it by nature on which side the zebra stands, but only with reference or respect to the observer, the stalker in this case, the predator.

So every *awareness* that pertains to motion in space requires that the one moving, in order to know “where it is” and not just wander aimlessly or lost, maintain a system of cognitive relations that will involve but not reduce to physical reality but will add to it relations of awareness, mind-dependent relations that the Latins called “*entia rationis*” not because reason was necessary to form them but only because reason would be required to recognize them for what they are in the order of being, namely mind-dependent (purely objective) in contrast to other relations and things (like the zebra) that have a mind-independent being along with and within their objective being. Animals “without reason” but capable of estimation and sense-perception, any animal that survives by moving about in its environment, form *relationes rationis*, “mind-dependent relations”, as the Latins put it, “materially”—that is, without knowing that they did so in an explicit and conscious manner.⁴ The sage animal knows when to move north rather than east, even though it does not know “north” as such but simply as the direction in which to go. These animals, exactly as Maritain said, “use signs, but they do not know that there are signs”.

4. The Crucial Realization

Why not? This brings us to the crucial realization in the long history of these questions about sign which enables us to propose a new definition of human being, a definition that will mark the break of postmodern with modern intellectual culture as sharply and

4. Poinso 1632: *Tractatus de Signis*, First Preamble, Article 3, 66/46–67/8.

clearly as did Descartes' definition mark the break of modern with ancient and medieval intellectual culture (and with greater justice). The crucial realization is the realization at last that signs are not one type of particular thing among other types of particular things which we can see, hear, and point to, but rather that signs in their proper being, strictly and technically, cannot be seen or heard or pointed to at all!

Now this sounds to the semiotically uninitiated crazy on the face of it, for surely no one has traveled a modern road today without being on the look-out for some particular sign which, when it appears in our perceptual field, we point to and exclaim "There's the sign". Yet take note that what we point to as a sign in such a case exists as a sign not according to any quality subjectively inherent to it, but only by reason of occupying the foreground position of something that represents an object distinct from itself to me or to you observing and interpreting its reference. And just as clearly, this relation which brings together the three elements—the so-called sign (but actually the sign-vehicle or representamen), its object, and you as interpreting it, whether correctly or not—does not reduce to any one of the three (is not "in" any of them), but exists over and above them as providing the unity according to which a signification occurs. (Notice in passing here that to say "object" and to say "object signified" is to say the same thing, so that "significate" says openly what "object" says in a hidden way.) What is essential to the situation, notice, is that there be this suprasubjective objective relation in order for signification to occur, even though whatever material structure you point to and call "the sign" has an existence which does not depend upon successful signification. It just is. It is a "sign" only thanks to the triadic relation as just described. And this proves true even in the case where the subjectivity of the sign vehicle does have an intrinsic connection (a "transcendental relation", you may recall, in Peirce's terms) with the ontological relation it provenates, which connection, when objectified or known, functions within the relation of a "natural" as opposed to a "conventional" signification. Natural and conventional sign-vehicles differ in the order of transcendental relation (or subjective being), but not at all in the order of ontological relation as providing the objective being of any actual signification.⁵

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5. Within the interweave and flux in experience of cognition-dependent and cognition-independent relations, only those organisms possessing the capacity to understand in its distinction from the capacities to sense and perceive will ever be able even on occasion, on this planet or on a planet elsewhere in the physical environs, to discriminate between real and unreal elements in semiosis, the process of communication through signs. Stipulation, the use of signs as an arbitrary medium such as Saussure made the basis of scientific linguistics, and as a distinctive semiotic process, presupposes exactly this ability; and it is *only* in relation to stipulative decisions and their consequences that language, as "conventional", can be said to be species-specifically human. But stipulations presuppose an ability to use signs grasped directly in terms of the relations which constitute them, as occurs only in anthroposemiosis, and stipulations, when successful, pass into customs, and customs into nature. Thus, sign-systems arise out of nature in anthropoid experience, become partially mind-dependent through the transcendence

So it has become customary in contemporary semiotics to distinguish between *the actual sign*, that is to say, the actual triadic relation obtaining here and now, and the *sign-vehicle* (or "representamen")—which is what is called a sign colloquially and in everyday language, but which we now see depends for this function of signifying upon occupying a particular position within a triadic relation, such that *anything* which occupies that foreground position of standing for another than itself to or for someone⁶ will be turned into a "sign" in the ordinary sense.

When some particular thing happens to have been *instituted* to play just this role, then we call that particular thing "a sign" in contrast to the many other particular objects not so instituted. But soon enough we also notice that *no* object experienced, including the ones not instituted as signs, remains for long a pure self-representation, because every object in our experience acquires associations which make us think of other things besides itself. The universe of objects is thus literally, in Peirce's apt expression, "perfused with signs". For the triadic relation of signifying is not tied to any intrinsic structure inasmuch as it is a relation indifferently of the order of *ens reale* or *ens rationis*, mind-independent or mind-dependent being, depending upon circumstances. No. Something that in one set of circumstances functions as sign-vehicle may well function in another set of circumstances as object signified, and so on, in an endless spiral called asymptotically "infinite semiosis". This spiral of signify-ings⁷ begins when the animal begins, and ends only when the animal does too.

of physical environment and transformation of it into an objective world in perception, and then partially "conventionalized" in the sphere of human understanding as the social relations of immediate interactions among coeval conspecifics become wrapped up with cultural relations. Through these latter relations alone, from calendars to courts to compacts, wherein history begins to accumulate in a modality transmissible independently of biological inheritance, does it come about that anthropos, the human animal, is no longer tied to immediate interactions. But the conventional in this sense then passes back again through customs into continuity with the natural world as it is experienced perceptually by human and non-human animals alike.

"Language", in short, in the sense that is species-specific to *homo sapiens sapiens*, is nothing else than the purely objective component of semiosis explicitly segregated and seized upon in its unique signifying potential by the understanding in its distinction from perception and sense. As a result of the exaptation of language so constituted and brought into play, those organisms capable of seizing upon the difference between the comparatively pure and mixed elements of objectivity soon find themselves in a world different from their animal brethren of even the most kindred biological types. In pre-linguistic experience, relations are not distinguished from the *objects related*. With syntactic language, it becomes possible to separate the two (as, indeed, with the unreflected apprehension of this difference syntactic language becomes possible). The consequences of this simple feat are enormous, and without end—literally, for it is this that makes human experience an "open-ended" affair (an "infinite semiosis") as a matter of principle and capable of giving rise to that whole panoply of postlinguistic structures that we are accustomed to call "culture". See esp. Sebeok 1987.

6. I pass over here the otherwise crucial distinction between "interpreter" and "interpretant".

7. Diagrammed in Deely 1985b: 321; 2001b: 28, or 2003: 164.

We see, then, that, in animal life, semiosis is everywhere at work, and that it depends for its working upon a certain kind of being, namely, the being of respect or “being toward” (*adesse*) that is singular to relation as suprasubjective (even though dependent upon some inherent characteristic, or “feature of individual subjectivity”), a “being” which is found in nature as well as in cognition but which, as found in nature, has a more limited scope than the triadic relations of signification exhibit. If the semiosis of animals did not incorporate some of the dyadic relations given in nature independently of awareness, the animals could not feed and shelter themselves. But if the semiosis of animals did not add to those relations a further weave of relations of the animal awareness’ own making, the animals could not find that needed food and shelter save by chance, for want of any system of orientation.

The relations in nature, *relationes reales* or “mind-independent relations”, some of them, enter into the awareness of animals through sensations, whence perception too both adds to them and incorporates them. Colors and sounds are not “atomic data” but much rather molecular: they reveal shapes, movements, positions, sizes simultaneously, and reveal them to the animal. Thus they are already triadic in the nature of the being proper to signs, even though there are no *relationes rationis* or “mind-independent relations” in the mix at this level. At the higher level of sense-perception, where these complex data are interpreted and incorporated into a structure of objects as to be sought (+), avoided (-), or safely ignored (0), as we have seen, mind-dependent relations are of necessity added, for there is no other way that the environment becomes related to the animal as meaningful for its kind. These “added” relations have the animal as their center, and their function is precisely to relate the surroundings to the animal in a manner that meets the needs and desires of the animal.

Only at this point does the root singularity of relation among the modes of being come full to light. The relations given in sensation are fundamentally derived from interaction between the animal’s body and the material structures of the environment. Were it not for the animal awareness resultant from the stimulation by the environment of those parts of the animal body adapted to sense, the relations would be purely dyadic; yet, because the response of the animal body in this case is to *become aware* of the relevant environmental features, these inherently dyadic and causally based relations are incorporated into the triadic structure typical of and necessary for semiosis.

But at the higher level of sense-perception wherein the sensation is incorporated, the added relations, even though triadic, can be one-sided. The “one-sided love-affair” illustrates a point that is yet more general than cases of unrequited affection. In sensation, objects and things are inseparably linked; in perception, the linkage is more precarious. Perception is for the sake of the animal’s success in negotiating the things surrounding it, yes. But the relations required for this necessarily present the aspects of things (as forced into the sensory awareness by physical interaction among the bodies surrounding

and impacting upon the animal's body) organized into objects cognized perceptually, and these objects as such have some transcendence over the world of things as existing whether or not cognized. This transcendence opens the possibility of mistakes as well as of successful adaptations. If, for example, some sensed feature of the environment is classified perceptually by the animal as safe to ignore (0), when in fact it is rather a camouflaged (or simply misperceived) danger (-), the result of the perception can be the maiming or death of the perceiver.

4.1 The Peculiarity of Psychological States

The peculiarity of an animal's psychological states vis-à-vis its physical characteristics seems to come down to this. Relations based on physical characteristics of subjectivity come and go and constantly shift according to changing physical circumstance; in any given situation, the physical aspect of subjectivity may or may not *additionally* be the fundament for any particular relation. But psychological states of subjectivity are distinguished by *necessarily* giving rise to relations to objects; they cannot be *without also being* the fundaments of relations terminating at objects, regardless of whether those objects are real or not in the way that they are presented to be in the relation or relations terminating at them. To recognize someone, for example, requires a previous experience of that person stored in memory. The memory, however, as stored in me functions always to relate me to something that I myself am not, the one remembered. When I encounter that person in the sensed environment, they are not only a thing but further a *known* thing, in the supposed case, an object recognized. But of course I may see someone and not recognize them; or, indeed, recognize them, only to learn on calling out to them that they are not the person I recognized after all—common enough experiences, but ones the semiotic implications of which are not usually well understood. What has happened here is that, on the basis of my psychological states, a thing sensed in the environment was perceived objectively as something that in fact it was not, thus making unmistakable the difference between objects and things, as well as illustrating (something very important that escaped the Kantians) the *possibility* of their partial identification in objectivity.

We may put it this way. In sensation, object and thing are necessarily identified, even though in principle distinct. In sense-perception, object and thing may be identified in fact, but because in principle they are distinct, the identification may prove to be mistaken in particular cases. The world of things objectified is what sense-perception is all about, and sense-perception is based on or rooted in sensation where objectivity has its beginnings and constant foundation in the shifting sand of exclusively real relations. But because the world of objects, the *Umwelt*, includes but does not reduce to the world of things, mistakes are possible (as well, of course, as plans for changing the environment itself according to an envisioned future at variance with the facts here and now, as when

a beaver encounters a stream with no dam and proceeds to rectify the situation). These mistakes stem from the fact that objects are necessarily, while things are not necessarily (but can be), the terminus of relations founded in or upon the psychological states of the animal as knower.

The fact that objects are necessarily *at the terminus* of relations grounded or founded in and on psychological states is what guarantees that the objective world is always in principle a public and never a purely private world. For any two things can be related to a common third, even though each animal, subjectively considered, has “its own” ideas and feelings. But these psychological states as each animal’s own cannot exist otherwise than as foundations for relations to objects of awareness at and as their terminus; and this terminus, therefore, like the relation itself, is suprasubjective, not subjective or intrasubjective—unless of course the object also happens to be a thing (the friend correctly recognized), in which case the subjectivity of the known belongs to the object not because it is an object but contingently as *coincident with and contained within* its objectivity.

A thing cannot be a substance unless it exists subjectively as an individual in the world of nature, a “natural unit”. Similarly, an inherent accident of a substance cannot be except as a modification of subjectivity, an “individual characteristic”. But a relation among substances depends upon their *subjective* characteristics, indeed, but does not reduce to them, is always “over and above”, “suprasubjective respecting”, the individuals related with their subjective characteristics. And when the individual characteristics founding or provenating the relations are psychological states, the objects at which they terminate owe their being as objective to the relations (as indeed is the case with every terminus *as such*) and not to the subjectivity the object may or may not have in its own right in the order of *ens reale*. Thus a dead friend remains present to us objectively and in a manner in principle public, even though never more as *de facto* identical with a person we may meet on the street.

4.2 The World of the Animal (Umwelt)

We see then that the world in which the animal lives necessarily includes something of the physical environment according to the being the environment has independently of the animal. But this animal lifeworld necessarily includes also relations which structure the environment as nascently objectified in sensation to transform it into a *meaningful objective* world, an Umwelt, which depends for its existence as such and as a whole on a fabric of experience whose threads are an admixture of mind-dependent and mind-independent relations (*entia realia* and *entia rationis*). It is this admixture, this interweave of relational threads which gives to the fabric of experience its texture and pattern according to which objects exist interpreted as this (+), that (–), or the other

thing (0). This whole, undifferentiated, is reality for the animal, and with good reason; for the animal’s survival and thrival depends entirely upon it. The “mind” adds to the Umwelt as a whole nothing but relations. Yet these relations are what make the difference between this object and that object, not, indeed, as “things”, but as “objects of experience”. Patterns of relationships are what enable the animal to recognize things and make its way in the world, always risking mistakes, of course, but generally thriving in spite of them (that is to say, by often enough avoiding the possible mistakes). Maritain nicely captures this situation of the animal Umwelt by remarking that animals perceive *related things* and make their objective determinations accordingly, but without ever grasping the *relation of signification* as such: whence they make use of signs without knowing that there are signs.

4.3 The World of the Human Animal (Lebenswelt, i.e., Umwelt as Species-Specifically Human)

Now it is the mark distinctive of human intelligence to be able to distinguish relations from related things and to deal with relations directly in the understanding, even though a relation of its very nature as supra-subjective is not the kind of thing that can be, under any circumstances at all, directly seen, heard, or pointed to.⁸ This “imperceptibility” of relations, together with the indifference of relation as such to whether it exists from mind or nature, is the key to the manner in which the action of signs transcends and bridges the distinctions between nature and culture respecting the surroundings, inner and outer respecting thought. For the being proper to and constitutive of signs, as we now know, is not the being proper to any particular thing as particular. The being proper to particulars as particular is the being of subjectivity, either that of the individual as such (“substance”), or that of the characteristics which mark that individual as this rather than that particular (“inherent accident”). But the being proper to relations is the being which makes one individual respect some other individual. And, if the foundation of the relation be a “passion of the soul”, as the ancients called what we call psychological states, the “individual respected” has the being of an object which, as such, may or may not, need not but could, be identical with a physically—that is to say, subjectively—existing individual or characteristic of an individual.

The Latins (and even the moderns after them in their radical distortion of these “passions” by making of them themselves the objects of our awareness rather than the sign-vehicles conveying our awareness to objects and to the objective world as necessarily incorporating directly within objectivity something also of the physical environment in its character as indifferent to our awareness in its own existence), concentrating on

8. I have devoted a book to this point, Deely 2002.

the cognitive side of objectification, failed to note that there is no cognition without cathexis. Every object is accompanied in its presentation to the animal by a “feeling-tone” which is part and parcel of the objectivity. (“Amor transit in conditionem objecti” is the way Poinsoot put it.) Thus the passions of the soul in their entirety, not just in those psychological states which are cognitive but equally in those which are affective, need to be brought under the semiotic rubric of sign-vehicles.

Here it is enough to note that the “final cause”, the “teleonomic character”, of the passions of the soul is to structure from within the animal (Innenwelt) the outer world of objects as incorporating things (Umwelt), and to link the two by a web of relations in which the whole is related to and centered upon the animal according to the needs and longings of its life. In modern philosophy, this structured linkage was precluded by the obtuse reduction of ideas as other-representations to objects as self-representations, plunging generations of thinkers into the quasi-error of the external world. When semiotics by the 20th century’s end had shown how the action of signs creates an intersection of nature and culture where *ens reale* is taken out from under the erasure of Kantian critique, the postmodern epoch of intellectual culture was achieved *in nuce*.

5. The Postmodern Definition of Human Being

This is a turning point, however, to be not merely celebrated but unmistakably marked. Just as Descartes had marked the turning point to modern philosophy by replacing the ancient definition of the human as *animal rationale* with the modern definition of *res cogitans*, so it becomes possible at the turn to postmodernity to mark the passage with a new definition of the human as *animal semeioticum*, the semiotic animal, the only animal that not only uses signs but knows that there are signs. If, therefore, semiotics is that knowledge that arises from observation and reflection upon the action of signs, as biology is that knowledge that arises from observation and reflection upon the activity of organisms; and if semiotics has as its principal upshot the realization that, together with the animal experiences upon which human knowledge depends, all of human knowledge in whatever field develops through this action which semiotics thematizes, then we can also see that this definition of human nature that semiotics calls for is precisely in terms of genus and difference—a true definition, not merely a description. Since semiotics is the name that corresponds to the knowledge consequent upon the recognition of the being of signs, and since this being, as ontologically relative, transcends sense-perception in what is proper to it, calling *homo sapiens sapiens* the “semiotic animal” not only restores to the *res cogitans* its bodily and animal components but does so by recognizing that cogitation takes place in and depends throughout upon a wider context of the action of signs. This wider context makes imaginary the solipsism with which modern philosophy

struggled to the death—its own—in the denial of the animal realism which makes physical reality always a part even though never the whole of objectivity, the objective world, the Umwelt.

5.1 The Symbolicity of the Definition

Thus our new definition has a twofold symbolism. It symbolizes the recovery of that possibility of an understanding of physical and natural being which the Greeks and the Latins prized but which the moderns in philosophy had ruled out in consequence of their epistemological paradigm conflating self-representation and other-representation at the most fundamental levels. And it symbolizes at the same time the realization constitutive of semiotic consciousness: that the action of signs as resulting in anthroposemiosis provides the sole means whereby the mind has the possibility of “becoming all things”—*anima est quodammodo omnia*—in that convertibility of being with truth that is the elusive, asymptotic goal of the community of inquirers needed to support intelligence in those scientific and literary aspects found as expressions only of a race of semiotic animals.

5.2 The Source of Intelligibility within Anthroposemiosis

Awareness of relation as distinct from the things that happen to be related is the key to understanding the distinctiveness of the semiotic animal. For it is precisely by introducing into the Umwelt the relation of self-identity that the semiotic animal frees the objective world from exclusive reference to the animal’s self and species-specific concerns. The way thereby opens to an investigation of the structures of objectivity, which begins with a recognition of the difference between aspects of objectivity that are purely socially constructed and so reduce to our (communitarian) perception of them, and aspects of objectivity that obtain prior to and/or independently of our perception of them. Flags “signify” country only within the human community; but clouds “signify” rain for many communities of animals. The awareness of objects as identical with themselves, opening the way to sorting out the polar components of *ens reale* and *ens rationis* within experience, the medievals characterized as the awareness of “being”—*ens primum cognitum*, as Aquinas called it, being prior to the awareness of any difference between real and fictive in the constitution of the objective world but as (for the first time in the evolution of animal life) establishing the possibility of thematizing just that difference.

5.3 From Semiotic Animal to Semioethics

This uniquely human awareness of the way things are, combined with the way the substances of nature form ecosystems that are interdependent, creates a unique

responsibility for the semiotic animal, a responsibility respecting which all other animals (to say nothing of plants), unable to know that there are signs even while necessarily using signs, remain blithely free. Other animals seek their well-being without an awareness of being as such, and hence without the possibility of conceiving a concern for the fate of the environmental elements which feed into their desires. But semiotic animals eventually come to realize the consequences of what they do by recognizing that if the surroundings are made use of without taking into consideration the nature of the things used, the whole ecosystem can come into danger and even be destroyed. "Global warming" is a code-expression for this profound realization of the responsibility of semiotic animals to turn their awareness of being to a responsible stewardship of natural resources, both organic and inorganic, in dealings with the environment. For not only the human good but the good of Gaia as a whole depends upon the assumption of such stewardship before it is too late for all of us.

The profundity of this realization has led in the 21st century's opening to an awakening within the semiotic community of the need to move beyond purely theoretical stances and to explore "the paths of existential semiotics" and ethical responsibility, as Tarasti put it,⁹ speaking for a whole new generation of semiotic scholarship. For some, the importance of this new path has loomed so large that they think the human being ought rather to be called "the semioethical animal" than the "semiotic animal", because this new designation brings to the fore the need for human beings to assume responsibility for the whole planet, and not merely to lord it over the rest of nature as master to slave.

There is merit in this as a terminological move, but it needs clearly to be made in ways that do not obscure, gloss over, or miss entirely what is essential to the distinctiveness of human understanding underlying anthroposemiosis as such, and hence so much as the possibility of semioethics (or ethics of any variety). For to speak of a passage from the semiotic animal to the semioethical animal as if the latter supplants the former is to subordinate to animal realism the semiotic realism that arises not from responsibility but from the awareness of being which alone makes responsibility possible in the first place. That is exactly why, as Petrilli and Ponzio made this same point,¹⁰ "semiotics is not only anthroposemiotics", whereas "semioethics" is an exclusively anthroposemiotic concern.

Remember that animal realism concerns exclusively the world in relation to the animal. Semiotic realism, by contrast, begins with the realization that the world is more than its relation to the animal, even the human animal. And ethical responsibility cannot arise except as subordinate to the realization of being and of the "many ways in which being can be said", with the consequent *further* realization that the life of human animals not only necessarily socially modifies nature, but with the development of science and

9. Tarasti 2000.

10. Petrilli and Ponzio 2001: 9.

technology modifies the very physical being of nature as well. But how this modification should be handled cannot even be a question before we *first* realize that the things of the physical world have *their own* intrinsic constitutions and interdependencies, constitutions and interdependencies which must be revealed from within anthroposemiosis before and as part of the question of how to manage the ecosystem, whether as a whole or in any of its parts. Thus the "semioethical animal" is derivative from, not a substitute for, the "semiotic animal". For only by knowing signs in their different paths, leading here into the depths of nature, there into the depths of culture, and revealing the interdependency of both, does an awareness of responsibility dawn.

Thomas Aquinas was a thinker who contributed substantially to but well preceded the postmodern development of semiotics. But he well understood that the ability to investigate the objective world according to its own constitution underlies any hope we have of controlling or managing that world, for good or ill. Such management of it for the good is indeed the singular responsibility of the semioethical animal, yes. But were it not for the semiotic animal, semioethics would not be so much as a gleam in the eye of its proponents. That is why semioethics always requires a *retour*, a drawing upon the resources of semiotics to transcend the distinction between speculative and practical knowledge the like of which has not been seen since the high medieval development of theology.

5.4 The Destiny of Semiotics

Realism is the keynote of animal life wherever and to whatever extent such life flourishes on our planet. Every animal is insofar a realist, and every animal's knowledge incorporates something of the physical world in its proper being, otherwise the animal could not survive. But only human animals live to tell about it, because only human animals come to see the world under the aspect of being and of the many ways in which being can be said, including those natural as well as those socially constructed. So it is the fate of human animals to be concerned with the truth, at least insofar as they are human. This concern, in turn, makes the semiotic animal necessarily semioethical in order to achieve and not betray its destiny. Other animals do not bear this burden, and semiotic animals do not often bear it well.

The glory and postmodern destiny of semiotics is to show, first, how the reality of the physical world, dealt with perforce in animal life, is dealt with there precisely by making parts and aspects of the physical world into elements and features of the animal Umwelt, the meaningful world in which every animal lives according to its kind; but then to show, further, how this life within an Umwelt inevitably impacts upon and socially alters the balances of nature itself in its being as *ens reale*. In this further task, semiotics not only corrects the short-sightedness of the moderns in matters of knowing (or "epistemology",

as they like to say, in their misbegotten distinction between “ontology” and the “theory of knowledge”¹¹), but draws attention also to the short-sightedness of the moderns in thinking that good husbandry could be ignored in the exploitation of nature.

The semiotic animal is the only ethical animal, and to call the ethical animal “semioethic” is a felicitous appellation insofar as we realize, first, that the knowledge of being creates in human animals obligations respecting action; and, second, that the awareness of the being proper to signs restores to humans at a higher level (renders previous philosophy in this regard, as we might say, “aufgehoben”) the philosophical understanding of being that modern philosophy compromised. But that dependent status of practical concern upon awareness of what is true respecting the realm of concern is precisely why “semiotic animal” remains the landmark designation not to be superseded as far as the postmodern development shall carry us. In the knowledge that there are signs presupposed to the experience and knowledge of all objects, the human being realizes both the source of its difference from the other life forms, the *humanitas* of the semiotic animal, and the universality of the process on which all the life forms depend. It would now appear that this process is perhaps the ultimate source of that general progress in physical nature from simple to complex forms that we have heretofore called “evolution”.

11. “As though”, in Maritain’s trenchant comment (1959: 66), “a philosophy of being could not also be a philosophy of mind”.

WHY THE SEMIOTIC ANIMAL NEEDS TO DEVELOP A SEMIOETHICS

A semiotic animal is an animal that lives with the awareness that the action of signs is more fundamental to the constitution of human experience than are either objects or things. Philosophical idealism in the modern sense began with the realization that objects cannot exist as such save in relation to a knower, a “thinking thing”. If human beings are the only animals that think, then “thinking thing”, exactly as Descartes proposed, is the proper definition of the human being in its species-specific uniqueness, and all the rest are mere bodies, “extended things”. Against this modern dawning, philosophical realism continued to insist on the priority of things over objects, because things do not have to be thought in order to be. But things do have to be thought in order to be known; and so began the long struggle, in all its variations, between “realism”, on the one hand, insisting on the reality of things which need not be thought in order to be known and which constitute an order without which there could be no thinkers at all, and “idealism”, on the other hand, insisting on the relation to the knower as that without which nothing could either be or be known as far as philosophers, those “thinking things”, are concerned.

1. The Achilles Heel of Modern Philosophy

Yet this inevitable and inescapable “relation to a knower” which gave to idealism, as Heidegger put it (1927: 251), “no matter how contrary and untenable” its results, “an advantage in principle”, proved also to be an Achilles Heel. For when thought fastened

onto this relation as a thematic focus,¹ what soon enough appeared was the discovery that nothing about the relationship itself characterized it intrinsically as belonging exclusively either to mind or to nature. The relationship manifested itself rather as open to both in a manner *indifferent to their difference* as provenating on the one hand an experience of objects which involve also things and on the other hand objects whose being reduced to their apprehension and social acceptance. In other words, the necessity of the relation to a cognitive organism upon which idealism rightly insisted, and which realism tried to marginalize, turned out to be the root of the prior possibility of an action of signs upon which all experience of objects and/or things of nature depended.² What never occurred to either the modern idealists or realists over the long course of their debate was that the priority for establishing awareness of whatever kind belongs neither to objects nor to things but to signs as triadic ontological relations, suprasubjective in principle as relations and triadic in their character as semiotic relations, that is to say, the relations consequent upon the action of signs.³

Of course, we should not oversimplify the situation. Sign relations, which is to say, signs in their proper being as signs, are not free-floating entities pure and simple. They need to be grounded, and grounded moreover in three terms simultaneously in order to achieve their proper significate outcome.⁴ The relation itself constituting the sign is always and necessarily suprasubjective in character, but the foundation or “*sign-vehicle*”, the representamen, from which the sign points to its *object signified*, may be objective only or subjective as well, and the one to or for whom the sign-vehicle presents the object signified as other than itself, the *interpretant*, need not be a cognitive power or organism (although it is easiest to understand the role of the interpretant in cases where it is—Peirce called it “a sop to Cerberus”). Nor need the interpretant even be actual but only virtual, as often occurs in physiosemiosis, particularly in the early phases prior to life where the future influences the past through the present sufficiently to bring it about that events move in the direction of the emergence of living things and the beginnings of biosemiosis.

2. The Extent of Semiosis

Let us think a moment over the long span of that semiosis whereby first the stars and planets form and then, upon the planets, some of them at least—though how many at the

1. Poinset 1632a, *Tractatus de Signis*, Book I, Question 1, “Utrum signum sit in genere relationis”.

2. Cf. *Ibid.*, Second Preamble “On Relation”, Art. 2, 93/17–96/36.

3. *Ibid.*, Book I, Question 3.

4. Peirce 1905/6: CP 5.473.

moment we can only guess (knowing but the one instance of our own world for sure “as a matter of fact”, while suspecting *many* more as a matter of principle and overwhelming probability)—comes forth life. As soon as we cross that threshold we are into the realm no longer of pure physiosemiosis with its virtualities but into the sphere of biosemiosis, the activities of life within organisms which depends at every step on *communication* mediated by signs, that is to say, upon semiosis, between the organisms and their environment and the organisms with one another. Sebeok, who did more than anyone else to establish this concept of the semiosis coextensive with the boundaries of life itself, “biosemiosis”, had many terms to describe its lower reaches among the eukaryotes, prokaryotes, and bacteria (*microsemiotics*), fungi and slime molds (*mycosemiotics*), as well as within the higher organisms (including ourselves) whose maintenance of self-identity as individual substances depends intimately on our hosting of colonies and varieties of other organisms within our very bodies (*endosemiotics*). I do not mean to oversimplify the complexities of this grand biosemiosis, so well developed in our recent understanding in particular by the subsequent works of Hoffmeyer, Kull, and Emmeche. Yet it may be enough for my purposes, in this highly restricted purview, to speak of biosemiosis simply in terms of *phytosemiosis*, covering the action of signs among plants and between plants and animals insofar as the semiosis originates on the side of the plants; *zoösemiosis*, covering the action of signs among animals (including their reaction to phytosemioses) apart from language; and *anthroposemiosis*, covering the human use of signs both overlapping with, but especially as species-specifically distinct from, zoösemiosis.

In phytosemiosis there is little in the way of choice. It is not a question of stimulus-response, however, but of a truly triadic interaction that sustains the life of plants,⁵ as we witness in the trees uninfected that develop the same antibodies through communication with the tree that is infected. In zoösemiosis, by contrast, we enter the realm of animals and the Umwelt properly conceived as such. For only in the life of animals do things become objects, and objects become cathected and constructed according to the lifeplan of the animals as + (to be sought), – (to be avoided), and Ø (safely to be ignored).

In the Umwelt of the animal, the idealist “relation to the knower” is not only the key, it is everything. The world of objects cathected and constructed on the animal’s lifeplan is, like every objective world, a mixture of relations mind-independent and mind-dependent, an “intersection of nature and culture” *in virtuo*, as it were, inasmuch as every system of orientation to and within an environment requires the formation of relations which have no being apart from the cognizing of the organism.⁶ Yet the organism cognizing has no interest in the matter apart from the object that the system

5. Krampen 1981.

6. See Deely 2001c and 2002.

of orientation enables it to seek or avoid. If the relations were not in sufficient measure mind-independent, the organism would starve or be eaten. If the relations were not in sufficient measure mind-dependent, the organism would not be able to find its way in the environment—toward what it seeks, or away from what it seeks to avoid. But, beyond the seeking or the avoiding, the organism has no interest, no interest whatever. That the relations succeed in forming a semiotic web catching the prey and eluding the enemy is all that counts. End of story.

More than this. The *things related*, that is to say, in the case before us, the *object or objects signified*, are accessible to sense perception. The relations which constitute them as objects cathected and constructed as +, -, or \emptyset , however, make no direct entry into the equation. The relations as such, the relations as suprasubjective strands of the web within which objects exist incorporating things interpreted in this or that fashion, are essential to what the organism perceives, but they are “in themselves” of no interest at all to the organism. The organism is interested in what is interpreted, the objects signified, not at all in *what makes the interpretation possible in the first place*, be it the internal constitution of things in the physical environment prior to interpretation or the semiotic web of sign relations respecting which the objects themselves (like the organism perceiving) are comparatively *subjective*. And they must be subjective as well as objective most of the time, at least, in the case of the + objects; otherwise, the animals would die of starvation.

3. The Animal Which Would Become Semiotic

Enter among the animals, now, what Aristotle in his *Politics* called the ζῷον λογὸν ἔχων, the animal capable of communicating linguistically, which would become—as I now think, with some impoverishment—the *rational animal* of Porphyry’s tree (c.271AD) and of medieval philosophy, the animal “capable of reasoning”. Such an animal, and such an animal alone among the lifeforms of planet earth, is *capable* of knowing that there are signs, and (quite a further step again) *what* signs are. Yet such an animal is not yet the same as a semiotic animal.

A semiotic animal is not an animal merely *capable* of knowing that there are signs, in distinction from objects and things. That is a rational animal, presupposed and essential to but not yet constitutive of that same animal as semiotic. The semiotic animal emerges only as the *realization* of the capacity of the rational animal for “perceiving the relation of signification” (Maritain 1957: 53). Such an animal belongs to a different level of actualization, a level at which the individual human being has achieved a personal identity inseparable from his or her experiences of things other than the self, including both others that are other human selves, and others that are selves but not human selves, and others that are not selves at all but part of or hostile to the self that is experiencing. Yet

the whole of this “self and others” involving my self, this irreducible layer of experience bound up with my being as a web which the individual centers, results in quite another self than the biological organism constituting an individual as human (or not). This “other self” which, as Dr. Petrilli said in Vienna,⁷ “presents a surplus, something more with respect to identity itself, which it transcends”, and transcends in the direction of other bodies, objects all insofar as they are known, whatever their biological and physical status. The correlation of *Innenwelt* to *Umwelt* is essential to the semiotic animal.

Thus the semiotic animal is considerably more than the rational animal. The rational animal is a type of substance, an individual of a species. The semiotic animal is a self, unique within the species of which it yet forms an individual instance. The semiotic animal is aware of its world, yet it is no *res cogitans*, for it is bound up from the first with a surrounding environment and world concerning which, little by little, it grasps the “reasons for being” (not without mistakes, of course). Rationality is a *capacity* for reasonableness, quite compatible as such with a *res cogitans*. Yet this same capacity viewed in the context of a semiotic animal cannot be separated from “the ability to grasp the reason of things”,⁸ outside of the self yet inside its *Umwelt* and still not reducible to purely objective being. Again mark the difference from a *res cogitans*: the rationality of the rational animal may be abstractly considered as closed unto itself, but experientially it is bound up with and inseparable from otherness; and this same rationality, as the capacity for being reasonable, appears against the horizon of otherness not abstractly and closed off but rather as—precisely—the ability to grasp the reason of things presented within objectivity. Hence Petrilli can say that,⁹ “given the risks inherent in social reproduction today for semiosis and for life, human beings must at their very earliest transform themselves from rational animals into reasonable animals”, animals able to deal with otherness on the basis of a grasp of the “reasons of things”, a grasp which cannot be come by in isolation, but requires experience as a web of relations which sustains both self and other as ground for the possibility of flourishing. “Under the hardened crust of its identity”, she says:¹⁰

the subject rediscovers its fear for the other, for the other’s safety through love. Such fear renders the subject incessantly restless and preoccupied for the other. Love, reasonableness, creativity are all grounded in the logic of otherness and dialogism.

7. Petrilli 2003: 15, emphasis added.

8. *Ibid.*: 16.

9. *Ibid.*

10. *Ibid.*

4. Passing the Limits of Modern Thought

In the *res cogitans*, the intermediate modern stage of development of the human species, the human being became aware of its rationality as something separating it from the rest of nature. In the semiotic animal, the modern experiment has passed its limits with the realization that rationality is by itself not yet reasonableness, for “reasonableness is the capacity to respond to the attraction exerted upon the self by the other”;¹¹ not the isolation of the self from the other. Wojtyła has described this overcoming of the modern interlude in just such terms of the necessity and irreducibility of experience to the individual.¹²

While explaining thus [i.e., metaphysically] the reality of the human being, there remains each time ... the respective “experience lived through” [*Erlebnis*] as an aspect not directly included in this metaphysical explanation or reduction, since it is an irreducible element. From the point of view of the metaphysical structure of being and action, and therefore from the point of view of the dynamics of man when he is conceived metaphysically, dealing with this element may seem unnecessary. We may acquire a sufficient understanding of the human being, of its action and of what occurs within, also without it. For many centuries, on such an understanding the whole edifice of anthropology and ethics was being constructed. But as the need of understanding the human being as an only and unique person grows, and especially as the need of understanding the personal subjectivity of man in the whole dynamics of action and occurrence proper to him keeps growing, the category of “experience lived through” gathers meaning, and, what is more, a key meaning. ...the chief aim of this is to show the person as a subject living through one’s own deeds and experiences, and thanks to all this, one’s own subjectivity. When this demand is made upon the interpretation of “the acting human being”, the category of “experience lived through” must find its place in anthropology and ethics and, what is more, must to a certain degree take its place in the center of respective interpretations.

So the “reasonable animal”, who begins to try to take into account the “reasons of things” (for example, in becoming aware of the environmental impact of greenhouse gases, etc.) marks the late modern transition from the *res cogitans* to the semiotic animal. But it may be said that the transition from *res cogitans* to semiotic animal in another way, and more fundamentally, is not gradual.¹³ This transition marks a frontier, the frontier

11. *Ibid.*

12. Karol Wojtyła 1978: 110.

13. So, for example, the definition of human being as semiotic animal is not a mere refinement, as some have proposed, on Cassirer’s early proposal of “man as the *animal symbolicum*”, for the excellent reason that a true definition and the reality defined must be co-extensive, whereas Saussure’s definition is too broad.

of postmodernity. Not until it is realized that “the keystone of the life of the mind is the sign,”¹⁴ and the consequences of this realization begin to surge into consciousness, do we have the right to speak of the semiotic animal; for a semiotic animal, as mentioned above, is an animal that lives with the awareness of the action of signs as more fundamental to the constitution of human experience than are either objects or things.

The point first, or at least best so far, made by Petrilli and Ponzio,¹⁵ that the human being, as the only semiotic animal on earth, *eo ipso* assumes the burden—like it or not—of a unique responsibility is the point of further transition, as it were, from semiotic animal merely aware of the being and action proper to signs to the semioethical animal *responsible* somehow for that being and action as bearing on the welfare of the human race and of the whole, *Gaia*, from which the race of semiotic animals is inseparable. Semiotics goes not only global, but cosmic, as it were, as the semiotic animal expands also into space beyond planet earth as part of its *Lebenswelt*. Petrilli and Ponzio describe this further awareness as a “third dimension” concerned with “the ends toward which we strive and wish to reach,” an awareness “with respect to semiosis over the whole planet”.

5. The Trajectory to Postmodernity

It is remarkable to observe the development semiotics has undergone as we move into the twenty-first century. From an early florescence in the twentieth century as “semiology”

Human beings are the only animals capable of thematizing signs, but they are far from the only animals that employ symbols. “The fondly cherished mythic characterization of man”, writes Sebeok (1976: 89), “adhered to by E. Cassirer’s epigones and many others, as a unique *animal symbolicum* can be sustained only if the definition of ‘symbol’ is impermissibly ensnared with the concept of natural language.... By every other definition—invoking the principle of arbitrariness, the idea of a conventional link between a signifier and its denotata, Peirce’s ‘imputed character’, or the notion of an intensional class for the designatum—animals demonstrably employ symbols”. Or again (Sebeok 1976: 137): “Symbols are often asserted to be the exclusive property of man, the *animal symbolicum*, but the capacity of organisms to form intensional class concepts obtains far down in phylogenesis, and this ability for constructing universals from particulars was provided with a solid mathematical-neurological rationalization over a quarter of a century ago (Pitts and McCulloch 1947; cf. Arbib 1971). Both according to the definition of symbol offered in 5.1 [‘A Sign without either similarity or contiguity, but only with a conventional link between its signifier and its denotata, and with an intensional class for its designatum, is called a symbol], and the more common Aristotelian definitions resting on the doctrine of arbitrariness that were promoted in linguistics especially by William Dwight Whitney and, after him, Saussure (Engler 1962; Coseriu 1967), animals undoubtedly do have symbols.” Whence (ibid., 135) “an unjustifiably excessive generalization and overly broad application of the concept of symbolic forms marks the writings of many of Ernst Cassirer’s epigones or of those indirectly influenced by his philosophy”. For more particulars on the occurrence of symbolic forms and usage beyond the human realm, see esp. Sebeok 1979b, and (my two favorites) Kessel 1955, von Frisch 1967.

14. Maritain 1957: 3.

15. Petrilli and Ponzio 2003.

and “structuralism” which knew not the difference between realism and idealism and in practice embraced the latter as best providing a field of play for analysts of signs (an ultramodern position mistaken by many for a “postmodernism”),¹⁶ semiotics little by little gained its footing as the doctrine of signs “at the intersection of nature and culture”, as Sebeok best put it, far from mired down on the idealist side of the realism/idealism debate but rather the first intellectual tradition to emerge beyond the very terms of that debate as able to take into account, while transcending, the focus of both camps.

The crucial discovery, as I have said, lay in the realization that the being of signs does not consist in anything sense-perceptible as such but wholly in the transcending, the “suprasubjective”, relation as such tying together what is sense-perceptible so as to form a meaningful world of objects.¹⁷ The ancients debated the distinction between intellect and sense in terms of the human being’s ability to grasp being beyond the sensible. The medievals did the same. The moderns thought rather in terms of perception and understanding and tended to reduce the latter to the field of the former. Semiotics showed that signs do not fall strictly among the things objectified by perceptions of sense but act prior to that perception to enable it to reconstruct the physical environment along objective lines that are meaningful to the species, into an *Umwelt*, as is now commonly said. To this *Umwelt* the semiotic animal brings a unique realization, the realization that, even as things presuppose objects in order to be discovered and known within them, so objects presuppose the action of signs in order to be constructed and formed into a world meaningful differently for each variety and species of living thing.

But, in discovering the imperceptible being of signs perceptibly acting in weaving the relations of meaning that constitute the world as an *Umwelt*, or, rather, series of *Umwelts*—objective worlds species-specific to each type of animal—the semiotic animal also discovers how nature enters into the objective order of what is signified, the *Umwelt*, and plays its irreducible and indispensable role in contributing to objectivity mind-independent relations alongside and interwoven with the mind-dependent ones

16. Sebeok 1996: 53. “The most unfortunate development in semiotics has been a movement which you might call postmodernism... an abortion started in Paris, and undergoing various forms and transmutations involving such individuals... as Roland Barthes, Jacques Lacan, Foucault, and most destructively in my opinion Derrida. I think these people... and not only my friend Julia Kristeva did a great disservice to semiotics by pretending that they were doing semiotics, where in fact they were doing, let me say, antisemiotics. This misled a great many people, particularly in the humanities... such people as English department teachers, French department teachers, comparative literature types... these people did such ridiculous things that the serious thinkers, like the good philosophers, the scientists, physicists, biologists, just laughed and threw up their hands.... This did a great disservice to North American and European university life, to a lesser extent in Asia.... I think... this postmodern stuff is now, in my opinion, and thank God, disappearing.” These rather scathing remarks by Sebeok, in my view, apply only to a “postmodernism” falsely so-called, as I have set forth at length in Deely 2001: Chap. 16.

17. See Deely 2001c.

which provenate from the unique self-identity maintained over and above, as a “surplus” respecting, biological or even cultural individuality. Petrilli¹⁸ cites Peirce’s British interlocutor Lady Welby as observing that “we have all entered the world precisely to be dissatisfied with it”. This dissatisfaction has at its root the difference between the world of objects which only incompletely incorporates the environment of things, and the action and interaction of those things themselves which is essential to the well-being of Umwelts regardless of whether it is known (objectified) or not. What the semiotic animal alone among the animals is in a position ontologically to take into account is precisely this shifting boundary between what is and what we are aware of as being (a boundary that modern philosophy after Kant disastrously attempted to render fixed once and for all, with the distinction between Ding-an-sich and Noumenon as exhaustively embracing the “unknowable”), a boundary sustained in its entire extent by the action of signs.

6. Semioethics Within Semiotics

So it seems to me that semioethics should not be conceived as a moving beyond semiotics, but rather as an inevitable development of semiotics from within, one necessary to the health of the biosphere insofar as humans are involved with it. The question goes back to an old contrast first thematized by Aristotle: the difference between speculative and practical knowledge. It is true that Aristotle in a certain sense misconceived this contrast, by casting it in purely objective rather than semiotic terms, and conceiving it within the framework of a conception, legitimate in its time, though for all that legitimacy thoroughly mistaken, of a universe unchanging in its specific structures. Thus Aristotle conceived of speculative knowledge as concerned with objects of awareness respecting which human thought and action can have no impact, in contrast with practical thought concerned with objects that would not be as they are were it not precisely for human beliefs and actions—such objective realities as the state, the family, and the behavior of individuals as better or worse, right or wrong.

Aquinas in the medieval interval did a little better, by noting that practical thought to be effective depends upon and must take its measure from speculative understanding, whence, as speculative understanding grows, *so does the province of practical thought* as able to extend a human impact upon the surrounding environment of physical being. He did not envision global warming, but he did envision the reason that human beings can in principle do something about it. In this Aquinas anticipated Francis Bacon with his idea for a *Novum Organum*, such as science has placed in our hands. But Aquinas differed not a whit from Aristotle in conceiving this distinction between speculative and

18. Petrilli 2003: 18.

practical in primarily objective terms. The discovery that objects presuppose signs still lay three-hundred-fifty years ahead, in the *Tractatus de Signis* of John Poinset.

It remains that the recognition of a distinctive sphere of practical thought, that is to say, the realm of what human beings by their beliefs and actions can do something about, can make otherwise than they found it initially, was the original province and meaning of "ethics" and "ethical knowledge". Yet no less important remains the recognition that such knowledge is derivative from and dependent for its effective exercise upon speculative knowledge of the way things are according to their intrinsic physical constitution as interacting individuals. "The speculative understanding or intellect", as Aquinas put it,¹⁹ "becomes practical by extension." Animals other than humans know only objects and objects which are sign-vehicles, and care not a whit for any difference between objects and things, because they have no way of making such a difference into a factor of awareness in their dealings with the world. Human animals become aware of a difference between objects which are and are not in any given context sign-vehicles, and they even mistake the sign-vehicles for signs and objects *tout court* (as Heidegger well complained) for things.

But a new kind of animal is born, the semiotic animal, as the human animals become aware not only of the difference between objects and things, but more profoundly of the difference between sign-vehicles and signs in their proper being as triadic relations presupposed to the world of objects and essential to the well-being of animals within a physical environment which, at any given time (and for any given species of animal), is only partially and aspectually objectified, even in essential matters bearing on the continuance in being of the species. As the rational animal assumed its burden of practical awareness in terms of recognizing the need for that body of thought traditionally called "ethics", as the *res cogitans* indulged itself for centuries in solipsistic reveries of idle speculation while the world around it continued on its semiotic path of evolution,²⁰ so the rational animal toward the end of modern times woke up to the need to become more *reasonable* in contrast to abstract "rationality". The way was thus prepared for the semiotic animal and semioethics as naming the extension of semiotic awareness to that unfixd boundary of intersection between nature and culture where the semiotic animal can, by taking account of the reasons of things, make a difference for the better, a difference upon which, it becomes increasingly clear, not only the semiotic animal as one among the biological lifeforms but the biosphere itself and the whole of Gaia may ultimately depend for continuance.

19. Aquinas 1266: *Summa theologiae* I, Ques. 79, Art. 11.

20. Precisely what modern philosophy ruled out semiotics provides (Petrilli 2003: 9): "The critical distancing necessary for an interpretation of contemporaneity that is not imprisoned within the limits of contemporaneity itself."

7. A New Kind of Humanism

Petrilli and Ponzio see the situation of the semiotic animal as the birth of “a new form of humanism”, a “humanism of alterity” contrasting with the traditional “humanisms of identity” by not leaving out the *rights of the other* and the importance of the *other independent of its status as human* but rather reconceptualizing the whole matter of interdependency as one “where the rights of the other are the first to be recognized”, because these rights include also my own as an “other” respecting all that surrounds me.

I think the recognition that the boundaries of semiotic reality are never fixed and always shifting is the key realization²¹ for this new, this postmodern, humanism, wherein traditional objective “ethics” is transformed as “semioethics” by the discovery that human knowledge in the whole of its extent—speculative no less than practical²²—depends upon the action of signs, an action that is presupposed to every “world of objects”, every *Umwelt* around the whole planet (or elsewhere in this universe, as the case may be). Things may pre-exist us in various ways, but only as they are translated into objects can we intelligently deal with them. And since there is (and can be) no single path for this translation, it is especially the procedures of abductive logic on which we above all depend for the translation, and the “translation” can only be understood “in the broadest sense possible, that is to say, beyond the limits of *interlingual* translation, translation as interpretation and verification of verbal and nonverbal signs alike”²³

Petrilli sees the situation as a “Third Copernican Revolution”, Kant having been the second, now overthrown by the discovery of an action of signs which allows no fixed boundary either between sensory intuition and things-in-themselves or between concepts and noumena. But I think it is not a matter of the point where “global semiotics” and “semioethics intersect”. Not at all. For the two are not independent developments. Semioethics is nothing more than the maturing consciousness of the semiotic animal become aware as self-evident of the truth²⁴ that “each and every man, woman, and child superintends over a partially shared pool of signs in which that same monadic being is immersed and must navigate for survival throughout its singular life”.

21. Petrilli 2003: 12. “If semiotics is to meet its commitment to the ‘health of semiosis’ and to cultivate its capacity to understand the entire semiotic universe, it must continuously refine its auditory and critical functions, that is, its capacity for listening and critique. And to accomplish such tasks we believe that the trichotomy that distinguishes between (1) cognitive semiotics, (2) global semiotics, and (3) semioethics is no less than decisive, not only in theoretical terms, but also for reasons of a therapeutic order.” I am not so sure of this trichotomy, but I am sure that, within anthroposemiotics, semioethics “concerns the ends towards which we strive and wish to reach”.

22. See “Semiotica utramque comprehendit” (“Semiotics embraces both”), in Deely 2003: 100–112.

23. Petrilli 2003: 18.

24. Sebeok 2001: ix.

8. In Sum

Semioethics, in short, is nothing more nor less than the question what are we going to do about, how are we going to handle, the fact that human beings are not merely “rational animals”, still less *res cogitantes*, but, in the fulness of their species-specifically unique being, semiotic animals, each and every one, an animal to and for whom *nil semiosica alienum me cogitabile est*. It is a unique responsibility, alright, springing from the awareness of semiosis as embracing the whole planet, of times past, present, and to come, and of our impact upon it as the only semiotic animals within the Gaia.

FROM SEMIOSIS TO SEMIOETHICS: THE FULL VISTA OF THE ACTION OF SIGNS¹

In this book we have looked at the many parts and aspects of semiotics in its development as the “doctrine of signs”, in order to sort out the basic notions. There are subdivisions of semiotics, to be sure; but there is no “higher order” of knowledge that is independent of the action of signs, not in the sphere of finite beings.² Having seen the parts in relation to the whole, let us bring our chapters to a close with an attempt to see the whole in

1. This chapter was developed out of exchanges with Susan Petrilli in connection with her preparation of the Thomas A. Sebeok Fellow Plenary Lecture for presentation at the 33rd Annual Meeting of the Semiotic Society of America, 17 October 2008, now published in the first “Sebeok Fellow Special Issue” of *The American Journal of Semiotics* 24.4 (2008), 1–48, which is why the two text cross on various theoretical points.
2. In an interesting terminological development, Susan Petrilli has spoken of semiotics as a “metasemiosis”, not in the sense of going “beyond semiosis”, but in the sense of establishing the sphere wherein semiosis becomes an explicit element within, a part of, conscious awareness—a term to mark that boundary between animals which use signs but do not know that there are signs, and semiotic animals: animals which, besides making use of signs, are able to come to know that there are signs and to study the implications of sign activity. There is some merit to this way of speaking, and I have used it myself in Chapter 6 above; but it is a usage that carries some rather serious dangers of creating misunderstanding. The mischievousness of this prefix “meta-” has a long history indeed.

On the positive side, inasmuch as semiotics is the name for knowledge acquired thematically by study of the action of signs, we may legitimately speak of “metasemiosis” as a singular process of semiosis itself wherein human animals go beyond the use of signs generically common to all animals (and to nature itself in its process of development toward a future with possibilities imprevisible within any synchronic horizon of the past as a network of dynamically interacting individuals or “substances”) to recognize the *existence of signs* as a distinct form or mode of being, and to *study the action* of signs precisely as consequent upon that mode (for “as a thing exercises existence, so does it act upon and is acted upon by its surroundings”—*agere et pati sequitur esse*).

relation to its parts, in three senses: first, in the sense of how we got to where we are today as students of the action of signs, the 20th century transition from semiology to semiotics proper; second, in the sense of considering the reach of the action of signs quite independently of human study or awareness of it, but perforce doing so from within anthroposemiosis and with the help of linguistic communication in particular; and third, in the sense of the ethical implications for human conduct that grow out of the awareness of sign-action, the “semioethics” of our last chapter.

Semiotics is itself a manifestation or result of the action of signs—but then so is the whole of human knowledge. So one of the first questions we have to face is why did it take human inquiry so long to find a focus in the action of signs, and even then, why did it take so much longer to get beyond that anthropocentric study of signs originally known as “semiology”?

1. Why So Late?

To say that all knowledge is by way of semiosis is not the same as to say that there are nothing but signs in the universe.³ Even though everything that we can come to know can also, and normally does, come to be a sign in various contexts (by reason of entering into further and various triadic relations), there is more to being than the being of signs.

In fact, the being of signs—*constituted*, as Peirce and Poinsoot unknowingly agreed,⁴ by the triadic relation unifying that relation’s foreground support or “vehicle” with

On the negative side, the use of “metasemiosis” creates a temptation to speak also of “metasemiotics”, as if there were or could be for human animals a realm of knowledge independent of the use or action of signs, whereas in fact not even angels are capable of such a knowledge (Deely 2004f). The chief characteristic of such a usage (as I have actually explored at some length: see Deely 2008a: Section 14–14.5) is oxymoronicity. For just as all knowledge is by way of signs, so all knowledge of signs thematically developed—whether the signs studied be external human artifacts or events of nature, or the internal signs of cognition and cathexis—is “semiotics”.

Of course, given the famous “arbitrariness” of linguistic signs, prodded by stipulation, conventionality can always step in. “Metasemiotics”, one might say, is not the oxymoronic usage that Todorov suggested, nor the Humpty-Dumpty usage occasionally indulged by Ponzio, but simply that branch of semiotics restricted to the study of “metasemiosis” as the unique feature of anthroposemiosis which distinguishes the human use of signs. Yet “metasemiotics” thus narrowly specified would in effect be a throw-back to the Cartesian notion of *res cogitans*, precisively separating human being from the larger world of animals and nature within which the action of signs determinately situates us. In the terms of Aquinas (e.g., see his *Summa*, Part I, Question 90, “Concerning the knowledge of the separated soul”), we would be inquiring into the semiosis possible for the individual human who has survived bodily death, in effect reducing “metasemiotics” to a version of Husserl’s phenomenological “epoché”. This is not the most promising side-path along the way of signs, though perhaps it has some theological interest.

3. See the Stjernfelt-Deely Exchange 2006.

4. Poinsoot 1632: *Tractatus de Signis* Book I, Question 3; Peirce 1904: CP 8.332.

what it signifies to or for some third, and *grounded* in the equiprimordiality of the being of relations with the being of material individuals or substances—cannot exist independently of individuals as interacting, any more than those individuals can exist apart from their interactions or without provenating in and through their interactions intersubjective relations. Being in whatever mode and relation as a mode of being are coextensive (which is why signs can take us “everywhere in nature”⁵), but being is more than the being of relation; and even the being of relation is wider than the being of *triadic* relation. So all signs in their proper being are triadic relations, and all relations are suprasubjective respecting the being of individuals related, but not all relations are sign relations: whence “the universe is perfused with signs but does not consist exclusively of signs”, as I would word a final formula for expressing this matter.⁶

But consider how important semiotics has come to show semiosis to be. Semiosis, the action of signs, is the key to how the future, by an indirect and indeterministic influence on the present, rearranges the relevance of the past; so that not only is semiosis at the heart of human understanding, but even the physical evolution of the early universe in the direction of being able to support life, together with the subsequent evolution of life itself, is no longer a pure question of chance and *vis à tergo* (as such authors as Dawkins⁷ and Dennett⁸ try to argue). All these processes of development as an “upward” movement in nature require to be understood as involving the action of signs in their proper and distinctive *relational* being as signs.

Yet if this be true, if semiosis is a basic process at work somehow in all of nature, and if indeed *all thought*, not just human intellectual thought, is in signs, then how is it that semiotics—the awareness of semiosis—is such a late-comer in the theater and repertoire of human knowledge? And why, when the human animal finally did, in the mid-20th century, begin to start to commence to thematize the problem of how to understand the workings of signs—why did the majority so engaged see the project initially and almost exclusively in terms of human language and culture?

2. The Difficulty of Realizing the Ubiquity of Signs in Human Awareness and In Nature

That which is closest to us is the most difficult to perceive. Nothing is closer and more intimate to the experience of all animals than the action of signs. Whence it is that the

5. Emmeche 1994: 126.

6. See Peirce 1905b: CP 5.448; Deely 1994: 160, Gloss 40 on Para. 265.

7. Dawkins 1976, 1989, 2006.

8. Dennett 1995.

action of signs is among the things of which it is hardest for us to become thematically aware, and hence will be among the last that we will realize as providing an object of inquiry. Here I am only expressing a summary agreement in this matter with Charles Peirce:⁹

It is extremely difficult to bring our attention to elements of experience which are continually present. For we have nothing in experience with which to contrast them; and without contrast, they cannot excite our attention.... roundabout devices have to be resorted to, in order to enable us to perceive what stares us in the face with a glare that, once noticed, becomes almost oppressive with its insistency. This circumstance alone would be sufficient to render philosophical observation difficult—much more difficult, for example, than the kind of observation which the painter has to exercise. Yet this is the least of the difficulties of philosophy.... Quite the worst is, that every man becomes more or less imbued with philosophical opinions, without being clearly aware of it.... But even if they are right, or nearly right, they [i.e., the opinions thus arrived at inconsciously or quasi-inconsciously] prevent true observation as much as a pair of blue spectacles will prevent a man from observing the blue of the sky.... The more a man is educated in other branches, but not trained in philosophy, the more certain it is that two-thirds of his stock of half-conscious philosophical opinions will be utterly wrong, and will completely blind him to the truth, which he will gradually become unable so much as to conceive.... And by a beginner in philosophy I wish to be understood as meaning, in the case of an educated man, one who has not been seriously, earnestly, and single-mindedly devoted to the study of it for more than six or eight years. For there is no other science for which the preparatory training requires to be nearly so severe and so long, no matter how great the natural genius of the student may be.

The problem is compounded by the fact that signs in their constitutive being as relations are invisible to sense, for the senses can be directly aware only of material objects that are related (sign-vehicles), not of the signs themselves (the triadic relations that make the material objects of sense-experience come to be called signs in the first place). Thoughts, that is, psychological states as sign-vehicles, are *even harder* to realize in terms of semiosis; for here *even the sign-vehicles* and not only the relations they support are not directly accessible to sense.¹⁰ The semiosis most intimate to us is the most imperceptible element in the whole of our experience.

9. Peirce 1901: CP 1.134

10. "The word 'sign' when applied to the concept", grants Maritain (1959: 389), "does not exactly leap to the tongue", even though it marks a critical step forward in technical exposition.

Aristotle made the point that not everything that appears to us an individual entity really is an individual, but everything that really is a natural unity within a species is a substance. Whence “substance” is a category of being that must be understood, but cannot be directly perceived as such by sense. The same is true of relations as suprasubjective realities, but even more so: for we can at least perceive and form direct images of individuals, even if not of substance as such; but we cannot at all lay before the eyes a visible analogue of what a relation is, only the consequences of changing relations. No wonder that the philosophers in general have had such a difficult time in realizing the singular reality of relations as the only form of mind-independent being which remains exactly what it is essentially even when circumstances render it mind-dependent! Everything that contributes to the difficulty in understanding the singular reality of relation as a mode of being contributes every bit as much to the difficulty in understanding what constitutes signs in their proper and distinctive being. For, since all signs have their proper being in relations, signs cannot be understood apart from relations, even though not all relations are signs: and relations are not the whole of being.

2.1 Seeing the Whole of Being: Subjectivity, Suprasubjectivity, Intersubjectivity, Objectivity

Recall Aristotle’s response to the idea that the whole of reality is simply One and the appearances of Many in this respect are illusory:¹¹ “The world is either one or many, but of the many each is one.”

2.1.1 Subjectivity, at the base of intersubjectivity

It is not an illusion that there are irreducibly many different things in the world and not simply one substance with varying manifestations, he considered. But in order for there to be *many* there have to be several *ones*. Diversity, in other words, to be “real”, requires many ones; and these ones thus are subjectivities—things separate from one another, existing in themselves. Distinct natural units, true “individuals”, are what Aristotle called substance. A substance is a *subject of existence*, the prime instance of subjectivity. Yet he also pointed out that subjectivity is only *relatively* and not *absolutely* independent, for in addition to substances with their characteristics or individuating accidents there are also *relations* without certain of which subjects of existence (however else they may vary) *could not exist at all*. Even substance is relative, not in the sense of *being* a relation, but in the sense of *needing relations in order to be*, so that, as Ratzinger has put it,¹²

11. Aristotle c.348–347BCa: *Metaphysics*, Book III, chap. 4, 1001b6.

12. Ratzinger 1970: 132. See also Copley 2004. And cf. Poinot 1632: *Tractatus de Signis*, “Second Preamble”.

alongside substance, and interweaving substances into the universe as a whole, “relation is discovered as an equally valid primordial mode of reality”. No substance can be without involving itself in relations; no relations can be independently of substances. Individuals are relational beings, but relations are not individuals.

So far so good, but a problem remains: as the 21st century goes forward, perhaps no word is more used and less thought about than “relation”. However, it is crucial to semiotics that this cease to be the case, for a so-called “sign” of the sort one can hear or point to that fails to connect the signified to some third party fails *ipso facto* actually to be a sign.¹³ Thus the sign has its being in a triadic relation, a relation connecting irreducibly three terms; but, while all relations are over and above the subjectivity of individual being, not all relations are triadic. The situation bears examination.

2.1.2 *The being of relations: suprasubjectivity and intersubjectivity*

The discussion of relations, if not of signs, begins in the time of Plato and Aristotle, and it is Aristotle especially who focuses the question of whether there is a mode of being properly called “relation” which is irreducible to substance with its inherent accidents.¹⁴ Now “substance”, as we have just indicated, means primarily an individual subject of existence (like you or me, like fido or a pet cat, like a rose bush or an elm tree), while “accident” means first of all the inherent or identifying characteristics which set off one individual from another. So the combination of substance + accidents in this sense means quite simply SUBJECTIVITY, everything that separates one thing from another.

By contrast, RELATIONS connect or unite otherwise distinct subjectivities. “Far or near”, notes Poincot,¹⁵ “a son is in the same way the son of his father”. Causality depends upon proximity; not so the pure relations which follow upon causal interactions. In the order of physical being, or “nature” as what obtains prior to and independently of the advent of human beings, Aristotle’s argument was that relations exist dependently upon the subjective characteristics of individuals, but in their being as relations they are not reducible to the subjectivities on which they depend: they are *over and above* those subjectivities, and precisely over and above those subjectivities as linking or joining them as *otherwise* separate. So one day your parents had sex, and you resulted. That activity on your parents part was thus *causal*, but the *relation* it gave rise to, linking you singularly to that man as father and that woman as mother, survived the causal activity

Article 1, esp.80/1–11, where “distinguitur ab omni entitate absoluta” is understood as “distinguished from every subjective being” or “from the being of every subjectivity”.

13. See “Ne suffit jamais un corps pour faire un signe” (Deely 2002a) and “A sign is *what?*” (Deely 2004b).
14. The Greek texts of Aristotle on this point of relation as a mode of being irreducible to the subjectivity of individuals related are cited and discussed in the Editorial Afterword. (Deely 1985: 473–479, esp. notes 112, 113, and 114)
15. Poincot 1632: Tractatus de Signis, Second Preamble, Article 1, 85/8–12.

that the relation in question presupposed but is clearly distinct from (clearly, because the relation obtains long after the causal activity in question ceased).

While substance and accidents thus are subjective, relations by contrast are INTERSUBJECTIVE, between subjects. So far, moreover, we are only considering the situation of relation in the order of the physical universe independently of the existence of any animals.¹⁶ Note in particular that while there cannot be something *between* subjects (something “intersubjective”) without that something being *over and above* the subjects related,¹⁷ neither can there be something between subjects in this sense of “intersubjective” unless both subjects here and now exist. Intersubjectivity presupposes subjectivity at both “ends”, so to speak, of the relation.

But what about one-sided relations, to subjects that may have once existed but don't exist here and now any longer, as is the case with someone's fascination with Napoleon? And even more problematic, what are we to say about relations to what has never existed—think of poor Ponce de Leon wandering about the Florida Keys in search of the Fountain of Youth, and the like.

2.1.3 *How objects differ from things even when they are one and the same existent*

So we come to the consideration of *objects* which may or may not be things, but cannot be objects except as terminating a relation from a knower (whether virtually, as in physiosemiosis and phytosemiosis, however, or actually, as in zoösemiosis and anthrosemiosis). To make headway here, it becomes necessary to realize that of the three components of a relation—the supporting base of the relation in subjectivity, or fundament; the *relation itself*, a suprasubjective mode of being; and the terminus of the relation, that to which the relation points and with which it connects the subject “in” or upon which the relation is founded—it is the relation itself that makes the fundament to be a fundament and the terminus to be a terminus.¹⁸ Consider two triangles similar on the basis of their shape: the shape is subjective, part of the individuality of each triangle. Yet the shape of the triangle, whether considered as founding or as terminating a relation of similarity, remains unchanged in its subjectivity when the other triangular thing ceases to exist. Thus, for two triangles to be similar, there must be two triangles. But if one triangle is eliminated, the remaining triangle is no longer related thereto, nor is its unchanged shape the fundament or terminus of the no-longer-existing relation. This consideration, based on an example of a merely dyadic relationship, however, holds for the case of relations as relations, and hence also for triadic relations.

16. See the “Editorial Afterword” to Poinso's *Tractatus*, Deely 1985: 472–475.

17. See the wholly italicized sentence on this point below (in subsection 2.1.4).

18. See *Intentionality and Semiotics*, Deely 2007: 119–136, esp. 125–130.

Enter animals. Animals are distinguished by having not merely a physical but also a psychological subjectivity. Psychological subjectivity is distinguished by *always* giving rise to relations of apprehension (both cognitive and cathectic, by the way); but these relations now are never dyadic, but always triadic, for their terminus stands as something revealed to or for the animal whose psychological state is in question. The direct terminus in the case of a triadic relation, however, is precisely a *significate*, an “object signified”, as we say under the influence of modern philosophy—but then without realizing that the qualification “signified” here is actually redundant, *for there is no other kind of objectivity*. Whence, just as to every foundation or fundament corresponds a terminus, while it is the suprasubjective reality or character of the relation itself which makes a fundament as such or terminus as such, so a relation founded upon (or provenating from) psychological subjectivity will necessarily have an *objective* terminus (whether actually or virtually, as above noted), regardless of whether that terminus *also* has a subjective being or not.

So one lover looks for another after an earthquake, not knowing whether that other is alive or dead, any longer existent or not: if no longer existent, the lost one terminates the relation purely objectively; but if still alive, the lost one terminates the relation subjectively as well as objectively, the worry on the searching lover’s part being *not to know which* (actually an all-too-normal condition among animal kind).

So we see that the essential being of relation is not necessarily intersubjectivity but much rather SUPRASUBJECTIVITY.¹⁹ And suprasubjectivity, when grounded (or, rather, founded) in *psychological* subjectivity, is the cause of or reason for the difference between objects existing actually as object (whether that object be also a thing existing subjectively or intersubjectively), and things (which need not be objects in order to be). Objective relations differ from mere physical relations (such as relations between cause and effect) by involving thirds, irreducibly so; while in nature apart from animals “thirdness” can be degenerate and virtual rather than actual. In the order of phytosemiosis actual thirdness may occur, but it is never purely objective. Purely objective reality as actual rather than virtual would seem to occur only in the world of animals, and is *recognizable* for what it is (thanks to “metasemiosis”) only in the world of human animals—semiotic animals, as we now put it.

Now a dyadic physical relation of cause and effect, say, can as such be assimilated to an objective relation and so come to be known for what it is; but a sign relation *never reduces to a cause-effect relation*,²⁰ even when/if a cause-effect dyad is subsumed into a semiotic triad, as happens, for example, when clouds become for animals signs of rain.

19. Deely 2004c.

20. See Poinso’s *Tractatus* of 1632: 137 note 4.

2.1.4 *Suprasubjectivity and objectivity in contrast to physical environment*

All right. Now we come to the lifeworld of animals, the Umwelt, or “Objective World”, where things not only exist “as they are ‘in themselves’” (bumping an empty cardboard box in the dark will not likely hurt you, whereas bumping into the point of a sharp metal object normally will), but also exist, and most importantly, “as they are ‘for the animal’”. Thus the Umwelt is a “creature of experience”, a tapestry woven of relation existing suprasubjectively always, but intersubjectively only in part. And the relations generically specific to the Umwelt, moreover, are always triadic—always sign-relations, even when involving dyadic relations of cause-effect interactions.

Here we discover not only that objects differ from things in being necessarily rather than contingently involved in relations of awareness, but also that “object”—far from being a mere alternative or synonym for “thing”—is simply a *disguised way of saying “something signified”, or “significate”* (this last being a term respecting which English dictionaries for some reason tend to be averse). We discover also not only that all thought is in signs, but that so also is all sensation—while distinctively within cognition and irreducibly (or “irremediably”) involving causal (dyadic “cause-effect”) interaction between an animal’s body and material bodies of the physical environment surrounding the animal’s body—a matter of sign-relations.²¹

In the physical universe prior to life, it seems to me that we have only degenerate and virtual Thirdness, yet sufficient to move the environment through its physical causal interactions in the direction of introducing and supporting life. After the advent of life virtual thirdness becomes actual, yet remains in the order of intersubjectivities, i.e., relations as intersubjective, but three-way and not only two-way.²² With the advent of animals thirdness becomes not only virtually but actually objective as well as physical. *The suprasubjectivity of relations, in contrast to and presupposed by intersubjectivity, emerges as the irreducibly essential nature of their singular being, inasmuch as intersubjective relations exist only under certain existential conditions which do not define the whole range of circumstances within which relations that are suprasubjective but yet not intersubjective can obtain.* Suprasubjectivity thus proves to be *presupposed by intersubjectivity, but not reducible to intersubjectivity.* And thirdness, the “reality” enabled by semiosis, while normally involving sensible things, yet is *itself* never directly sensible. *Thirdness presupposes the suprasubjective being of relation as understandable but not directly perceptible (not even when it obtains intersubjectively as well).* Only human animals

21. See the *Tractatus de Signis* (Poinset 1632), Book I, Question 6, esp. 205/35–209/32, 211/29–212/34 and to a lesser extent 213/8–22. See further Deely 2008: Chap. 6, on the distinction between first and second-level instrumental signs, the latter of which (“sign” as originally defined by Augustine in the late 4th century) is actually at a third level of signification respecting concepts.

22. See Krampen 1981; Deely 1986.

with their root capacity for language as Sebeok identifies it,²³ traditionally termed *intellectus* or “understanding”;²⁴ can come to know that there are signs (whence arises the postmodern definition of human beings as *semiotic animals*).

In coming to know that there are signs and that their activity—semiosis—pervades nature, not only as humans are part of nature (the “semiological fallacy”, as we might call it), but throughout the whole of nature, semiotic consciousness works a transforming effect upon human responsibility. Heretofore conceived primarily in cultural terms, as the responsibility each individual “as human” has for their own actions, or as the responsibility an individual has by reason of a position in society, it now becomes apparent that “human responsibility” extends to the whole of life, by reason of the fact that the consequences of human conduct affect the very conditions of survival not only for our own species but for all those other species as well with which our survival is bound up. A whole new vision of the “unity of nature” follows upon the acquisition of semiotic consciousness, wherein ethics itself is revealed to be a fundamentally semiotic phenomenon. Whence the appropriateness of the new term “semioethics” for the realization of the global impact and extent of the human exercise of responsibility in its species-specific conduct. We will return to this point in concluding this essay.

What needs to be emphasized at the present juncture is not yet the ethical implications of semiotic consciousness, but rather the manner in which the singularity of relation makes semiosis possible in the first place as an indirect influence of a future merely objective upon the present physically actual as well as partially objective (whether actually or virtually).

2.2 The Singularity of Relation as Enabling Thirdness

The most central point for being able to explain why signs in their distinctive action transcend nature/culture, objectivity/subjectivity, inner/outer, etc., is what can only be called the *singularity* of relations. This singularity consists in the indifference of relations, according to their own being as suprasubjective, to the various subjective and even intersubjective classifications or “divisions” of being in terms of the here-and-now reality of the physical environment.²⁵ The Latins distinguished: being as able to exist whether

23. Though the point had many anticipations in Sebeok’s earlier writings (e.g., 1963, 1978 *inter alia*), Sebeok introduced this notion of a “root sense of language” (in contrast with *linguistic communication*) most dramatically in his 1984 address of June 2 at Victoria College of the University of Toronto. Thereafter it became a major theme of his thought on questions of “language”. See Deely 2007a.

24. See Deely 2002.

25. See the *Tractatus de Signis* (Poinset 1632), Book I opening paragraphs, esp. 117/18–118/18, and (even more specifically) 118/1–10.

or not known, they called *ens reale*; being which depends on being known in order to be, they called *ens rationis*. Being as known, then, *whether ens reale or ens rationis*, is the considered meaning of *objective being* in its full actuality as objective. Thus “reality” as experienced and known is neither *ens reale* nor *ens rationis* preclusively or exclusively, but a *socially structured combination of both based initially, or “first of all”, upon the bodily type of the cognitive organism.*

2.2.1 *Objective world in contrast to physical environment: the Umwelt*

As the doctrine of Umwelt reveals, all animal experience (including its human segment), while it consists objectively of both types of being (the stars, say, as illustrating *ens reale*, the city limits of Bari—or even the stars again, but now as constellations of the zodiac upon which astrologers depend!—as illustrating *ens rationis*), does not reduce simply to either type, but requires an interweave of both. Now experience has its being as a network of relations, what Sebeok so aptly dubbed “the semiotic web”; and the strands of these relations—the threads of the fabric of experience—reveal a pattern consisting of both mind-dependent and mind-independent objectivities together forming the public “realities” which individuals must negotiate as a whole.

But, and here is the key, relation is the only mode of being found in *ens reale* that can also be found with its essence whole and unchanged in the order of *ens rationis*; and *nothing but relations constitute the order of ens rationis through and through*. These are the strands of *pure* objectivity in that semiotic web we call “experience” (or Umwelt). True, we invent fictional “substances”, such as Sherlock Holmes or Hamlet, which are indeed *ens rationis*. But their actual being as *public objects* is a pattern of relations modeled on our experience of individuals (i.e., actual substances) which are not fictional: the fictional objects in such cases *are not* what their models *are*, namely, subjective and intersubjective beings; yet the fictional objects are, as “beings patterned after” something their models as subjectivities are not—namely and specifically, *relational* in their own *positive* being. By contrast, mind-dependent relations patterned on our experiences of intersubjectivity *are* in their positive being what their patterns are also. Whence *ens rationis* as a whole, in its full extent as contrasted with *ens reale*, includes at bottom *nothing but* “beings patterned after”, pure relations; while pure relations are *also* found *intersubjectively* in the order of *ens reale* along with subjective being (along with individuals and the inherent characteristics of individuals). Objectivity, thus, the semiotic web of “the universe as experienced”, is a mixture of subjectivity and suprasubjectivity, but of the suprasubjective elements some are *also* intersubjective and some *only* suprasubjective, the whole meanwhile remaining throughout (*as* suprasubjective, involving subjectivities and intersubjectivities objectified but never reducing thereto) public in principle.

2.2.2 *The place and role of the Innenwelt*

We see then that experience, in its difference both from the subjectivity of the individual experiencing (even while modifying and depending upon that subjectivity) and from the subjectivities and intersubjectivities found within the world of things objectively experienced as independent of the experiencing, along with the aspects of these objects which turn out to purely objective (like the false accusation of “being a spy”, when it is false; or “being a witch”; etc.), is a suprasubjective network or web of relations founded upon the psychological states (the “*passiones animae*”) of animals, subjective qualities of the individual animal, indeed, but consisting no less in the relations thence provenant incorporating within their termini as a whole *also* subjective characteristics of things in the environment along with some of the relations provenant therefrom *independently* of the qualities of the Innenwelt in its contrast with the Umwelt. Thus the suprasubjective web of relations both between Innenwelt and Umwelt and also within the Umwelt itself are, as relations, indifferent to the circumstances that make, for example, one and the same relation at one time “real” and another time “unreal”, but “objective” equally in both cases. The line is not fixed!

Thus the suprasubjectivity of relations is the basis for the prior possibility of semiosis as an action of signs verifiable within the orders of *ens reale* and *ens rationis* alike, yes, but, far more importantly, verifiable as able to pass back and forth between the two orders with positive character as triadic relation unchanged. For triadic relations, while differing in their irreducible triadicity from (even when including) dyadic relations (of cause/effect, say), yet participate wholly and necessarily in the being definitive of every and all relation as relation, which is suprasubjectivity.

So the dinosaur bone, once actually related to a dinosaur in the order of *ens reale*, here and now has lost that relation, while yet continuing to exist as fundament therefor (and here and now a kind of “substance” or natural individual in its own right). And should the fossil bone fall into the hands of a trained paleontologist, the structure of the bone, itself a subjectivity, will yet be able to “tell its distinctive story”, for the paleontologist on the basis or fundament of the bone will recreate as *ens rationis* the very same relation of bone to dinosaur which formerly (i.e., under other circumstances, the circumstances of *temps perdu*) was an *ens reale*.²⁶ The circumstances under which any given relation is formed, in short, are what determine whether the *relation itself* is *ens reale* or *ens rationis*. The social construction of reality as more than bare *ens reale* depends on this, the basis indeed of the prior possibility of semiosis, as I said above.²⁷

26. See the Editorial Afterword to Poinsett's *Tractatus*, Deely 1985: 475–476, and 502 note 147.

27. And cf. *Tractatus de Signis* 60/26–44.

2.2.3 Whence semiotics takes its “point of departure”, finds its “proper standpoint”

It is the being of relation as suprasubjective, thus, relation as a singularity within being, that provides the standpoint for the doctrine of signs as transcending the divisions of subjectivity and objectivity alike, inner and outer, nature and culture.²⁸

Very interesting is the fact that relation viewed in the exclusive perspective of *ens reale* turns out to be the “least” form of being, *ens minimum*, the hardest to recognize at all as *reale*,²⁹ because admitting of no *direct* sensory instance, perception giving us related things but never relations as distinguished from related things: only intellect can make that separation. Language, in the secondary sense of verbal language (or, more generally, linguistic communication), turns out to depend upon this very ability of intellect to manipulate relations as irreducible to related things.³⁰

Moreover, when we consider that finite being is more than *ens reale*, and far more the higher we ascend the semiotic (or “evolutionary”) ladder from nonliving matter to living matter to animals to semiotic animals to semioethical animals. *Being*, finite being, does not reduce to *ens reale* but finds its highest reality among material creatures in the objective world of human existence and life—the *Umwelt* (or *Lebenswelt*, if you want to insist on the difference between semiotic animals and semiotic animals) which does irreducibly consist of a mixture or admixture of *ens rationis* with *ens reale*, particularly in the suprasubjective character of experience as presenting to us the world not only as it is but also as it could be and even *should* be, if we may speak so boldly. Which of course is the point at which ethics transforms into semioethics, in the sense that the latter presupposes the recent advantage of a community of inquirers having attained to semiotic consciousness (although even incognizantly “ethics” was really “semioethics” all along).

Ens minimum at the moment of the “big bang”, but already then making communication possible and semiosis virtual—such is the singularity of relation. As matter complexified, forming star systems and planets on the way to introducing life, relations become increasingly important, till finally, at the human level, they virtually make possible *truly human life and personhood* by enabling and constituting the difference between authenticity and inauthenticity in social affairs. Interdependency is not only real already at the level of pure *ens reale*; but community and personhood transcend subjectivity and intersubjectivity precisely by consisting in a network of now indeed of

28. And it is the privilege of Poincaré to have been the first to say this in opening his *Treatise on Signs*, 117/28–118/18.

29. Yet pure relation, this very *ens minimum* we are told (by Augustine and Aquinas), constitutes the being of each one of the three persons of the yet substantially one godhead, whose inner life consists of a communion of persons. Thus communication wherever it occurs, in the finite order or in God, consists in pure relations, so that what is least in the finite order of *ens reale* is greatest in the infinite being of God. Such an irony!

30. Deely 1980 and 2002.

semiotic relations. From *ens minimum* in the “big bang”, relations ascend to *ens magni momenti* in the living world, and *ens momentissimi magni* with the achievement of semiotic consciousness, “metasemiosis”, at which point they enable (semio) ethics as the final whole of human existence, recognizing its responsibility not only for its own actions but for the whole of—precisely—the things in themselves making up the reality of the physical surroundings of the planet sustaining semiotic animals as part of the biosphere as a whole.

Again we shall return to this point in our conclusion.

3. The Necessity of Linguistic Communication for Developing Any Science, Including the Doctrine of Signs

That part of semiotics which studies signs and the action of signs specifically in the realm of human culture has been called “semiology”. For several generations of thinkers in the 1960s and after, semiology was thought to be the whole of the cenoscopic science of signs; and the primary focus of these “semiologists” was usually, among cultural artifacts, linguistic communication, called “language” and conceived in terms of the conventional or “arbitrary” aspect of the signifier/signified (“*signifiant/signifié*”) connection, as emphasized in the work of Ferdinand de Saussure.³¹

The whole enterprise was largely misguided from the first, and the question I want to address is: Why would so many keen minds be led down a wrong path for so long? Peirce, outside professional circles of philosophers, was ignored by and large in the heyday of semiology, and it was not until the intervention of Sebeok in 1963, with his pioneering notion of zoösemiotics, that semiotics began to emerge not simply as an alternate name for what semiology was doing, but as the *proper name* for any doctrine of signs that aimed to take account of the full extent of semiosis, and not delude itself into thinking that only human beings make and make use of signs, and that only within the realm of culture properly speaking are signs truly at play as signs.

3.1 Why did Semiology Precede Semiotics When the Need to Study Signs First Became Generally Accepted?

Here I want to examine, or try to outline at least, the “common sense” grounds which enabled the semiology in the misguided sense—that is to say, semiology conceived not as a part within the larger whole of semiotics, but rather as the whole study of signs and sign action complete unto itself—to flourish so widely and for so long.

31. Saussure 1916. See Deely 2001: Chap. 16, “Semiology: Modernity’s Attempt to Treat the Sign”, 669–688.

The first reason the Saussurean proposal for semiology had an immediate and general appeal, I suggest, is the engrained modern philosophical habit to think in terms of dyads. Sign/signified is an embedded way of thinking of signs by the 19th and 20th centuries, and words, such as dictionary items, are, by that same period, the principal example or instance of signs: there are words, and “what they mean”—signs, with their significates (although “significate”, curiously, is a term to which dictionary-makers have been highly resistant).

Missing from this equation, however, is precisely *that on the basis of which* words can mean what they mean: the linguistic habits of the reader of the given dictionary. If I know nothing of English and see the word “crow” in an English dictionary, although the “meaning of crow” is spelled out right there before my very eyes, the word remains “meaningless” as far as I am concerned. On the other hand, if I am a so-called “native speaker” of English (never mind that there is no more such a thing as “native speaker” than one can be “born Christian”) and I see the word “crow” in an English dictionary, I have no trouble at all seeing too “what the word means”. What makes the difference? Neither the sign nor the signified, but a third factor, a background factor neglected in the purview of “common sense”, namely, what Peirce calls the *interpretant*, the “third factor” on the basis of which a sign succeeds to direct our attention to whatever it is that is signified. In this case, of course, the interpretant is the habit-structure common to speakers of English. But interpretants are not limited to human animals (though linguistic interpretants are), and indeed, as Peirce famously said, need not even be mental. (But that is another story.)

If one looks only at the sign/signified dyad within language, the relation between the two appears indeed “arbitrary”, “unmotivated” by anything intrinsic to the sign. But once one adverts to the consideration that, absent the habit-structure enabling the sign to signify, the sign fails in its signifying function, the illusion of arbitrariness begins to fade. Of course the meaning of a word can begin in a stipulation; but a stipulation to succeed begets a habit among linguistic communicators, and unless that habit takes hold the stipulation goes a-glimmering. And even the attempt at stipulation that “X shall mean Y” presupposes in the consciousness of the stipulator awareness of Y, an awareness which he or she must communicate to another in discourse, on the basis of those singular psychological states that we call “concepts”.

In Saussure all of this is blurred, for he himself conceived of *both* signifier and signified as psychological realities, rather than as external things, such as written words and material things known in their externality. That in Saussure and in semiologists generally the sign is conceived of dyadically and primarily (if not exclusively) linguistically is a simple matter of fact. As to “common sense”, the dyadic idea of sign and signified seems evident, so to semiology the analysis of sign in terms of *signifiant/signifié* appears clearly as the path to be followed.

But it comes down to this, as far as I can see. We have already considered above the question of why the study of sign activity became so late a focal point of intellectual concern in philosophy's long history, even though nothing at all is more dependent upon the action of signs than that very history! When, in the early-to-mid 20th century, the question of the sign—what it really consists in and how does it act—finally did become a central focus of inquiry in the general intellectual culture, it took the initial form of “semiology” (i.e., a culturally centered, linguistically oriented study): in the first place, because “metasemiosis” occurs *only in that sphere*; and, in the second place, because *apart from linguistic communication* there is no entryway into that sphere as such, where alone the study of signs—any signs—becomes possible.

So there is again some “common sense” grounds for thinking that language as linguistic communication—the dominant and species-specific means of human communication which alone makes culture as distinct from and in some ways superordinate to (though more accurately assimilative and elevative of) animal social organization—is the main, if not the whole, show when it comes to the action of signs. But, as has so often proved to be the case with “common sense” (in scientific matters cenoscopic and ideoscopic alike), just as the revolution of the sun about the earth turned out to be a zoösemiotic illusion within anthroposemiosis, so too has the impression that linguistic communication and human culture contains the whole story of the action of signs in the universe proven to be yet another anthroposemiotic illusion.

3.2 The Linguistic Approach, Necessity and Limitations

To study anything, we perforce take our departure from within anthroposemiosis. Anthroposemiosis transforms the animal Umwelt, a world of objects closed to the difference between objects and things, into a Lebenswelt, an objective world wherein human understanding can avail itself of an ability to investigate “the way things are”, along which path what is first discovered is the most basic difference within objectivity so far as science is concerned. That most basic difference can be described thus. On the one hand are objects of experience which reduce to our network of social interaction as grounding our experience of them (much the way that the habit of speaking English underlies our ability to recognize words in dictionaries)—such as flags signifying cities, counties, or countries; the movement of the sun around the earth; or boundaries separating counties, states, or countries; and the like. On the other hand are objects of experience which do not reduce to our experience of them, such as rocks and stars, lions and tigers, and the physical world in general.

The medieval Latins, as we saw above, called the former *nonens*, also “*entia rationis*”; the latter they called *ens*, also “*ens reale*”. Being interested above all in “reality” (*ens reale*), and deeming that mistakenly for the whole story of “how things are”, they—the

Latins—neither emphasized nor realized the point (at least not until, as the Latin Age drew to its end, Poinsoot made the point explicit³²) that whoever would study the being and action proper to signs required to establish a standpoint *superior to*, a standpoint *transcending*, the difference between *ens* (as *ens reale*) and *nonens* (as *ens rationis*). For while the question of signs perforce concerns a “mode of being” (the being proper to signs), that mode of being involves the singularity whereby relation *alone* among the modes of *ens reale* remains unaffected in its positive structure as objectively terminating suprasubjectively regardless of changes of circumstances which make a relation as terminating one moment to have a terminus that exercises also a mind-independent existence and at another moment (often, needless to say, to the surprise of the knower) to have that same terminus but now possessed of existence only mind-dependently. The change affects only the subjective or intersubjective status of the terminus (i.e., its status in *ens reale*), not its objective status as significate. Not every terminus is a significate, but every significate is a terminus, regardless of its further status in the order of *ens reale*.

Whence, while the being of signs is indeed a question of being, it is at the same time a question of *more than being*, for the “being of signs” as triadic relations precisely enables an *action of signs* that results in *nonbeing* as well as being. Deception among animals depends upon it, as does outright lying among human animals; but a future at variance with the limited possibilities of any given present in “*ens reale*” depends upon it too—and hence the very possibility of what has heretofore been called “evolution”. Concerning the irreducibility of objective world (Umwelt) to the physical environment can well be applied a formula stated by Maritain in a different context:³³ “the paths of non-being, once one has, by a kind of inverted intuition, become conscious of it and of its formidable role in reality, are as difficult as those of being.”³⁴ It took Sebeok’s assimilation of the Umwelttheorie of Jakob von Uexküll³⁵ for semioticians fully to recognize that the objective world of animal experience is, in every case, a species-specific world composed of an interweave of mind-dependent and mind-independent relations in an ever-changing proportion and mixture.

3.2.1 What language as semiosis consists in

So, to “begin at the beginning”, we perforce take our departure for the study of signs (as for anything else) from within anthroposemiosis; but insofar as anthroposemiosis is *semiosis*, our first question equally perforce has to bear on *what semiosis is*, for the linguistic

32. Poinsoot 1632: opening paragraphs of Book I, Question 1, of his *Tractatus de Signis*.

33. Maritain 1966: 32.

34. Precisely here is the place where semiotics assimilates the ethical insights of Emmanuel Levinas (e.g., 1974) that, in Petrilli’s summary (2008, Essay 7), “the being of social communication has an *otherwise than being*”, where “being” means *ens reale*.

35. Cf. Deely 2004a.

communication upon which human animals so crucially and species-specifically rely is not an autonomous realm, as Analytic philosophers of the early and mid-20th century deluded their successors into thinking, but a question of one type of sign among (many) other types, including types which linguistic communication presupposes and depends upon.³⁶ So even if we wish and in some sense must begin with linguistic signs, among the first questions to be faced is “the place of linguistic signs among signs in general”, as Todorov so well noted.³⁷

Anthroposemiosis is semiosis first of all, but linguistic communication too “first of all”, if by “first of all” we mean not merely the “logically prior” but the *species-specifically distinctive*. The problem is to balance these two senses of “first”. Let us, then, start where we must in order to communicate with others at the level of metasemiosis, with language.

Even though language is the indispensable entry and portal to full participation in any Umwelt as species-specifically human (that is to say, as consisting of a cultural environment capable of supporting inquiry both coenoscopic and ideoscopic into the nature of things), to make of linguistic analysis the very substance of philosophy was among the final delusions of modernity, for the reasons first suggested by Todorov 1977³⁸ and spelled out at length by Deely 2006, namely, that language itself is, for all its grandeur and centrality to human identity, life, and culture, but *one system of signs among others*, one which achieves autonomy only *relatively* and while *remaining dependent* in the main on the elements of zoösemiosis without which even the highest achievements of speculative discourse in science and philosophy would implode.

What makes language in the sense of linguistic communication possible in the first place is the distinctive capacity of human understanding to objectify realities which cannot be reduced to sensory instantiation. In short, the same ability which enables human animals to wonder whether God exists is the ability which enables them to manipulate relations in their difference from related things, and it is this ability to handle cognitively relations in their difference from related things that make possible stipulations of meaning exapting the biologically underdetermined human Innenwelt to express new potential arrangements which are and must often³⁹ remain invisible to direct sense perception of their “reality”. Communication takes place in the realm of related

36. Deely 1980: “The Nonverbal Inlay in Linguistic Communication.”

37. Todorov 1977: 40. See Deely 2006: “The Literal, the Metaphorical, and the Price of Semiotics.”

38. Todorov 1977: 40.

39. An example of an exception would be an hypothesis concerning the existence of some previously unexperienced physical reality, the way that the planet Neptune was originally proposed theoretically and then actually observed by human eye. By contrast, a new system of government can be “put into place”, but that system cannot be directly observed except in its “parts”—people and buildings—assigned to official status within the in-itself invisible system consisting “in itself” in pure relations. Dogs can bite Presidents, but not *as* Presidents!

things; but linguistic communication bears more on the relations themselves than on the things—often precisely in order to introduce arrangements different than what sense can directly manifest.

3.2.2 *Demonstrating the inadequacy of linguistic analysis as an autonomous approach to philosophical questions*

The development of semiotics as the doctrine of signs, that is to say, as a coenoscopic rather than an ideoscopic science,⁴⁰ gives us one of the clearest reminders (if one still be needed) that, as far as science and philosophy are concerned in their proper dimensions as investigative of realities and explicative of the results of those investigations, the “meaning of a word” cannot possibly be either a simple stipulation of “what I want it to mean” (what we might call “the Humpty-Dumpty fallacy”) or an exposure of its “use in a language” (“the Wittgenstein fallacy”); for both stipulation and established customs of use are at the service of something else, to wit, the very nature of the object of the investigation and the determination through that investigation of what in the object belongs to it independently of its relations to us, and what belongs to it precisely in consequence of the network of relations mind-dependent as well as mind-independent into which it perforce enters as *object*—something existing at least in part as cognized or known—in contrast to the being proper to “things” as what are what they are whether or not they are a part of any finite consciousness.

Consider what a dead-end results when we take the linguistic expression or term “sign” as a dictionary item and make that (“its use in a language”) as the point of departure as such for would-be semiotic analysis. Nothing in the nearly four half-page columns on p. 2820 of our 1971 edition of the *Oxford English Dictionary* (the latest electronic edition does not improve on this point) suggests anything like what has become common knowledge among semioticians today—thanks not to dictionaries but to the work of Peirce and, more recently, Peirce in establishing the purely relational mode of being proper to signs in their distinctive being. “In its genuine form”, Peirce advises us,⁴¹ “Thirdness is the triadic relation existing between a sign, its object, and the interpreting thought, itself a sign, considered as constituting the mode of being of a sign”. Indeed, we now realize that what the dictionaries heretofore all but exclusively treat under the entry “sign” are what semiotics today recognizes rather as but the vehicle occupying that one of the three positions involved in signification which presents something other than itself to or for some third. “Being a sign” in the dictionary sense of *sign-vehicle* is in itself not a sign at all, inasmuch as what occupies the foreground position in question within

40. Bentham 1816; Peirce 1905: CP 8.199; Deely 2008 throughout.

41. Peirce 1904: CP 8.332, bold face added; Peirce 1632: 1.3 155/25–29, again bold added: the irreducibly triadic relation “is the proper and formale rationale of a sign”.

a triadic relation, namely, the *representamen* (to use Peirce's felicitous coinage) can on other occasions and in other contexts occupy instead either of the two other positions united in the sign's relation, namely, that of the *significate* (or "object signified", as we say redundantly) or that of the *interpretant*, the "third" to or for whom the object signified is signified by the sign (vehicle).

But remove the triadic relation, the being formal and proper to the sign, and all three—representamen, significate, and interpretant—either cease to exist (insofar as they are purely objective realities) or at least fall back into the bare existence of things which have no necessary relation here and now to a finite knower in order to be as elements of the physical surroundings. Under such circumstances, nonetheless, where there may be no sign *actually* (i.e., fully as genuine Thirdness), yet there remains the representamen active as a sign *virtually*, as we will see both Poinset and Peirce to say, e.g.:⁴²

while no Representamen actually functions as such until it actually determines an Interpretant, yet it becomes a Representamen as soon as it is fully capable of doing this; and its Representative Quality is not necessarily dependent upon its ever actually determining an Interpretant, nor even upon its actually having an Object.

In such a case, therefore, the "being of the sign" is a triadic relation only *virtually* rather than actually, and that being is, at least for the moment, and under the circumstances reduced (as it were) to such being as the representamen has in its interaction with the physical surroundings as one "thing" among other "things". As Peirce puts it,⁴³ the triadic

42. Peirce c.1902/1903: CP 2.2757; Poinset 1632: 126/3–22 makes this same point as follows: "...sufficit virtualiter esse signum, ut actu significet. Et instatur manifeste in hac: B actu causat et producit effectum, ergo actu in re est causa; nam ipsa causa non existens in se, per virtutem a se relictam causat et formaliter causat, quia effectus tunc formaliter producitur. Sic existente signo et significatione virtuali formaliter ducit potentiam ad signatum, et tamen formaliter non est signum, sed virtualiter et fundamentaliter. Cum enim maneat ratio movendi potentiam, quod fit per signum, in quantum representativum est, etiamsi non maneat relatio substitutionis ad signatum, potest exercere functiones substituentis sine relatione, sicut servus vel minister potest exercere operationes sui ministerii etiam mortuo domino, ad quem dicit relationem, et in qua formaliter consistit ratio servi et ministri."—"...it suffices to be a sign virtually in order to signify in act. This can be readily seen in an example: X in act causes and produces an effect, therefore it is in act really a cause; for when the cause in question no longer exists in itself, through the virtuality or efficacy it leaves behind, it causes and causes formally, because the effect is then formally produced. Just so, when a sign exists and by a virtual signification formally leads the mind to something signified [which no longer exists in fact], it is nevertheless not a sign formally, but virtually and fundamentally. For since the rationale of moving or stimulating the mind remains, which comes about through the sign insofar as it is something representative, even if the relation of substitution for the signified does not remain, the sign is able to exercise the functions of substituting without the relation, just as a servant or minister can perform the operations of his ministry even when the master, to whom he bespeaks a relation, and in which relation the rationale of servant and minister formally consists, has died."

43. Peirce 1903: CP 1.542.

relation itself, therefore, must, as virtual rather than actual, “consist in a *power* of the representamen to determine *some* interpretant to being a representamen of the same object”;⁴⁴ or, as Poinset put it, “it suffices to be a sign virtually in order to signify in act”.⁴⁵

Of course, as semiotics advances and becomes familiar to more and more individuals, larger and larger groups within the various lifeworlds of species-specifically human culture, the dictionaries themselves will change and reflect new usages of “semiotics and its congeners” which will indeed, at that future time, give “linguistic philosophers” a sufficient purchase to ply their wit and analytical cleverness in ways that have ceased to be semiotically obtuse (not at all because of their “linguistic method”, note, but simply by virtue of the inevitable evolution of the language itself “in use”. But we are not at that future point, far from it; and what we need to do rather is give creative linguistic expression *de novo* to the results of investigations of the *action* of signs precisely as revealing the *being* of signs to human understanding. This will involve, to be sure, stipulations—some new ways of speaking. And it will involve too taking account of established customs of “use in the language”. But it perforce goes beyond both (*as does any properly philosophical analysis*).

So, just as we have already noted, the task simply does not and cannot reduce to either or both of those two functions—stipulation and use—upon which “linguistic philosophy” as such (the “linguistic turn” of Analytic philosophy after the later Wittgenstein) completely depends. For the question is not that which the dictionary is designed to answer (“What is a sign viewed in terms of established usage?”) but *what is a sign in its proper being*. Not only is the question of what the dictionary is designed to answer not yet the question that semiotics seeks to answer, but that very question of what the dictionary has to say is quite beside the point inasmuch as the semiotician, as Peirce put it,⁴⁶ is rather “in the situation of a zoölogist who wants to know what *ought to be* the meaning of ‘fish’ in order to make fishes one of the great classes of vertebrates”. If it were up to the linguistic philosophers, we would not to this day have been able to learn that whales are not a species of fish; nor would we have learned that signs in their proper being cannot be seen with the eye!

44. Peirce is speaking of “degenerate cases” from the standpoint of genuine Thirdness; but from the standpoint we are considering we might well call them “*pregenerate*” cases. Cf. Deely 1989.

45. Poinset, of course, had no idea whatever of the universe as an evolutionary development, yet his notion of semiosis points precisely in that direction once the myth of the celestial spheres has been exposed, which makes his remarks on the point at hand (Poinset 1632: 126/3–22, cited in note 42 above) all the more interesting.

46. Peirce 1904: 8.332.

4. In Search of the Broadest Sense of Sign

“Taking sign in its broadest sense,” Peirce advises,⁴⁷ “its interpretant is not necessarily a sign”; and here our late-modern master of the transition to postmodernity begins to grope:

we may take a sign in so broad a sense that the interpretant of it is not a thought, but an action or experience, or we may even so enlarge the meaning of sign that its interpretant is a mere quality of feeling. A Third is something which brings a First into relation to a Second. A sign is a sort of Third. How shall we characterize it?

Concepts, Peirce notes (1904 and elsewhere), if we go back to the Latins, have more than sufficiently been established as interpretants which *are* necessarily signs.⁴⁸ But what of those interpretants which *are not* necessarily themselves signs, or even “something mental”? What of the action of signs among plants, for example, where animal consciousness is not directly involved?⁴⁹ But Peirce goes even further than this, the extension of the action of signs to the whole of the lifeworld. “Who”, he asks,⁵⁰ “is the utterer of signs of the weather?”

But he goes in this same manuscript even further still: there are cases, he tells us,⁵¹ where “there must be a sign without an utterer and a sign without an interpreter”.

In any such case, carefully note, Peirce is not speaking of the sign in its full sense as a triadic relation provenating from a representamen but rather of some version of “degenerate Thirdness”, as he calls it, which is a representamen as such, i.e., a sign-vehicle, a “reality” from which a triadic relation *would* provenate did but circumstances permit. For “if a sign has no interpreter”, he remarks,⁵² “its interpretant is a ‘would be’, i.e., is what it *would* determine in the interpreter if there were one.”

47. Ibid.

48. See Doyle 1984, Doyle ed. 2001, Deely 2007: Chap. 12.

49. The realization that there is an action of signs among plants, “phytosemiosis”, is rightly regarded as one of the main achievements of the later 20th century, and indeed the achievement which made the contemporary notion of *biosemiotics* possible: no life without the action of signs.

50. Peirce c.1907: Ms 318, ISP pages 205–206, a part of 318 that remains unpublished as of 2008 (see gloss on Peirce c.1907 entry in the References at the end of this essay).

51. Peirce c.1907: EP 2.404.

52. Peirce 1907: EP 2.409.

4.1 Why Sebeok's Final View of Semiosis as Co-extensive with Life is not Broad Enough

This brings me to the nexus, the crucial node, of the musement I am placing before you with this essay: when Sebeok notes⁵³ that “life modifies the universe to meet its needs, and accomplishes this by means of sign action”, while feeling at the same time “strongly drawn to Wheeler’s suggestion⁵⁴ that the fundamental physical constants, the nuclear and cosmological parameters, and others, are constrained by the unbudging requirement that life evolve”, is he not suggesting without realizing it that the development of the physical universe prior to the advent of life was itself a product of semiosis, even if that prior development, as Peirce suggested,⁵⁵ “cannot be fully revealed or brought to light by any study of the sign alone, as such. Knowledge of it must come from some previous or collateral source.”

In short, even if we accept Sebeok’s proposition that there is no life without the action of signs, we have still to ask if the converse of this proposition, “no signs without life”, is also true? Sebeok, the principal architect of semiotics as overtaking and absorbing semiology as but a part of the doctrine of signs, was inclined so to think.

But we have to realize that Peirce had a still broader view, and Poinset in this same line of thinking gave concrete indications of a philosophical nature⁵⁶ to suggest that while indeed semiosis is essential for living things to maintain themselves as living, there is also reason to consider that semiosis is essential to living things *not only in their present and actual existence*, as Sebeok recognized, *but also to the bringing about within the physical universe of the initial conditions which made life first proximately possible and then actual*—at which point semiosis passes from all “grades of degeneracy” (or “pregeneracy”) to reveal its full and genuine form in the veritable conflagration of sign activity drawing ever more and more complex living systems into reality as nature begins its climb, certainly on this planet (as all but certainly on planets elsewhere) toward that unique form of life which not only makes use of signs but is able to recognize that there are signs: the life of the semiotic animal.

For with the human being emerges a consciousness which will bring with it, as we have seen, and for the first time in the finite universe, *responsibility*: responsibility for the future of the species of animal within which that singular consciousness emerges, but a responsibility which turns out to extend in principle to every other animal species as well, because the responsibility is rooted in a form of knowledge which alone is capable of envisioning the requirements of the biosphere as a planetary phenomenon and so

53. Sebeok 1984a: 21.

54. Cf. Wheeler 1997; also Whittaker 1988, and Barrow *et al.* 1988.

55. Peirce EP 2.404.

56. Deely 1989.

of taking steps to bring civilization and culture into line with the requirements which, unless met, will destroy Gaia—the planetary whole of biosemioses upon which the flourishing of even human life depends.

4.2 Semiosis as Cause no Less than Condition of Life

I want to muse out loud, then, *pace* Sebeok, that the true interpretation of the formula or maxim “no life without signs” is the one that makes the action of signs coextensive with the living world, indeed, as biosemiotics has increasingly demonstrated, but avoids the possible error (the “quasi-fallacy”, as we might put it)⁵⁷ of making the action of signs purely and simply a function of life. The most extreme form of the assertion that semiosis is a function *only* of life is no doubt witnessed in Short’s blunder making the purposive behavior of animal life essential to the function of signs as signs.⁵⁸ But we have to wonder if even the broader and moderate assertion that life-science is coextensive with sign-science is not already a quasi-error. The text which I take as a focus for my play of musement on this particular occasion is the following one from Peirce 1904:⁵⁹

Finally, as what anything really is, is what it may finally come to be known to be in the ideal state of complete information, so that reality depends on the ultimate decision of the community; so thought is what it is, only by virtue of its addressing a future thought which is in its value as thought identical with it, though more developed. In this way, the existence of thought now depends on what is to be hereafter; so that it has only a potential existence, dependent on the future thought of the community.

No doubt my musement here presupposes some form of the so-called “anthropic principle”, according to which the universe is not indifferent to the existence of semiotic animals, but develops in such a way and along such lines as to become aware of itself precisely by bringing about the conditions necessary to sustain such a form of life.⁶⁰ This idea is new in the context of our understanding of the universe as a semiotic and evolutionary whole; but even in pre-evolutionary views of the physical world, the orientation of nature to the sustenance of life in its highest semiotic form was already a thesis explicitly held by Thomas Aquinas⁶¹ among others.

57. Recalling Sebeok 1984a: 20.

58. Short 2007, *passim*; documented in Deely 2008b.

59. Peirce 1904: CP 5.316.

60. “Incidentally,” Sebeok reported (1984a: 21), “Bense 1984 came to the identical conclusion that the Anthropic Principle is a semiotic principle”, although Tom confessed himself “at a loss to follow his dense y et exiguous argumentation”.

61. Aquinas i.1259/65: *Summa contra gentiles* 3; developed in Deely 1969.

What is new in our consideration is the light that the realization of how signs work in the universe—semiosis—throws upon the thesis that the material universe tends so to arrange itself as to bring about living things, and living things in turn tend to develop in the direction of semiotic animals. For *the action of signs follows upon the being of signs*; and the being proper to signs in their full and genuine form as triadic relations is not as such the substantial form of a living creature. Far from it. The being constitutive of signs in their proper being is a part of that tenuous network of relations without which such substances—living things—could neither emerge nor survive in the first place.

4.3 The Crucial Point over Which Peirce and Much Semiotic Development after him Stumbled: the Causality Proper to Signs as Signs

Animals act with purpose. For that matter, so do plants, and even inorganic substances in their own way. “Purpose” applied to nature names an intrinsic finality which is observable in the behavior of “natural units”—that is to say, actual individuals in the sense Aristotle termed “substances”. Many things that appear to “common sense” as “individuals” are indeed not individuals in the sense of *units of nature*. But whenever we succeed to isolate natural units, substances natural in the strict Aristotelian sense of “individuals”, we always find that they act in determinate ways in given circumstances, and that these “determinate ways” lead to determinate developments and outcomes in the course of which chance can intervene to alter the outcome, but not to change the fact that every finite interaction of individuals in nature is involved with tendencies to outcomes which accumulate over time, and even incorporate the unexpectancies of chance interventions to move the universe as a whole to what we may perhaps describe as a “growth in time”.

4.3.1 *The action of signs vis-à-vis finality*

So far we have described what might best be termed a “Darwinian universe”, one that develops mainly by chance, diverting development away from status quo, yes, but purely “vis à tergo” (“force from behind”) style. But notice that Waddington was alone right among the neo-Darwinians with his insistence on the role of the “epigenetic system” in its contrast to the “genetic system” as an “anti-chance factor”, one in addition to, or alongside, natural selection as an antichance factor.⁶² It is this second antichance factor in particular, along with chance, that opens the door to semiosis as an influence of the future (a “vis à prospecto”); for chance and finality alike entangle with the “information concerning possibility” that semiosis manifests or makes available, with the result of bringing about imprevisible states of affairs which (so to speak) conspire in the

62. See Waddington 1960, 1961; Deely 1969.

collectivity to first make the universe suitable for life, then to make living things actually occur and develop in the direction that will eventually allow the sign to become aware of itself through the reflection, the “metasemiosis”, of semiotic animals.⁶³

Thus purpose permeates nature, but through the interactions of individuals and collectivities of individuals. The action of signs is something else again, everywhere entangled with purposes, as also with chance, indeed, but distinct from both of them. When Peirce opined c.1902⁶⁴ that “all causation divides into two grand branches, the efficient, or forceful”, that is to say, causality in the order of brute Secondness, “and the ideal, or final” his addition at this point equating “final” with “ideal” proved to be, not so much for himself as for his later followers, a near-fatal misstep; for final causality occurs in the entitative realm of subjectivity primarily and first of all, while ideal causality is over and above that order, actual in the objective world or Umwelt of animals, but virtual already in the inorganic realm as physiosemiosis as also in the organic world prior to animal awareness as phytosemiosis.

4.3.2 *The crucial gap in Peirce’s Collected Papers*

Among the materials not to be found in the *Collected Papers*, where Peirce identifies the causality proper to signs as “ideal, or final causality”, are the parts of his manuscript 283 of 1906 where Peirce qualifies his earlier equation of final with ideal causality as perhaps having been “a too wide concept” which “will do no harm whatever, *provided that a careful division of it be made*”, whereupon he proceeds to show that the “careful division” in need of being made is precisely the later Scholastic division between final causality, whether intrinsic (teleonomy) or extrinsic (such as the purposive behavior of organisms), and *formal causality as extrinsic to a subject*, that is to say, as “objective”, whether actually or only virtually.

The distinctions involved here take us well beyond the “four causes”—efficient, material, formal, and final—identified by Aristotle as essential to the analysis and understanding of physical change in the environment. Whereas Aristotle conceived his scheme of causes in relation above all to the physical environment of changeable being, the Latins not only took over this scheme in their *philosophia naturalis*, but extended its application to the *world of culture* and the *understanding of discourse*.⁶⁵ In order to achieve this extension of causality to include the world of culture as well as that of nature as independent of culture, they found it necessary to distinguish both formal cause and

63. Deely 2008a.

64. Peirce c.1902: CP 1.211.

65. 6565 This full extent of the Latin analysis of causality in original texts is laid out in Deely 1991: 66n5, and further discussed in Deely 1994a: Chap. 6 and Deely 2001. In this last work, consult the Index entry CAUSALITY (p. 864), and Chap. 10, esp. pp.472–479). The *loci* for Poinsett’s own complete analyses of causality are set out in the two notes 289 and 290 following.

final cause as *extrinsic* as well as intrinsic;⁶⁶ and formal cause as extrinsic they found it necessary to *further subdivide* between exemplary (the causality at work in art), and *specificative* (which they also termed “objective”).⁶⁷ This last subdistinction, i.e., of formal causality as *extrinsic* to a subject but *specificative* of a role or function to be performed, they were then able to demonstrate as the precise sort of causality needed to explain the *agere* that follows upon the *esse* of signs. Poinso’s analysis on this point, “Whether to signify, formally considered, is to cause something in the order of productive causality?,”⁶⁸ stands to this day as the most historically authoritative discussion of this question in the literature of semiotics.

4.3.3 Signs as vehicles versus signs as signs

It is well to remember that the original notion of sign in general, as Augustine introduced it, was the common notion of sign as some material object which represents something other than itself in the eye of the beholder. Only gradually did the Latins realize that there are signs which are not objects first of all, namely, psychological states on the basis of which objects are presented interpreted as this or that. And only later still did they come to realize, as would Peirce after them, that what made material objects or psychological states alike be signs in the first place was their occupation of the foreground position of representing another within a triadic relation, whereupon Peirce concluded that what are commonly *called* signs are in reality but the vehicles of signification, while signs in their proper being are rather the triadic relations themselves without which signs in the common sense (something that can be seen or heard or touched) would not be signs at all. Signs in the common sense, the vehicles conveying a signification, he proposed to term rather *representamens*, in contrast to the triadic relation itself which functions as a pure medium of communication, and nothing more.

66. The most reliable synoptic summaries of late Latin analyses of causality are laid out found in Poinso’s *Cursus Philosophicus Thomisticus* of 1631–1635. For efficient, material, intrinsic formal, and extrinsic exemplary formal causality, consult Poinso 1633: Questions 10–13, 197a11–287b43—where, however, extrinsic specificative formal causality (“objective causality”), the causality proper to signs, is mentioned only in response to an objection confusing it with exemplary causality 245a24–43, 247a7–14. See not following for the *loci* of his direct discussions of objective (extrinsic formal specificative) causality, the causality distinctive of semiosis as the action of signs.

67. The direct discussion of formal causality as extrinsic specification is to be found in Poinso 1632, as follows: Q. 17, Arts. 5–7, 595b25–608b7; Q. 21, Arts. 4 and 5, 670a11–693a31; Q. 22, Arts. 1–4, 693a34–715a21; and further in his biological treatises of 1635, in the context of the discussion of cognitive organisms: Q. 6., Arts. 2–4, 177b1–198a16; Q. 8, Art. 4, 265b1–271b20; Q. 10, Arts. 1–5, 295b1–339a45; Q. 11, Arts. 1 and 2, 344b1–366b34.

68. See Question 5, Book I, of Poinso’s *Tractatus de Signis* of 1632.

Thus there is an important difference between a sign in the *common sense* of a vehicle, and a sign in the *strict and technical sense* of the triadic relation under which that vehicle stands as means of conveyance. The former Peirce calls “the *body* of the sign,”⁶⁹ or its “requisite vehicle”;⁷⁰ the latter he calls “the *meaning* of the sign”. For the vehicle or “body” of a signification, as a subjective reality in its own right (even when it is only a characteristic of an individual, as in the case of a psychological state), functions more broadly in its own right than its bare function within a given semiosis. Within the semiosis, it is the triadic relation and only the triadic relation which provides the “meaning” of the sign. Yet this meaning can be sustained or conveyed by various vehicles, for which reason Peirce contrasts the sign in its “body” to the sign in its proper being as triadic relation as comparatively “inessential”, inasmuch as the content of the communication depends upon the latter and only incidentally upon the former.⁷¹ Thus we note the crucial distinction between a *sign-vehicle* and a *sign-vehicle*: A *sign* as sign is a medium of communication—that and that only, existing as such (being a relation) suprasubjectively. A *sign-vehicle* is a medium of communication, indeed that, but *not necessarily only* that, for the reason that it has a subjective being along with the suprasubjective being it conveys objectively.

With this distinction in mind, see how Peirce moves toward Poincaré’s demonstration that the causality proper to signs is as a specificative extrinsic formal causality:⁷²

A medium of communication is something, *A*, which being acted upon by something else, *N*, in its turn acts upon something, *I*, in a manner involving its determination by *N*, so that *I* shall thereby, through *A* and only through *A*, be acted upon by *N*. We may purposely select a somewhat imperfect example. Namely, one animal, say, a mosquito, is acted upon by the entity of a zymotic disease, and in its turn acts upon another animal, to which it communicates the fever. The reason that this example is not perfect is that the active medium is in some measure of the nature of a *vehicle*, which differs from a medium of communication in acting upon the transported object and determining it to a changed location, where, without further interposition of the vehicle, it acts upon, or is acted upon by, the object to which it is conveyed. A sign, on the other hand, *just in so far as it fulfills the function of a sign, and none other*, perfectly conforms to the definition of a medium of communication. It is determined by the object, but in no other respect than goes to enable it to act upon the interpreting quasi-mind; and the more perfectly it fulfills its function

69. E.g., Peirce 1903: CP 2.222.

70. Peirce c.1902: CP 2.111.

71. E.g., Peirce c.1906a: CP 4.6: “One selfsame thought may be carried upon the vehicle of English, German, Greek, or Gaelic; in diagrams, or in equations, or in graphs: all these are but so many skins of the onion, its inessential accidents.”

72. Peirce c.1907a: EP 2.391.

as a sign, the less effect it has... other than that of determining it as if the object itself had acted upon it. Thus, after an ordinary conversation, a wonderfully perfect kind of sign-functioning, one knows what information or suggestion has been conveyed, but will be utterly unable to say in what words it was conveyed, and often will think it was conveyed in words, when in fact it was only conveyed in tones or facial expressions.⁷³

So, while animals, for example, have purpose, signs as signs do not. Signs convey what they convey, make of it what you can or will. The smoke of the volcano, does it signify only burning, or also the anger of the gods? Purpose is normally but always introduced into semiosis from without, from the entanglement of signs with the behavior of substances which are not but in spite of themselves become signs. Thus a given representamen as sign-vehicle, “just insofar as it fulfills the function of sign and no other function besides”, represents an ideal limit seldom or never reached in semioses actually occurring among interacting natural individuals and groups of individuals. A sign as vehicle of communication is not a mosquito as transmitter of disease (or a vaccination shot as preventive of disease), though accidentally, by reason of the vehicle’s properties as subjective in its own right having an existence which is more than can be reduced to its formal role as sign, it can *become* like a mosquito (or a vaccine)! But that is *per accidens* to the material status of the vehicle, not *per se* to its formal status as conveying the action of sign as sign.

4.3.4 Recognizing the “ideal limit” in vehicles of communication

Thus, a sign, in the sense of sign-vehicle, risks or may risk to be mistaken for the material characteristics and causal capacities of that particular bodily type (cf. Deely 2003). So we must be quite careful and explicit in using the term “vehicle” or “sign-vehicle” for the representamen in semiosis that we are using the term only in the precise sense of fundament of the relation of signification grounded in the object as presented *formally* to, not as materially acting upon, the interpretant—even though the sign-vehicle as, say, a material body in its own right, exercises other modes of causality along with and independently of that causality definitive of semiosis precisely as such. By contrast with “sign” in the sense of the material or even psychological vehicle embodying the sign-relation as fundament, a sign formally considered “just in so far as it fulfills the function of a sign and none other, perfectly conforms to the definition of a medium of communication”, thus (continuing Peirce from the c.1907a MS 283):

73. As André DeTienne put the matter to me in an email exchange of 09.20.07: “A good sign disappears in the very moment that an information gets effectively conveyed.”

It is determined by the object, but in no other respect than goes to enable it [that object which has determined the sign] to act upon the interpreting quasi-mind [the Interpretant] other than that of determining it as if the object itself had acted upon it.⁷⁴

The sign as a sign is not a vehicle which *modifies* what it conveys, but rather one which *purely conveys*: and so it acts in the order of a formal cause rather than an efficient cause, yet not as an *intrinsic* formal cause, but rather as an *extrinsic* formal cause specifying its interpretant from without and indirectly, that is to say, *via* the sign.

If we wish to emphasize this formal element as what is essential to the sign as vehicle of communication, then, the sign (Peirce 1906b: MS793 from EP 2.544n22):

may be defined as a Medium for the communication of a Form. It is not logically necessary that anything possessing consciousness, that is, feeling of the peculiar common quality of all our feeling, should be concerned. But it is necessary that there should be two, if not three, QUASI-MINDS, meaning things capable of varied determination as to forms of the kind communicated.

Peirce then repeats, with the term “medium” substituted for “vehicle”, the triadic formula which has been familiar and extensively discussed among the Latins from the late 4th century of Augustine’s work to the early 17th work of Poinset, but which Short’s Analytic crowd never considered or heard of before the 1930s:

As a MEDIUM, the Sign is essentially in a triadic relation, to its Object which determines it, and to its Interpretant which it determines. In its relation to the Object, the Sign is PASSIVE; that is to say, its correspondence to the Object is brought about by an effect upon the Sign, the Object remaining unaffected. On the other hand, in its relation to the Interpretant the Sign is ACTIVE, determining the Interpretant without being itself thereby affected.

74. Note that, in Peirce’s own text, we are dealing with a matter of formal, not efficient, causality when it comes to the question of how signs actually accomplish communication in bringing about their “proper significante outcome”. I emphasize this, because it gives us the means from within Peirce’s writings to correct the actual main flaw in his semiotic, namely, the conflation of all ideal causality with final causality. In fact, it is just this flaw, uncorrected, which steers Short off the path to think that, if signs require final causality in the sense of purpose, this semiosis can only be fulfilled in the behavior of animals. Peirce did not think that final causality was extrinsically involved in semiosis, but inherently involved (because he saw it as the only alternative within ideal causality in contrast with efficiency), not by importation as Short proposes. But in Peirce’s case this was a matter of confusion, and a confusion in the process of being overcome, resulting from an oversimplified notion—I am speaking here only concerning semiosis, not of the broader question of “natural classes”—of ideal causality so far as concerns the action proper to signs. It is a pity that this was one aspect of the later Latin writings he did not come across in his many consultations.

Now we are told the whole point of the reformulation (I add the SMALL CAPITALS for emphasis of the central point):

But at this point certain distinctions are called for. That which is communicated from the Object through the Sign to the Interpretant is a FORM. It is not a singular thing; for if a singular thing were first in the Object and afterward in the interpretant outside the Object, it must thereby cease to be in the Object. The FORM that is communicated does not necessarily cease to be in one thing when it comes to be in a different thing, because its being is a being of the predicate. The Being of a FORM consists in the truth of a conditional proposition. Under given circumstances, something would be true. The FORM is in the Object, entitatively we may say, meaning that that conditional relation, or following of consequent upon reason, which constitutes the Form, is literally true of the Object. In the Sign the FORM may or may not be embodied entitatively, but it must be embodied representatively, that is, in respect to the FORM COMMUNICATED, the Sign produces upon the Interpretant an effect similar to that which the Object itself would under favorable circumstances.

This may well be the most “scholastic” passage that Peirce ever penned.⁷⁵ Certainly it is one of the most scholastic passages, for anyone who actually knows something of the scholastic development of semiotic among the Latins will instantly recognize in Peirce’s entitative/representative distinction the clear echo of Poinset, Scotus, or Aquinas distinguishing between *esse entitativum* and *esse intentionale*. The above remarks of Peirce on Form as extrinsically causing the sign respecting its object to produce or be inclined to produce an Interpretant, when viewed against a greater familiarity with the late Latin semiotic development than even Peirce had attained, show that in the late development of his semiotic Peirce was himself moving beyond the mistaken idea that teleology is as such (i.e., as “final causality”) proper to semiosis in *its own right*, and toward the idea that specificative extrinsic formal causality is rather the causality proper to the action of signs, as will become clearer in what follows.⁷⁶

75. Houser *et al.* (EP 2.544n22) emphasize that “the conception of a sign as a Medium for communication becomes very prominent in Peirce’s 1906 writings”. I shall argue that this importance is itself a sign that Peirce was moving toward the Scholastic recognition that what he called “ideal” causality involved a kind of formal causality (extrinsic formal causality) and not simply final causality: consult the references in notes 65–67 above. Certainly from this point of view the year 1906 is much more important than Short’s identification of 1902 (60), “when the idea of final causation assumed explicit central importance in Peirce’s philosophy”.

76. In particular, see notes 81 and 82, below.

4.3.5 *Tracing the error to its “common sense” source*

But at least Peirce makes clear from where (besides from incomplete readings of his own writings!) arises the error of thinking—the source of the contrary to fact proposition—that final causality is the causality proper to semiosis. It is the point over which Peirce himself, and those who prefer being epigones to being semioticians in their own right with a responsibility for knowledge of sources in the development of their subject matter, seriously stumbled:⁷⁷

a sign is ordinarily understood as an implement of intercommunication; and the essence of an implement lies in its function, that is, in its purpose together with the general idea... of the means of attaining that purpose.

Thus a stop sign *has the purpose* of controlling traffic. But that purpose belongs to the stop sign from outside its being as sign. As a sign, it can only formally represent to trafficants where their vehicle should halt movement; but the sign cannot *bring about* such a halt, nor does it itself *intend* to do so. The intention belongs to the legislators who are not stop signs: it is the purpose of a certain group of animals introduced into the action of the stop sign as sign from outside the triadicity in which alone the sign consists. And the sign itself is indifferent to the purpose to which it happens to be put! The same cry of a wolf which signifies to another wolf the prospect of sexual interaction signifies to the nearby sheep a danger to be avoided! The sign may be and normally is entangled with final causality, but not because it *has* a final causality. No. What it has is an objective formal specificative causality over and above its subjective being as vehicle of that specification.

4.3.6 *Modeling “maybe”*

But that specification which the sign vehicle conveys to its interpretant, lying beyond the subjectivity of the environment here and now, provides, in effect, a modeling of the possible future; and it is *that* virtual objectivity that engages irresistably the finalities and chance diversions at work in and among the subjectivities of nature, even inconsciously and preconsciously, but most strongly once awareness becomes part of the environmental scene.

77. Peirce c.1907a: EP 2.389.

5. “Rendering Inefficient Relations Efficient”

How do signs act? According to Peirce,⁷⁸ their essential function as relative beings is “to render inefficient relations efficient.”

Let us start where the action of signs is indeed most clear to us, in the structuring of the consciousness and experience of each of us as individual animals. How does the action of signs work in this sphere of reflective consciousness distinctive of animals—human animals—able to distinguish relations from related things, and hence to know that there are signs (i.e., in their proper being as signs—triadic relations, as Poinset and Peirce separately and together have shown) in their difference from related things functioning as sign vehicles in the objective world of animals?

Here is the trajectory of these remarks: from the action of signs as working to transform an initially lifeless physical universe in the direction of being able to sustain living things, to continuing at work among those living things first brought about to increase and multiply them not only as individuals but also as species of increasing complexity and, with the emergence of animals, consciousness, but a consciousness which required the development of a biologically underdetermined *Innenwelt* in order to be able to model “things” not reducible to sensory aspects of objects and hence in terms of pure relationships which, exapted, will become *linguistic communication* as a species-specifically unique channel of communication opening the door to the “world of culture as over and above even though remaining as well inclusive of that partial, objectified world of physical things that we call “nature”.

5.1 Semiosis as an Influence of the Future

If “thought is what it is only by virtue of addressing a future thought which is more developed”, as Peirce held,⁷⁹ and thought as *consisting* in signs is necessarily involved in semiosis, then, if semiosis is even contingently and, as it were, intermittently involved in the material interactions of physical things, then the physical environment is what it is (insofar as semiosis is involved) only by virtue of addressing a future state of affairs which is more developed, and one eventually, even though not initially, dependent on the thought of a community wherever a community of inquirers as semiotic animals has been able to constitute itself.

Now in human thought, how does the action of signs typically manifest itself? One principal way is by *guiding our behavior* in everyday affairs. I go to meet a friend, or go to a meeting to be chaired by a particular individual. Unknown to me, that friend, or

78. Peirce 1904: CP 8.332.

79. Peirce 1868: CP 5.316.

that chair, is killed three hours before the scheduled meeting. I go there nonetheless, expecting to meet them in person. They are present to me as objects signified which are also things—or so I think even when the “also” no longer obtains. My thought as sign vehicle presents them to me as objects signified, equally when they are and when they are no longer things in the physical environment able to be encountered “in person”. Thus signs work as an influence of the future upon the present, and the meaning of the past is shaped by that influence of the future.

The future as signified or “expected” may or may not turn out to be the future as it will come actually to be experienced. But the future as experienced is nonetheless partially shaped by the anticipated future, even when the anticipations go awry. And there is no anticipation outside semiosis. Here we have been speaking of conscious semiosis; but it should be clear that anticipation is of the essence of the action of signs not only when conscious awareness is involved, but that the very possibility of conscious anticipation springs rather from the nature of sign-action which both precedes and surrounds consciousness, even when it also involves consciousness.

How, then, can all this work in the realm of inorganic nature? Not constantly, as in the realm of life. But why not intermittently, like a match struck to light a cigarette which sputters out before it flames sufficiently to achieve its purpose? As Peirce puts it,⁸⁰ “it may be that there are agencies that ought to be classed along with signs and yet that at first begin to act quite unconsciously.” Thus two events in the order of brute secondness (causal interaction among physical things) bring about a new situation which, not at the moment, but at a future time when yet some third new situation comes about, give rise, for example, to a first living thing, or at least to a change of circumstance that makes the remote possibility of life more proximate than previously? At that moment when emerges the first living substance, of course, and only then, the flame of sign activity is true and properly lit. Intermittent sparks become now a conflagration.

But what about those moments leading up to that moment, those moments wherein the material interactions of things at the level of secondness yet bring about a *thirdness of possibility* (a “firstness of thirdness”, as we might say) not at all possible prior to the specified interaction?⁸¹ Such transitions, such “leaps”, must have occurred, since

80. Peirce c.1907: EP 2.410.

81. Here I am extending to the physiosemiotic order an observation that Peirce makes of the anthroposemiotic order (c.1906: CP 5.489): “It is not to be supposed that upon every presentation of a sign capable of producing a logical interpretant, such interpretant is actually produced. The occasion may be either too early or too late. If it is too early, the semiosis will not be carried so far....On the other hand”, the occasion may come too late. (Here, then, is the proper place of chance in the process: central, yet not the very heart of the matter—cf. Deely 1969: 105–111.) In the extension, yet still following Peirce (now 1904: CP 8.332), “we may take a sign in so broad a sense that the interpretant of it is not a thought, but an action or experience, or we may even so enlarge the meaning of sign that its interpretant is a mere quality of feeling”, with the yet further qualification (c.1907: EP 2.410) that “it may possibly be that I am taking too

otherwise an initially lifeless universe incapable of sustaining life would have *remained* lifeless and *remained* incapable of sustaining life.

Yet we know that there was *de facto* a development of the physical universe which made life *proximately* possible prior to the advent of life, and apart from which development life would have remained impossible. Life lay far in the future at the instant of the “big bang”, yet all events thereafter occurred “as if” under the influence of that far future, in the sense of occurring (not in every individual occurrence, but in the aggregate) as preparatory thereto. In broadest strokes, we can say that life requires planetary systems, and planetary systems require stars; yet neither stars nor planets were present in the universe from the beginning. The future as proximately possible in this or that way depends upon the present state of things here and now; yet those things here and now by their interactions bring about further present conditions which *change the possibilities* of the future and, at the same time, the relevancies of the past; because it is always those “future possibilities” which determine in any given present state of affairs the relevance of the past thereto.

Thus semiosis, as the *virtual influence* of the future upon the present changing the relevance of the past, may well be the essence of the *action* of signs, as Peirce suggested as early as 1868,⁸² even as the *being* of signs consists in triadic relations; and these relations enable a spiral of development whereby the future not only depends upon the present but *beckons* the present to draw upon the resources it has from the past in different ways than heretofore, until we reach a stage where the future exists as a state of consciousness in the awareness of animals able to envision that future according to alternatives neither given

narrow a conception of the sign in general in saying that its initial effect must be of the nature of feeling, since”—as we mentioned above—“it may be that there are agencies that ought to be classed along with signs and yet that at first begin to act unconsciously”, as indeed must be the case wherever it is a question of physisemiosis, as in nature prior to the advent of life. See Deely 2008a.

82. Peirce 1868: CP 5.316. “Finally, as what anything really is, is what it may finally come to be known to be in the ideal state of complete information, so that reality depends on the ultimate decision of the community; so thought is what it is, only by virtue of its addressing a future thought which is in its value as thought identical with it, though more developed. In this way, the existence of thought now depends on what is to be hereafter; so that it has only a potential existence, dependent on the future thought of the community.” And as we know all thought to be in signs—thought being not only itself a semiosis but a particular semiosis, depending in its achievements on yet other semioses which are not thoughts (i.e., semioses whose interpretant “is not a thought, but an action” bringing about a thirdness even if only virtually, and semioses the “agencies [of which] ought to be classed along with signs and yet that at first begin to act quite unconsciously”—so it is necessary that thought reveal something of the essence of semiosis as such, something common to every semiosis, and I am suggesting that that quintessence of sign action is an influence of the future affecting the present and reshaping the relevancy of the past. There is not always the achievement of genuine Thirdness in semiosis—for example, when it is virtual but not yet actual—but there does seem always to be an influence of the future, which seems to be the meaning of Poinsett’s formula (a formula which even Short 2007: 53–56 recognizes to be operative in Peirce’s doctrine of signs). See further Poinsett 1632: 126/1–32; Peirce c.1902/1903: CP 2.275; Deely 1989 & 2008b.

as such in nor reducible to sensation and sense perception: at that moment the human animal begins a line of development which—slow by slow—falls more and more under *its own control* of alternative possibilities, precisely as its understanding of the subjective constitution of its physical surroundings expands through especially the idioscopic developments of science in the modern sense, according to the saying of Aquinas that “the speculative intellect becomes practical by extension”.

5.2 The Transition Within Semiosis to Semioethics

It is this species-specifically human and semiotic capacity to envision alternatives not reducible to the animal Umwelt of objects perceived simply as desirable (+), undesirable (-), or safe to ignore (0), which introduces into the lifeworld or *Lebenswelt* (the Umwelt as transformed by language and linguistic communication) the possibility of science, initially coenosopic, eventually idioscopic as well. That science is no different from the perceptual knowledge of all animals in being dependent upon the action and use of signs, but it differs from the perceptual knowledge of all other animals in being able to consider and reveal the “way things are” in their own subjectivity, their own constitution insofar as they are things existing whether or not cognized. Steel is stronger than cardboard not because either is known, but because of what each of them differently is in their subjective constitution as things of the environment; and that “is” requires recognition of the difference between objects as +, -, 0, and objects as sometimes and in various measures things existing—“things in themselves” in exactly that sense Kant falsely proclaimed to be “unknowable”—over and beyond our animal attitude towards them as +, -, 0.

It is the fact that no awareness can be achieved without the involvement of signs that remains inaccessible to animals unable to deal with relations in their difference as suprasubjective from things as intersubjectively related. For relations cannot be perceived, only related objects; but relations in their difference from objects related can be understood, and it is this possibility of awareness that distinguishes human understanding, for it is this awareness that is essential to modeling the world in ways that do not necessarily reduce to related objects in the order of material things accessible as such to sense; but it is this awareness which also introduces, as a consequence of its unique awareness, the ultimate inescapability of *responsibility*.

Thus, while all animals in making use of signs depend upon semiosis throughout their life, since signs in their proper being are not sense-perceptible vehicles but triadic relations knowable as such intellectually but not perceptually, only human animals are able to know that there are signs and not simply use signs. And since the study of signs presupposes the ability to know signs as such, i.e., in their difference from the vehicles of semiotic interactions, and that being proper to signs is revealed precisely through the

action of signs (semiosis), the animal able to know signs in their proper being is most properly characterized in its distinctness as the *semiotic animal*, the animal which rises above bare semiosis by becoming conscious of that process upon which all knowledge and life depends, as well perhaps as the process of development which leads up to and initially makes life proximately possible in a universe initially both lifeless and hostile to life. Responsibility for the *continuance* of the possibility in its actuality as an ascending development looms from the start as the horizon proper to the initial distinctiveness of anthroposemiosis.

6. A Final Frontier in Terrestrial Semiosis: The Semioethical Animal

Metasemiosis, the consciousness that there are signs with the accompanying realization of our dependence upon signs in all that we know or can come to know (whence the oxymoronic character of “metasemiotics” as a proposed term of discourse), reveals thus that the consequences of actions must be taken into account in deciding what actions to perform. That is the beginnings of ethics. But ethics has traditionally been envisaged in terms of taking responsibility for individual actions, and its semiotic character and roots have remained concealed in the standard treatments heretofore. As science and technology have become central to the lifeworld of human culture, we have begun to see that ethics in the traditional sense is not sufficient for the good of the species of semiotic animals—or any other animals, for that matter, inasmuch as semiotic animals are different from other animals in depending upon the surrounding conditions of their physical environment to thrive or even survive.

And thus the individual ethical consciousness of human animals to behave in ways conducive to the good of the individual precisely as a member of a community expands to realize that the human community is a biological reality as well as a cultural one, and depends like every biological community upon certain conditions being preserved or developed not just in the human world of culture but in the physical environment within which that world of culture exists and upon which the human world, like the *Umwelt* of every animal whatever, depends for sustenance. Thus the semiotic animal become *semioethical*, and ethics becomes *semioethics* as an acceptance of responsibility not only for individual behavior but also for collective behavior, and responsibility for the consequences of behavior not only within the culture but also within the biosphere apart from which, like language divorced from zoösemiosis, the cultural world simply implodes.

Global semiotics, in the human person, implies ethics; but ethics in the human person as semiotic animal becomes semioethics.

HISTORICAL RETRIEVE: SEMIOTICS' 20TH CENTURY FOUNDING

"... since the life of signs does not stop, of course, with their fixation into objects.... existential signs...are always in a state of becoming.... pause is always temporary."

(Eero Tarasti 2000: 7)

This chapter began as an article written at the request of Jiazu ("Charles") Gu as Editor of *Chinese Semiotic Studies*¹ to present my formal remarks on the semiotic heritage delivered on Wednesday, 23 September 2009, as Chair of the Mesa Redonda/Round Table "La Tradition Semiòtica/Semiotics Heritage", participated in by Solomon Marcus (Romania), Vilmos Voigt (Hungary), José Romera Castillo (Spain), and Chie Sou Kim (Korea), in the framework of the 22–26 September 10th World Congress of the International Association for Semiotic Studies held in the city of A Coruña, Galicia, Spain, at the Faculty of Sociology and Law of the University of A Coruña, Campus Elviña.

The chapter develops through four sections.

Section 1 is an outline of the framework within which the semiotic development came to occupy a major place within the intellectual culture of the 20th and 21st centuries.

Section 2 provides an overview of the semiotic development as it has occurred within the synchronic framework established in the preamble, as that framework nears the inevitable "diachronic turn" where the present author ceases to belong to the living population, which alone defines the non-geometrical reality of "synchrony" as an open-

1. "Semiotics seen synchronically: the view as of 2010", *Chinese Semiotic Studies*, vol. 4, no. 2 (December 2010), 9–11.

ended “new beginning” which, perforce, will occupy subsequently and diachronically its own “slice of time”.

Section 3 will present an analysis in detail of what we have learned—in this transitional synchronic phase (as pointed out shortly below by Petrilli) that we call “semiotics” today—that is of theoretical import for the “doctrine” or (cenoscopic) “science” of signs as it implies and establishes a definitively postmodern and global intellectual culture revealing the inherent possibilities of semiosis as mastered within semiotics to provide the cenoscopic antidote (both transdisciplinary and interdisciplinary) to the intense specialization which alone made possible the ideoscopic development of science in the modern sense—an original “synchrony” in its own right in the overlapping lifetimes of Galileo, Poincaré, and Descartes.

Section 4 the brief conclusion, will be a “parting summation” (intended especially to finalize the most fundamental sense of “synchronicity” introduced within and applied throughout this essay).

1. Outline of the Framework

1.1 Standpoint of the Chapter

We come from the womb, each of us, with no experience of the “external world” (as the modern philosophers called our surroundings), so it is not surprising that we all begin with a synchronic view that takes no account of history. A first-time visitor to Beijing in 2004 went on a sight-seeing walk with two colleagues, both of whom had been to Beijing previously, but not for some time. The two kept uttering marveling comments on the changes in the city, till finally their exasperated first-time visitor companion said emphatically: “I don’t see any changes at all.”

Henri Bergson (1859–1941) called it (1907) “the natural geometry of the human intellect”, to wit, the tendency to see everything in terms of the individual’s “here and now”, as if the present were eternal.

Experience early on forces at least some minimal awareness of a difference between past and present, and of future possibilities not all of which are predictable on the basis of either past or present. But to this historical dimension of human awareness there is a resistance, and only gradually do human animals (as distinguished from other animals) begin to take serious account of a past without which their present would not be at all, or of a future which offers unpredictable possibilities as well as mere extensions of

the past. And *only* human animals, precisely through *metasemiosis*,² are able to become aware of a past preceding their own synchronicity yet entering into and influencing that very synchronicity in ways that elude full consciousness even while shaping present consciousness and passing through it “diachronically” by extending the synchronicity of a given life into the larger synchronicity of the species as a whole³ in the universe of which it is a part.

This is the passage from the partial illusion of synchrony to the full reality of diachrony, and both perspectives are essential to the maturation of human understanding; for the present, even though it has no stationary point (inasmuch as each present moment is the simultaneous becoming of past and future), yet is the whole of the “land of the living”, into which enter and out of which exit new individuals, so that the population neither is nor can be wholly constant, determined, once and for all. This side of the grave, for the human animals, there neither is nor can be a “once and for all” synchrony; before conception and birth is too early, after death is too late, and during life the perspective on the external surroundings as it opened at birth is constantly deepening in spite of all,⁴ as our “glassy essence” becomes a veritable “bottomless lake” as we ourselves exit that “land of the living” which, at any given moment, constitutes the “present” population of human animals.

When I speak, then, of “synchrony” in this essay, I do not mean synchrony in the geometric sense of a timeless abstraction horizontally slicing across human experience for all time, as if with no vertical dimension actual or possible,⁵ but rather in the actual

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2. “Metasemiosis” consists in the awareness which the human animal, in using signs as every animal must, achieves with the intellectual realization that *the being proper to signs* consists in triadic relations, invisible as relations to sense perception, transcending every subjective boundary, and upon which every achievement of human knowledge depends. This is the realization identifying the human being, in order to be a “rational animal” (*animal rationale*) or “thinking thing” (*or res cogitans*), as having to be, yet *more fundamentally and integrally*, a semiotic animal, the only such animal on earth, with the responsibility that imposes—semioethics, as we will have occasion below to mention. On this term (and on the oxymoronic internal contradictoriness—the simple illegitimacy—of the linguistic expression “metasemiotics”), see Deely 2009b: iii-iv, xiv, 127, 194, 198, 199. (Of course, one can always try, Humpty-Dumpty style [“Words mean what I want them to mean; no more and no less”—see note 130 below], to stipulate a meaning for “metasemiotics” that overcomes the historicity of its oxymoronic baggage; but the arbitrariness of stipulation seldom trumps historicity [see Deely 2009c: Chap. 6], and what really would be the gain of success, anyway, in this case, even should it be achieved?)
 3. It is the whole problem of a “collective unconscious”, of the Heideggerean “House of Being”. See Deely 2000, and 2005.
 4. Deely 1992a.
 5. It was in this geometrical sense of synchrony, as we will see, that Saussure (1857–1913) conceived the matter in his original “signifiant/signifié” model proposed for semiotic development in the early 20th century. Jakobson (1896–1982), more than Lotman (1922–1993), in taking up Saussure’s model, yet qualified its “arbitrariness” sufficiently to leave an opening from Saussure’s own “geometrical synchronicity” to the actuality of “temporal synchronicity” which I employ in this essay. Actual synchronicity, taken as

or “temporal” sense according to which the present population of living human animals has developed within itself—in contrast to relatively isolated individuals here and there wondering about signs and their role—a veritable “community of inquirers”, species-specifically human, which takes the action of signs as its focus and—expanding at first mainly vertically (synchronically) but (inevitably), with the passage of time, horizontally (diachronically) as well, especially as living members pass away and new individuals enter the discourse.

It was in this sense of synchronicity, for example, that Susan Petrilli delivered her Sebeok Fellow Address to the Semiotic Society of America on 17 October 2008 (a Thursday, as it happened) on the occasion of the SSA’s 33rd Annual Meeting in Houston, Texas, USA.⁶

In these remarks I want to look at semiotics, as it were, more synchronically than diachronically. It is not the whole history of semiotic development as a consciousness of the fundamental role of signs in life and experience that I want to discuss, but rather the contemporary phenomenon that we today who have lived in both the 20th and the 21st century have witnessed and participated in as the development of semiotics. For though there is of course a long history behind the semiotics of today, still there is a sense in which semiotics is, as a widespread intellectual movement, a phenomenon more “of our time” than it is of any time past. So it is mainly of figures alive in the 20th century, and a few of them still alive today, that I want to speak.

So too my focus in this essay is synchronic in the expanding or temporal sense explained above, especially since I have already set out, in my *Four Ages of Understanding* volume,⁷ a “whole history of semiotic development” insofar as such an exposition pertains to philosophy as the basic cenoscopic science. My focus is on “the sense in which semiotics is, as a widespread intellectual movement, a phenomenon more ‘of our time’ than it is of any time past”, however much into the future it will perdure.

beginning at any definite “present moment” (e.g., AD1916), *from that moment* begins to “expand” by constituting a definite temporal cross-section within the cultural and intellectual consciousness of a given community—in this case, the “community of inquirers” focused on the matter of signs at work in the world within and around us. The fact that such a community, as a community among the living, definitely formed in the 20th century, as Petrilli remarks (2008a: 3), is the synchronic view I want to present in these pages.

6. Petrilli 2008a: 3.

7. Deely 2001, subtitled *The first postmodern survey of philosophy from ancient times to the turn of the 21st century* (Toronto, Canada: University of Toronto Press).

1.2 Synchrony's Inevitable Seepage into Diachrony: the Historicity of Human Use of Signs

Yet, indeed, the past is closing in upon us; so much so that we, who are still living members of the societies of human animals who first engendered a “community of inquirers” focused on the action of signs, must already look to the 20th century “founding figures”, even among those whom we personally knew and with whom we worked, as no longer living. From them we may still learn, indeed (that is the miraculous aspect of diachrony), but no longer they from us (the main limit of synchrony as intersecting diachrony). We ourselves, indeed, approach that “far boundary” where the community of living inquirers, the “temporally synchronic” investigators of the sign, will no longer include us but only—if anything—our works within its boundaries. At that frontier, in short, we may or may not continue diachronically to influence the future of semiotic development, depending on the fate among the living of our recordings in whatever media; but we will no longer be ourselves subjectively existing and adding “new materials” to the heritage of which we shall have (at that point) become “past part”.

So our “boundary of time” yields our definition of synchrony in terms of those with whom we can intersubjectively have intellectual exchange, in contrast with the bare suprasubjectivity⁸ of those whose lifetime does not overlap our own, from whom we can indeed *learn* but without the possibility of *their learning* from us, from what we have learned in turn. So synchrony as a temporal reality is a one-way movement into a limited future, in contrast with diachrony which not only arises from within synchrony but also invades it from a past before the synchrony in question began in the first place, and extends beyond that synchrony into a future accessible only to those who “come after” into the “land of the living.”⁹ As far as concerns the formation of a “community of inquirers”, then, beyond the central matter of a “shared focus”, the already dead define the past; the not yet living define the future; the not yet dead define *the present*, the “*synchronicity*” within which we are influenced by others (living or dead) but can influence directly (through dyadic interactions presupposed to Thirdness) only those around us, but beyond them also (through Thirdness alone) can we influence some at least of those to come “after us”, i.e., after we no longer exist subjectively involved in interactions and intersubjectivity, though suprasubjectively, through semiosis, we may indeed continue “objectively” in the indirect influences of pure relativity shaping the future in normally unpredictable ways.

From the standpoint of the present, when did “semiotics” begin? The answer already takes us beyond synchronicity, yet not all that far (backward) from the land of the living,

8. See “Why Intersubjectivity Is Not Enough”, Chap. 9 in Deely 2009c.

9. See “The Boundary of Time”, Preface to Deely 2001: xix–xxxiii.

if we distinguish the *actual formation* of a community of inquirers properly called “semioticians” from the *nominalist question* of the coinage of the term “semiotics”. The nominalist question, interestingly enough, already involves us in a diachrony whereby the past invades the serious formation of “semioticians” as the phenomenon of a coalescence of 20th century inquirers into a community investigating signs and the action of signs. The “invasion”, on this nominalist point, however, does not pass through the work of Saussure, the first actual figure around whom this community began its coalescence, but directly through Lotman who, as a follower of Saussure in the matter of the model proposed under the name of “semiology”, yet departed from Saussure in his choice of name for the new science by reason of a more informed historicity.

Let us, then, treat the two questions—nominalistic, on the one hand, formative, on the other hand—in turn.

1.3 The Nominalist Question

The term “semiotics” comes to us¹⁰ from a grammatically incorrect coinage by John Locke (1632–1704) in 1690 (December of 1689, to be technical), via a never-expressed Latin derivative *semiotica*, to the present usage of “semiotics” to name “the science”—as Ferdinand de Saussure (1857–1913) put it somewhere early in the interval between 1906 and 1911¹¹—that “does not yet exist”, yet “has a right to existence, a place staked out in advance”.

There had been previous discussions of this “science with a right to existence”, most especially in 16th and early 17th century Spain¹² and Portugal.¹³ The Latins had discussed the question of a (cenoscopic) “science of signs” under the moniker *doctrina signorum*, a usage which goes back at least as far as Augustine of Hippo (AD354–430).¹⁴ Though neither Locke nor Saussure evinced any least awareness of this earlier Latin development—what we now recognize to have been the original or “first” florescence of semiotic consciousness¹⁵—Locke at least equivalated his coinage as “Σημιωτικὴ or *the Doctrine of Signs*”, in this way, albeit unconsciously, establishing a linkage between his own proposal and the earlier Latin discussion—a discussion not only neglected in Locke’s

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10. This is a summary statement of extensive researches into the etymology of all the terminology that has been used in connection with the naming of the study of signs: in particular, besides the references listed in note 18 below, see Deely 2003a, *esp.* 2004, and 2006b.
 11. Saussure 1916 (= i.1906–1911): 16. But see the detail in note 20 below.
 12. Where Poincot’s culminating *Tractatus* was published in 1632.
 13. Where Poincot’s teachers, the Conimbricenses, had published their commentary *De Signis* in 1606, a work which never appeared outside the Latin language until Doyle’s English translation of 2001. This work was a crucial influence on both Peirce and Poincot (see Beuchot and Deely 1995).
 14. See Deely 2009: *Augustine & Poincot. The Protosemiotic Development*.
 15. See the “Timeline of Semiotic Development” in Deely 2009: Appendix E, 237–246.

day¹⁶ but thereafter thoroughly forgotten throughout the whole period of “modern philosophy” as it developed “from Descartes (1596–1650) to Davidson (1917–2003)”.

When Thomas A. Sebeok (1920–2001), in 1976, came to write the *Foreword* to his seminal volume *Contributions to the Doctrine of Signs*, he made a major point of choosing this *doctrina signorum* expression for his title, with a twofold objective: first, precisely to align himself with the longer tradition linking through Poinset “the ancients and the moderns in the history of semiotics”;¹⁷ second, to contrast the cenoscopic nature of semiotics with the ideoscopic approaches which constitute science in the modern sense¹⁸ (and in terms of which Saussure thought exclusively¹⁹).

Saussure himself, however, knowing neither Locke nor Peirce, Augustine nor Poinset, the Conimbricenses nor Peirce, simply proposed his own name for this “new science”:²⁰

I shall call it *semiology* (from the Greek *sēmeion* “sign”). Semiology would show what constitutes signs, what laws govern them.

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16. Ironically, the first systematic treatise fully to establish the semiotic point of view and triadic relation as constituting the formal being of signs, the *Tractatus de Signis* of John Poinset (1589–1644), was published in the very year of Locke’s birth, 1632!
 17. Sebeok 1982: x. See the biographical account in Williams 2010; and the contrast between the two “manifestos” of Anderson et al. versus Gardin et al. deliberately published by Sebeok back-to-face in the 1984 volume 52.1/2 of *Semiotica*. See below at note 65.
 18. See the biographical account in Williams 2010; and the contrast between the two “semiotic manifestos” of Anderson et al. on one hand and Gardin et al. on the other hand, deliberately published by Sebeok back-to-face in the 1984 volume 52.1 of *Semiotica*. See below, at note 65.
 19. Cf. Sebeok 1976: ix. Commentary in Deely 1975, 1976, 1977, 1978a, 1982b, 1986b
 20. Saussure 1916: 16. As I noted in Deely 2001: 673, however, Saussure’s proposed name for the general study, “semiology”, has been traced back (Godel 1957: 275) to November of 1894 in a note definitely from Saussure’s own hand; and Naville (1901: 104) reports an earlier version or outline for semiology essentially similar to what will appear in the *Cours* of 1916. Whether Saussure took over the term “semiology”, consciously or unconsciously, from some other source or, less probably, conceived it neologically in his own mind, according to Meier-Oeser (1997: 315) the term has a history of its own among Protestant Latin authors of the late Latin-early modern period. The decisive feature of the proposal so named in Saussure’s writing lies in the advice that natural signs are to be treated within semiology, if at all, only through an assimilation to the model of signs as conventional or “arbitrary” (unmotivated by anything in the vehicle’s physical structure or subjectivity in their link between sign-vehicle and object-signified).
- Had some student of Giambattista Vico (13 June 1668–1744 January 23) entered the discussion of Saussure’s day, we might also have had to contend with “sematology” as well as “semiology” in the 20th century settlement upon Locke’s “semiotics” as the proper name for the new science (about as helpful as was Tycho Brahe’s contribution to the Copernican debate in Galileo’s day!). Perhaps just as well such a student did not seriously emerge in time, for the complication would not have been particularly helpful, especially when we consider that “sematology” carried much the same linguistic/cultural baggage of (mis) orientation for understanding semiosis that Saussure attached to “semiology”. See Eschbach and Trabant, eds. 1983; and Trabant 2004.

Along with this name, Saussure proposed a model upon which to found or “base” the new science: the linguistic sign understood as providing the “master pattern”, *le patron général*, for the whole development. This proposed “foundational model” consisted in a dyadic relation between, basically, the acoustic image of a word heard, called the *signifiant*, as arbitrarily linked with a concept, the mental representation called the *signifié*. And what about the object *other* than the concept presented by the concept? especially when that object is also a physical reality, such as a steak ordered in a restaurant, say, or a mineral inside a mine?

There is no room in Saussure’s sign-model for any suprasubjective or intersubjective reality respecting the user of signs, linking those users to the external surroundings of physical things objectified, as we will see; Saussure relegates his proposed “new science” of “semiology” to the realm of “general psychology”, even though he demands that this “semiology” be recognized “as an independent science with its own object like all the other sciences.”²¹ In the beginning, Saussure’s *model* proposed (stipulatively, “arbitrarily”, as it were) to be the basis for the new science was accepted unreservedly in East and West alike, but his name for the new science was adopted initially only in Western Europe and the Americas. The challenge orchestrated by Sebeok over the 20th century’s last four decades to *both* name *and* model came to be the main “story line” in the founding of semiotics as we understand the “doctrine of signs” today.

1.4 The Actual Formation of a “Community of Inquirers” Focused on Signs

So far as the work of any single individual inspires the initial coalescence of a *community of inquirers* on the subject of semiotics, it would have to be recognized as the *Cours de linguistique générale* of Ferdinand de Saussure. This work, first published (from materials assembled posthumously by students of Saussure’s live classroom presentations) in 1916, provided the original focal point for what became for the first time in the 20th century something like a *general interest* across intellectual culture in the subject of signs conceived as “a new science with its own object”.

East and West, the study of signs was originally taken up by a whole range of 20th century thinkers who based their work explicitly on Saussure.

In the East, the most seminal of these thinkers was Juri Lotman (1922–1993), father of the “Tartu-Moscow School” of semiotics. Coming to the consideration of signs somewhat later than Saussure and, unlike Saussure, not ignorant of Locke’s 1690 proposal that a science of signs be developed under the moniker *semiotics*, Lotman chose to defer to Locke’s historical priority in this matter of naming. Thus, even though Lotman embraced

21. Saussure 1916: 16.

Saussure's dyadic *patron général* as an "unrejectable cornerstone" of the science,²² for the name of the new science of signs Lotman adopted from the beginning of his work the name "semiotics" in preference to Saussure's suggestion of "semiology".

East and West, then, the model basic—the sign-model taken as foundational—to the developing discussion was the same: Saussure's signifiant/signifié dyad. But the developing discussion itself was called "semiology" in the Western intellectual culture, "semiotics" in the Eastern.

Notice that Saussure's model is *stipulated*, or *postulated*, as the basis for the new science. Roughly contemporary with Saussure was a relatively unknown and comparatively neglected figure, the American philosopher-scientist Charles Sanders Peirce (1839–1914), born thus eighteen years earlier but dying only one year earlier than Saussure. Peirce too, but independently, and under some influence of his reading of the later Latins²³ (those who wrote in the centuries immediately before Descartes' advice to his contemporaries to beware of such reading, lest we be unconsciously infected by their errors), came to focus on the idea of semiotics as a possible new "science of signs". Peirce's work in this regard would come to be an influence on Roman Jakobson (1896–1982) and Charles Morris (1901–1979), both of the latter to become teachers of Thomas A. Sebeok (1920–2001). Sebeok, as we shall see, like Saussure a professional linguist, but at the same time also a self-professed "biologist manqué",²⁴ would prove to be the *pivotal figure* in moving semiotics from the arbitrary foundation laid down by Saussure to the analysis based foundation exemplified by Peirce's work in rejecting a-priori limits for the new science.

With this much preamble, let us sketch first an overview of semiotic development today, and then an analysis of the theoretical components or elements essential to the doctrine of signs which establish it as the positive essence philosophically of a postmodern intellectual culture. Within this culture philosophy as cenoscopic science should rediscover its proper role (lost since at least the Enlightenment) in providing the means for understanding how the world of culture is not oppositional to but a species-specifically human extension of the world of nature—from which the whole of life, nonhuman as well as human, emerged and upon which all of life depends.

22. Lotman 1990, *inter alia*.

23. Beuchot and Deely 1995.

24. See the memorial essay "Thomas A. Sebeok, Biologist Manqué", at <<http://carbon.ucdenver.edu/~mryder/itc/sebeok.html>>.

2. Overview of the Semiotic Development

The 20th century saw the outburst—for want of a better word—in intellectual culture of an interest in signs. By midpoint this outburst had spread virtually everywhere, and the work of Ferdinand de Saussure was recognized as having been the development's principal inspiration. Yet even so, as noted above, the development proceeded under two different proper names: both as *semiology* in Western Europe and the United States (as Saussure himself had proposed), and as *semiotics* in Eastern Europe (as Locke had first proposed, unknown to Saussure, and as including “ideas”—the “formal signs” of the earlier Latins—as well as “words” in the model,²⁵ a detail which Lotman did not fasten upon, but which, if he had, might have led Soviet Semiotics to the semiotic notion of significate as including, beyond the Saussurean *signifié*, the whole order of physical reality extrasubjectively apprehended as well as “given”).

2.1 The Initial Foundation Proposed in the 20th Century for a New “Science of Signs”

Saussure was a linguist, and also a typically modern intellectual, in that his awareness of philosophical culture was confined to the modern era. He was accordingly (inevitably) heir to the epistemological paradigm of modernity that Kant did but systematize, showing (or thinking to show) that what the Latins had called *ens reale* (being in its finite-mind-independent aspects) was unknowable, while what the Latins had called *ens rationis* (being as dependent upon mental representations through and through, “finite-mind-dependent being”) alone constitutes the sphere of human knowledge properly so-called.

Perfectly in line with this epistemological heritage in philosophy (which Sebeok would soon enough brush aside as capable of providing at best no more than the “midmost target” of semiotics²⁶), Saussure envisioned the new “science of signs” in exclusively cultural terms, and proposed as its foundation or focal developmental point the linguistic sign—but according to a very special conception thereof. When most people hear of the “arbitrariness” of words, they spontaneously think of the connection or application of words to things—food, buildings, trees—in our surroundings. Thus, when Saussure says the sign consists of a *signifiant* or “signifier” and a *signifié* or “signified” related “arbitrarily”, people are inclined to think of words applied to things.

But “words applied to things” is *not at all* what Saussure intended with his dyadic model of sign consisting of *signifiant/signifié*. Saussure was interested exclusively in the relationship of the word to the mental representations, the ideas or images, in the “minds”

25. See Deely 2001: Chap. 14, esp. 601–603.

26. Sebeok 1991: 2.

of speakers, not individually, but as these form the whole of *langue*, the linguistic system, which he conceived as a kind of autonomous whole unto itself laterally linked infinitely by analogies expressing more in the mind of even the individual speaker than that of which the speaker is fully aware. “Things” in the sense of objects signified (significates), as, for example, when in a restaurant ordering a steak to be prepared medium rare, and then being satisfied or unsatisfied with the steak finally presented (as it were) “in the flesh”: that was no part of the *signifié* in Saussure’s sense. Objects signified as things had no formal place in the Saussurean semiology/semiotics system.²⁷

Keep in mind that, as pointed out above, Saussure’s model dominated both Eastern and Western European thinking about signs, but that only in the West, and only partially even there, did his term “semiology” prevail.²⁸ Apart from Poinso’s outline of the requirements for thematically studying the sign which appeared only in Latin the year of John Locke’s birth, but of which the moderns were completely oblivious, the earliest proposal we have within modern philosophy for a science of signs came to publication in the last month of 1689, but bearing the date of 1690, as the concluding chapter of Locke’s famous *Essay concerning Humane Understanding*. There he proposed for this “science which does not yet exist but has its place marked out in advance” the name Σημιωτική; and, as we noted above, it was this name that Lotman chose for the first three issues of his journal, *Sign Systems Studies*,²⁹ the oldest semiotics journal on our planet, even though he otherwise embraced Saussure’s dyadic model as the stipulative basis for the “new science”.

Σημιωτική, as Locke bequeathed the term to name this “new science” had no direct Latin counterpart (though Locke himself did say it was a synonym for “doctrine of signs”, the expression used by Poinso and common among the Latins); but it transliterates into Latin as *Semiotica*, the name of today’s foremost international journal of semiotics, as it happens; and *semiotica* from Latin to English, as also Locke’s Greek original, yields *semiotics*. Choosing Locke’s name but Saussure’s model for the new development, Lotman identified *langue* as the “primary modeling system”, itself in turn opening the way to and making possible the cultural world or system as a whole, which Lotman termed accordingly the “secondary modeling system”. And Lotman’s work formed

27. Oddly, from a fully semiotic point of view (i.e., from within the major tradition), the crippling weakness of this omission within a patron général supposed as foundational is regarded by some as a core strength of semiology, the foundation of the “Autonomie du langage”, as Serra put it in her syllabus for a 2005–06 “Introduction à la Linguistique Générale” (http://www.unil.ch/webdav/site/ling/shared/IntroductionLing/Serra/Intr.a_la_ling.Cours_n_8.pdf): “le signe linguistique a pour fonction de relier un signifiant (image acoustique) à un signifié (concept) et non de relier une expression à un objet du monde”.

28. See Copley 2009.

29. Until someone pointed out that Locke’s spelling is syntactically deficient from the standpoint of Greek grammar, after which *Sign Systems Studies* adopted the spelling actually incorrect (as it turned out) for Locke’s purpose, namely, Σημιωτική : but that is another story (Deely 2004) we have not the space to retell here.

the centerpiece for the development of so-called “Soviet Semiotics”, in terminological contrast with, yet foundationally identical to, *semiology* in the West.

Here we need to consider also yet a third thinker seminal to the Saussurean-based development, Algirdas Greimas (9 March 1917–1992 February 27). Like Lotman, Greimas accepted the Saussurean notion of sign, but especially as developed and mediated in the work of Louis Hjelmslev (3 October 1899–1965 May 30), still marking no place of a sign as “natural”; for also like Lotman, Greimas preferred the name “semiotics” to the name “semiology”—though perhaps for quite different reasons.

Anne Hénault, a close assistant to Greimas over many years up to his death, recently suggested to me that the “over the top” usage to which Roland Barthes (12 November 1915–1980 March 25) put the term “semiology” in his 1964 *Éléments de sémiologie* motivated Greimas to put some distance between his own scientific approach to signs and Barthes’ metaphorical exaggerations. Be this as it may, Greimas, notwithstanding his semiological foundations and notion of sign, constantly preferred to work under the title of semiotics. Alexandros Lagopoulos, in a letter dated 12 July 2009, pointed out to me that, in the Greimas and Courtés *Dictionary* of 1982, the same entry “Semiology” which waxes “quite dithyrambic about Barthes” also suggests rather clearly that “Greimas opts for the term ‘semiotics’” both “because of the relation of the term ‘semiology’ with a very limited interpretation of Saussure’s definition, which sees the system as excluding the semiotic process and thus the signifying practices”, and because of the relation of that term “with a narrow application of the linguistic model”.

Well, the two accounts of Hénault and Lagopoulos are hardly incompatible. And it remains that the question of *what a sign is*, as a distinctive sort of being with a consequently distinctive sort of action, is not merely a question of *what we decide to mean by sign* as a matter of stipulation.³⁰ Required rather is a cenoscopic and prescissive analysis of our *experience* of the working of signs in order to derive from that action a “guess at the riddle” of what a sign *is* in the distinctiveness of its being contrastive alike with objects and things. Such an investigation, not simply an initial stipulation taken as foundation without further ado, has to be at the center of any inquiry with a claim to

30. Exactly here do we confront squarely the superiority of the semiotic approach Peirce shares with Poinset as his main predecessor in uncovering the triadically relational character of semiosis. “What is the essential difference between a sign that is communicated to a mind, and one that is not so communicated? *If the question were simply what we do mean by a sign*, it might soon be resolved. *But that is not the point*. We are in the situation of a zoölogist who wants to know what ought to be the meaning of ‘fish’ in order to make fishes one of the great classes of vertebrates” (Peirce 1904: CP 8.332, italic added; cf. Poinset 1632: TDS I.1,116/1–13, 117/20–118/18, etc.) Where the semiologist wants to assert what a sign is, and proceed from there, the semiotician prefers rather first to determine what a sign is, and proceed from there. (It is one of those many and recurrent choices between Nominalism and Scholastic Realism.)

being scientific—whether cenoscopically, ideoscopically, or (as is usually the case with semiotics) an interactive combination of the two.

2.2 The Challenge to Saussure's Stipulative Foundation

There had been, in fact, another 20th century thinker, slightly older than Saussure, who agreed with Saussure in principle that a science of signs had a right to existence and its own distinctive thematic place; but he never made Saussure's mistake of thinking that a model of sign activity taken from human culture should be the "*patron général*". The thinker in question was an American (the only American so far, as I think, who deserves a mention in the front ranks of philosophers), Charles Sanders Peirce (10 September 1839–1914 April 19), whose foundational work in semiotics traces to 1867. The term most frequently used by Peirce was *semiotic*, not "semeiotic" as his epigones have tried to claim.³¹

But Peirce and his work did not figure directly in the widespread semiology/semiotics of early to mid-20th century Saussurean inspiration. Not at all. Interest in Peirce's work was confined mainly to small circles of philosophy students in the United States. Many, perhaps most, of these students did not tend to see Peirce's work primarily in the perspective of a doctrine of signs (Max Fisch [1900–1995], above all, as the 20th century *doyen* of Peirce scholarship was to change this general inappreciation for semiotics as providing the principal arc of Peirce's intellectual development³²). They saw Peirce's work rather mainly through the lens of modern philosophy's established categorizations and in terms of the influence on James and Dewey in the "pragmatism" from which, ironically in the case, Peirce eventually came to dissociate himself.³³ Quite specifically, Peirce introduced the term "pragmaticism" to denote the *incompatibility* of his thought with the denial of mind-independent status to relations in which he (rightly)³⁴ deemed Nominalism of whatever variety—as specifically to include the "pragmatism" of James and Dewey—to consist.³⁵ One American who did early see Peirce mainly in semiotic

31. See following note.

32. Less commendable was Fisch's responsibility for the myth that Peirce's preferred term for the doctrine of signs was "semeiotic" with no final "s" (pronounced "see-my-OH-tick"), a myth that cannot survive a full survey of Peirce's texts, which shows rather a preference for "semiotic" or "semeiotics": see Deely 2009: 62–65, "3. Clearing the Mists of a Terminological Mythology"; also available online through the Peirce-L archive: < <http://www.cspeirce.com/menu/library/aboutcsp/deely/clearing.pdf>.

33. See "Pragmaticism is not pragmatism", 616–618, and "Pragmaticism and the doctrine of signs", 625–628, in Deely 2001.

34. See Deely 2001: *passim*; and 2008.

35. Peirce died far too early to include the "pragmatism" of Richard Rorty (4 October 1931–2007 June 8). But it remains as one of history's ironies that the nominalist-compatible version of late modern philosophical

terms and developed his thought accordingly was Charles W. Morris (23 May 1903–1979 January 15). The Peircean influence on Morris was transmitted to one of his students, Thomas Albert Sebeok (9 November 1920–2001 December 21), himself a linguist, and a devoted student also of the Russian linguist Roman Osipovich Jakobson (11 October 1896–1982 July 18),³⁶ who as well prompted Sebeok with an interest in Peirce. And it was Peirce, never Saussure, whom Sebeok came eventually to regard as “our lodestar” (as Sebeok put it in his 1984 Presidential Address to the Semiotic Society of America³⁷).

The challenge to Saussurean epistemological foundations for developing the new “science of signs”, thus, did not come from Peirce directly. It came, as a sociological reality and direct intellectual challenge, from the work of Thomas Sebeok.³⁸

If we regard Saussurean semiotics/semiology today as, at worst, a last gasp of modern philosophical idealism and, at best, as a part of the larger “doctrine of signs” that found its most fecund (if not most famous) late 19th-early 20th century exponent in the work of Peirce—and if the name *semiotics* has come quite to displace “semiology” in the countries of Western Europe and North America—it is to Sebeok that we must directly look, and initially to Peirce only indirectly, as well as largely through the Sebeokian influence which has, more than any other, made of semiotics a “global phenomenon” of postmodern intellectual culture, wherein Peirce at last comes directly to influence the

thought generally known as “pragmatism”, a current which prevails from James through Rorty, provides the Peirce-originated but later-replaced name adhered to in presenting even Peirce’s distinctive thought among students who should well know better. Cf. Deely 1998a (at <<http://www.helsinki.fi/science/commens/papers/redbook.pdf>>) and Houser 2006.

36. Jakobson—“one of the first Soviet scholars who became famous abroad”, as Voigt 1995: 201 noted—was certainly deeply schooled in the Tartu-Moscow line of semiotics, of which Lotman was the chief representative. But Jakobson, unlike Lotman, had not remained confined in that world of “nightmarish Soviet bureaucratic restrictions” for most of his career. Indeed, Sebeok had regularly visited with Jakobson at Princeton during his graduate studies, and considered Jakobson his actual if not official Ph.D. thesis director.

Lotman’s early critique of the Saussurean model in terms of the secondary indexicality necessarily entangled with the “arbitrariness” to which Saussure gave sole emphasis (see Deely 2009c), together with his growing interest in Peirce, were major influences on Sebeok over the many years of his close friendship and intellectual association with Lotman. It is perhaps a striking testimony to just how closed was the “world” of Soviet semiotics, lived from within, that Ivanov (2008) is able to present his “Semiotics of the 20th century” to a Moscow congress without a single mention of Sebeok or of the development of the major tradition outside that insular “Soviet” intellectual universe created on Saussure’s “arbitrary model”. (Ivanov’s survey makes a rather startling contrast with, for example, Sebeok 1998.) It is as if an inadvertent testimony that the originally Saussurean “Moscow-Tartu school” is indeed a thing of the past, especially if we compare it to the emergence after Sebeok of what should be called the “Tartu-Bloomington-Copenhagen school” of biosemiotics today.

37. Sebeok 1984: 9.

38. And even Poinso’s work, which first laid the ground systematically for study of signs as triadically relational in being, would not be with us today as an independent study were it not for the initiatives of Thomas A. Sebeok (Sebeok 1986b).

discussion. Only now, after Sebeok's successful challenge to the Saussurean semiology/semiotics as a "pars pro toto fallacy",³⁹ does Peirce in the 20th century's second half begin to emerge within semiotics (beyond the small circle of philosophy students) as a central figure—at first as if alongside, but eventually quite to eclipse, Saussure. The good reason for the eclipsing I will discuss in Section II following.

But first let it be well understood that, speaking of semiotics as it came best to be understood in the 21st century, the summary statement of W. C. Watt on this point is definitive (2009):⁴⁰

Sebeok was the re-founder of the discipline, in 1962, and remained its universally-acknowledged *doyen* until his unwelcome death, at 81, at the end of 2001.

2.3 Shifting the Semiotic Enterprise to an Adequate Foundation

Sebeok's challenge to the culture-bound model of semiotics, as common to Saussure, Lotman, Hjelmslev, Greimas, and (originally) Eco, developed in stages; and it was the frustrated biologist in Sebeok himself, not any direct Peircean influence, that was mainly responsible for launching the revolution. However species-specifically unique and overriding in importance linguistic communication may be among human animals, Sebeok simply deemed it ridiculous to think that the larger matter of the action of signs can be confined to the sphere of culture, or adequately analyzed on the basis of any specific type of sign which is confined to the one species of animal that we designate "human".

To make this point, Sebeok began by proposing the term *zoösemiotics* (he himself did not use the dieresis, although he fully agreed with its semantic point) as a name for the broader study of signs as their action—called *semiosis*, after Peirce—is found throughout the animals kingdom. There are indeed species-specifically distinctive dimensions of sign action and use among human animals, Sebeok emphasized; but this

39. Unfortunately, while Sebeok's campaign to demonstrate the inadequacy of the semiological paradigm (the purely cultural view of sign activity) did have the effect in the West of a virtual abandonment of the term "semiology" as a name for the semiotic enterprise, his program did not have equal success in persuading adherents of the semiological view of sign-action to admit the partial and limited status their analytical approach to the codes of cultural phenomena occupied within the semiotic enterprise as a whole. More than a few Western authors adopted the term "semiotics" as a kind of mask for their work, while continuing to promote a purely semiological enterprise. An outstanding example of this shift from "pars pro toto fallacy" to "pars pro toto masquerade" is Chandler 2002, a book proclaiming to treat of *Semiotics. The Basics* while treating in fact of *Semiology. Some Basics*, inasmuch as the work considers nothing beyond the cultural side of anthroposemiotics (without even indicating that there is another side: see gloss on this book in the References following).

40. Watt 2009.

is also true for animals in every species, and we cannot—as would-be students of the sign wherever its influence is to be traced—blind ourselves to a larger action of signs which overlaps anthroposemiosis but extends beyond human culture in the lifeworlds of other animals.

2.4 Remodeling Anthroposemiosis as the Human Use of Signs

Here we come to a truly remarkable syncretism. Sebeok, born Hungarian but American by adoption, saw in the work of two thinkers of the University of Tartu, Estonia—namely, Jakob von Uexküll (8 September 1864–1944 July 25), Estonian/German, and Juri Lotman, Russian/Estonian—the elements in need of synthesis to provide an adequate foundation for the development of semiotics in its contemporary guise, even apart from Peirce (and I will take up the Peircean influence as Sebeok conveyed it shortly). Jakob von Uexküll was what Sebeok termed a “cryptosemiotician.” This term provides a crucial category for demarcating the epochs or periods in the development of semiotics (see Deely 2006c). It designates a thinker who, contrary to his or her epistemological paradigm inherited as a modern, nonetheless did work that requires to be re-thought in the perspective of semiotics for the importance of the work fully to be appreciated. In his pioneering study of *Umwelt* as the meaningful world of objects developed species-specifically by every animal, von Uexküll had been forced to postulate as correlate with the *Umwelt* the animal *Innenwelt*, and it was here that Sebeok was able to point out the truly “primary modeling system” for anthroposemiosis as a whole.⁴¹

Sebeok, already in 1970, had gone out of his way to meet in person with Lotman. In 1977 he had made Lotman an Honorary Member of the Semiotic Society of America, under Article 4, Section 1.d. of the SSA Constitution. But it was only after “a protracted dinner” with Lotman on 3 October 1986 in Bergen, Norway (Lotman’s “first journey ever to the West”)—where what Sebeok describes (1998: 23) as “a mutual rapport and sympathy came to suffuse and envelop us as if we had been the oldest of friends”—that Sebeok came away with the full inspiration for the Uexküll-Lotman (or “Umwelt-Semiosphere”) synthesis that was to be a crucial step toward his vision of semiotics as encompassing the whole of life (“biosemiotics”).⁴²

41. Deely 2001c was the first synthesis of Sebeok’s ideas on this point of reinterpreting Jakob von Uexküll’s work in explicitly semiotic perspective, and was delivered in an Imatra paper with Sebeok in attendance. After that session Sebeok referred inquirers to the essay as “the best development of von Uexküll’s work in explicitly semiotic terms.” A further detailed synthesis emphasizing the *Innenwelt* side of the *Umwelt/Innenwelt* juxtaposition is set out in Deely 2007a, online at <http://www.augustoponzio.com/Critical/12_Deely.pdf>.

42. In conjunction with the private dinner mentioned above, Lotman’s public address (1987 publication) to that Norsk Forening for Semiotikk “Symposium on Semiotics in Theory and Practice”, organized by Dinda

Returning from that 1986 occasion, Sebeok diplomatically launched his proposal to consider the animal *Innenwelt* as the primary modeling system for all cognitive life forms, with species-specifically human linguistic communication construed as an exaptation therefrom enabling the further development of culture as the “tertiary modeling system”. He began this “diplomatic initiative” in a formal address to the Semiotic Society of America,⁴³ a basic text that appeared afterward in many places⁴⁴ in testimony of the importance for semiotic understanding that Sebeok attached to his new synthesis of the modeling perspective—as would further appear in his later work with Danesi.⁴⁵ This Uexküll-Lotman-Sebeok synthesis, it is not too much to say, has become the main foundation-stone for the postmodern development of semiotics. But it is not the whole story of Sebeok’s founding (or re-founding) contribution, not by any means.

2.5 Furthering the Foundation: an Action of Signs Beyond the Animal Umwelt

In 1981 Sebeok had already taken the further step of promoting the work of Martin Krampen, whose analysis extended the action of signs beyond even the animal *Umwelt* to include the realm of plants, not only in relation to animals but among the plants themselves as forms of life. This was a move, patently, that put in place the possibility of proposing biosemiotics. It is rather astonishing to realize that Augustine, in his original proposal for a general notion of sign as transcending the ancient nature/culture divide, expressly pointed to this same possibility of semiosis among plants as a “*motus animi*” communicated to neighboring plants!⁴⁶

Worth noting is the fact that two pioneers of the biosemiotics development have also been named “Thomas A. Sebeok Fellows” of the Semiotic Society of America, one of the most distinguished awards in semiotics today. The Danish semiotician, Jesper Hoffmeyer (21 February 1942–), was named in 2000 the Fourth Sebeok Fellow, precisely because

Gorlée and Sven Strelöv, had also played a role in inspiring Sebeok’s idea for this remarkable *Innenwelt/ Umwelt + Semiosphere* synthesis, toward which he hoped to directly enlist Lotman himself, as he tells us (Sebeok 1998: 31): “Lotman, in his introductory speech, rightly underlined the contemporary emergence of syncretic tendencies...in semiotic investigations. ‘In the humanities,’ he said, ‘different disciplines combine into a single science of man, centered around the semiotic study of culture.’ Commute *science for the humanities, life for man, and nature for culture*—and this great, charismatic thinker and I might have consummated a transcendental disputation. I had hoped to argue my case, and ancillary issues, at our next scheduled encounter, at the 25th Symposium of the Tartu-Moscow School of Semiotics, held in Imatra, Finland, 27–29 July 1987 (Sebeok 1988), but, alas, Lotman could not attend, and I never saw him again.”

43. See Sebeok 1987, his first presentation to the Semiotic Society of America subsequent to the Lotman meeting.

44. See Sebeok 1988, 1988a, 1989a, 1991a, 1991b.

45. Sebeok and Danesi 2000.

46. On this amazing point, see Deely 2006b and 2009b.

of his 1996 pioneering book on the expansion of semiotic understanding to include the action of signs throughout the sphere of life (see now his 2008a claim that biology itself is but “immature biosemiotics”). Then, also for pioneering work in biosemiotics, the Estonian semiotician, Kalevi Kull (12 August 1952–), was in 2003 named the Fifth Sebeok Fellow.

When we consider Sebeok’s pioneering role—both in synthesizing the theoretical work developed at Tartu University by the German Estonian Jakob von Uexküll at the beginning of the 20th century with the work done there by the Russian Estonian Juri Lotman at the end of the 20th century, and in laying the foundations of biosemiotics generally, together with his promotion of the biosemiotic work of Kull and Hoffmeyer both in issues of the journal *Semiotica* and in his book series—it is hard to avoid speaking today rather of a “Tartu-Bloomington-Copenhagen school” as having succeeded the earlier “Tartu-Moscow school”;⁴⁷ and it is the former “school” which has provided the main theoretical thrust within the biosemiotics development up through the first decade of the 21st century.⁴⁸

But let us not get too far ahead of ourselves. What needs to be noted here is that, around this same time that Sebeok promoted the idea of a “phytosemiotics” (with his publication of Krampen 1981), he also became particularly vocal in declaring to all with ears to hear that the so-far mainstream contemporary semiology/semiotics of the 20th century’s first half or so was guilty of incarnating a “Pars pro Toto” fallacy—the very fallacy recently turned on its head and reintroduced within biosemiotics, as we shall shortly comment in Section 10. *Frontiers in Semiotics*⁴⁹ was the volume that landed Sebeok’s “pars pro toto” point squarely in the mainstream North American semiotic literature of the period.

2.6 The Place of Peirce, after Poinset, in Displacing the Pars Pro Toto Fallacy

Peirce’s view of semiotics in the end proved even broader than Sebeok’s.⁵⁰ If we ask ourselves why Sebeok nonetheless came to regard Peirce as “our lodestar” for the development of semiotics,⁵¹ we do not have far to seek for the answer. Semiosis, Peirce

47. See esp. note 114 below.

48. See further in in note 114 below.

49. Deely, Williams, and Kruse, eds. 1986.

50. See Deely 1989a: “Peirce’s Grand Vision” concerning an action of signs throughout the universe. Sebeok, as far as I know, first proposed his co-extensivity of sign-science and life-science in his address entitled “The Sign Science and the Life Science” to the Hungarian Academy of Sciences on 1 October 1990, which I had the privilege to attend. In 1991, at Tom’s invitation, I published my argument against this thesis; at the time of his death a decade after, we were still in discussion of the issues.

51. Sebeok 1984: 9.

said, is the name for the action of signs that follows upon their distinctive being; so "semiotics," Sebeok said along with Peirce, is the name for the knowledge that results from the identification and study of that distinctive way of acting (semiosis), wherever it is to be found. Just as biology is the name for the study of the action of living beings, so semiotics is the name for the study of the action of signs. But here is where Peirce set himself apart from Saussure and all the followers of Saussure, and apart also from all those who would think that we need but transfer a code-based model from culture to biology in order to have an adequate foundation for biosemiotics, the study of semiosis as presupposed for all living things, not just animals.

"If the question" of semiotics "were simply what we do mean by a sign", Peirce presciently remarked,⁵² "it might soon be resolved." But stipulation or decree is not the means by which any science, cenoscopic or ideoscopic, achieves its fundamental goals. Not at all. As semioticians, Peirce noted, we are rather "in the situation of a zoölogist who wants to know what ought to be the meaning of 'fish' in order to make fishes one of the great classes of vertebrates"—how is it that "a sign is something by knowing which we know something more"? That is the question. Our point of departure is not simply the common understanding of what some particular thing is as "a sign", but the question of what is sign such that it is able to function in the manner that we experience it as functioning—revealing nature, stitching together culture and nature, real and unreal relations, weaving the fabric of experience, and leading us down blind alleys and cul-de-sacs as well as broad avenues of being and nonbeing in the forests of human belief:⁵³

We all have a ragged-outlined notion of what we call a sign. We wish to replace that by a well-defined concept, which may exclude some things ordinarily called signs, and will almost certainly include some things not ordinarily so-called.

There we have the distinctiveness of Peirce in the matter of semiotics, as also of Poinset well before him: the recognition that signs lead us everywhere in nature as well as in culture, including, as Claus Emmeche puts it,⁵⁴ where humans "have never set foot".

Instead of taking some particular kind of sign as paradigm, and basing everything on that particular notion, as Saussure proposed, Peirce took instead exactly the path that Poinset had blazed in 1632 to open *his* inquiry into sign: What is it that makes a sign, regardless of the particular type of its vehicle in nature or in culture, actually to be a sign? And both men arrived at the identical answer: the sensible phenomena that we call "signs" are such only by reason of occupying the foreground position of representing

52. Peirce 1904: CP 8.332, italic added.

53. Peirce 1905: EP 2.388.

54. Emmeche 1994: 126.

another than themselves to or for some third. A sign—any sign—is a sign by virtue of a relation irreducibly triadic attaining that which it signifies directly and an interpretant indirectly as its “proper significate outcome”.

Now relations have never been well understood in modern thought, ever since Ockham postulated that only individuals exist, and that “relations” arise only when there are two or more individuals similar in some feature(s) according to a comparison made by some observer, in some mind. Apart from mind there are only the individuals interacting. So if signs really consist in relations, then Ockham’s model fits well the notion that only in human culture are there signs. But if relations are indifferently mind-independent, *ens reale*, or mind-dependent, *ens rationis*, depending only upon the surrounding circumstances, as Poinsoot called to our attention, then we can see at once how signs transcend, as suprasubjective relations, all the divisions of subjective and physical being, not only the nature/culture divide, but also the inner/outer, self/other, psychological/physical divides as well.

A causal relation, for example, in modern thought, is considered as the interaction of two or more things. But such interaction is not a relation; a relation is what results from and survives as over and above the interaction. A relation is invisible to sense, even though it unites the sensed; and it is indifferent to spatial distance, unlike the interaction which gave rise to it.

All of this, then, enters into our semiotic notion of sign. A sign as provenating a triadic relation is not an object, or at least need not be. On the contrary, the action of signs—semiosis—is what every object presupposes.⁵⁵ And just as any given thing may or may not be an object, but as object directly is normally *not* a Saussurean *signifié* (and never by way of a relation other than triadic in any event), so we may say that what Poinsoot and Peirce call an “object signified” (which turns out simply to be a redundant and clumsy way to say significate) actually has no place directly within a semiological scheme.

And here we reach the heart of the matter: code-based sign-analyses, no matter how many “things” they may involve, three or a hundred and three, are reducibly dyadic combinations, whereas the being that makes a sign a sign remains irreducibly triadic as well as suprasubjective—even when the significate is purely objective⁵⁶

And this indirectness involved in the being of signs as triadic relations is precisely what explains the main—the overwhelming—difference between semiotic causality and all other forms of causality: while other forms of causality can take place only between actually existing and present things, semiotic causality can take place even when one

55. The argument for this “semiotic sign” notion (Deely 2004d) has now been presented in dramatic reading form on YouTube:<http://www.youtube.com/view_play_list?p=E9651802BCDC14BF>.

56. Deely 2009c. and not a thing at all.

(or sometimes two) of the elements united under the triadic relation don't exist now, or perhaps never did or never will exist. No other causality can compete with that; and that singularity of signs as relations (i.e., of signs considered in their proper and distinctive being as signs) is precisely why semiosis in nature acts as a *vis a prospecto*—a real but indirect possibility of the future influencing the relation of past things to the here and now arrangements of things in the present—even alongside the *vis a tergo* so beloved of reductionist biologists such as Dennett and Dawkins (among many).

So the action of signs depends upon, because indeed it follows upon, the *being* of signs; and that being in every instance involves something of subjectivity (normally in its vehicle), but transcends that subjectivity as well in uniting it with other subjectivities and objectivities in the process and web of semiosis, a web precisely of *relations* at once suprasubjective and triadically unifying the vehicle of the signification directly with its significate and indirectly with an interpretant “which need not be mental”.

Code-based analyses, in Peirce's terms, reduce to Secondness. Signs do not, because signs are not only relations but also relations triadic in type. Whence “Thirdness is the triadic relation”, Peirce tells us⁵⁷—in this merely echoing Poinot⁵⁸—“considered as constituting the mode of being of a sign.” Hence code-based semiotics, be they applied in the realm of culture or in the realm of biological nature, are a *pars*, never the *totum*, of semiotic analysis; and when mistaken for the whole of the semiotic story such analyses constitute a fallacy—no less in the 21st century's biosemiotic development than in the mid-20th century's exclusively cultural semiology/semiotics. Coding and code-based out comes unquestionably have a place in the semioses of living things (there is a place in biosemiotics for biosemiology as a part, just as there is a place in anthroposemiotics for semiology as a part); but that place is not the whole, still less is it the main part of the story of semiotics as the doctrine (the cenoscopic science) of signs.

2.7 Setting the Record Straight on What Semiotics Is All About

Semiotics is the knowledge developed by studying the action of signs and all that that action involves, including codes. But the action of signs as such springs from the being of signs as triadic relations, and that is not a question at all of “Peirce versus Saussure”. Biosemiotics is no more “Peircean” than biology is “Darwinian”. Personalities shape and influence but do not constitute scientific domains in their objectivity. Biosemiotics is the study of the action of signs in the living world, just as biology is the study of organisms. Indeed, insofar as biology to this point has tended to recognize only *vis a tergo*, while semiotics has been able to identify in addition *vis a prospecto* at work in the interactions

57. Peirce 1904: CP 8.332.

58. Poinot 1632: 154/25–29.

of living things (Hoffmeyer's "semiotic scaffolding", for example), it may even be the case, as recently argued by Hoffmeyer,⁵⁹ that "biology is immature biosemiotics". It is ironic that the *pars pro toto* fallacy of 20th century cultural semiotics should now by some be re-introduced into the 21st century semiotics of the biological world. This amounts to semiology "turned on its head", somewhat as Marx is said to have done with Hegel's dialectic.

As semiology can be regarded *either* as a part of the larger whole of semiotics or as a last gasp of the modern idealist doctrine that the mind itself makes whatever the mind comes to know, so code-based biosemiotics proposed as a larger whole than sign-based biosemiotics misunderstands the very foundation of the whole semiotic enterprise, and repeats the *pars pro toto* fallacy of semiology all over again. Code-based biosemiotics can assume a rightful place within and as an essential part of semiosis-based biosemiotics, or it can delude itself as being a larger whole. In either case, it is biosemiology that we are confronted with when codes become our paradigm, not biosemiotics in the proper sense of the body of knowledge being developed from study of the action of signs within the whole of the living world.

2.8 "Science" or "Doctrine" of Signs?

In that 18th century burgeoning of European thought we call the Enlightenment, thinkers were mainly animated by the idea that the new science, based on experimentation and mathematization of results (science in the modern sense, ideoscopically developed inquiries), would "slow by slow" displace and replace all previous human knowledge.

It took some centuries for thinkers to begin to start to commence to realize that this was by no means possible, for the excellent reason that if the whole of the knowledge we acquire before becoming scientists has no independent validity, then science itself would have no validity. Yet even today, *by no means* have all thinkers awakened from the Enlightenment "dream of reason",⁶⁰ as we witness in those who would set philosophy off to one side as otiose for the future of semiotics. (Recall that Berkeley pointed out to the early moderns that primary qualities could not be known as belonging to things if the secondary qualities upon which the knowledge depended were purely mind-dependent representations; but sometimes points obvious to the point of self-evident—such as the verification theory's claim that verification constituted meaning, to pick a recent circularity—take human animals centuries to realize. Some still think, to pick another recent example, that Frege's sense/reference distinction resolves the problem of objectivity!)

59. Hoffmeyer 2008a, title.

60. 6060Notable in this regard is Gottlieb 2001, whose book is not for nothing described as "a stunning successor" to Bertrand Russell's *History*.

Unfortunately, in the past, we had no better name than common sense for the “prior knowledge” from which science in the modern sense begins and which it presupposes throughout its investigations; and if ever a notion has been discredited beyond possibility of rehabilitation it is surely the notion of common sense. We owe again a great deal to Peirce in this regard, drawing on Bentham (of all people!) for showing that “common sense” is not necessarily common, but that neither is science necessarily ideoscopic, but cenoscopic as well—and presuppositively.

For semiotics, the most basic of the cenoscopic sciences, has now succeeded in showing that the whole of human knowledge, from its animal beginnings in sense⁶¹ through its development in imagination, memory, and estimation, and its further extensions in intellection as not reducing to objects perceptually instantiable as such, depends upon the action of signs. So what are we to call this knowledge, which is derived analytically without being dependent upon the experimentation that typifies science in the modern sense? It is, Peirce tells us,⁶² a science, yes, but one that is *cenoscopic* first of all, and only secondarily an *ideoscopic* science.⁶³

Now this—cenoscopy and ideoscopy as subtended by cenoscopy—is a terminology that has only recently begun to be taken up and developed. If look back over the centuries, however, we find that the word *scientia* in the Latin age, when (practically speaking) only cenoscopic science existed (and at that in a state which confused all too readily “common sense” conclusions concerning points which required, if not ideoscopy, at least precissive care in handling), has a Latin synonym, namely, *doctrina*. It is interesting that this synonym for science as cenoscopic is precisely the one that Sebeok, as early as

61. Sensation is to animals, we may say (I owe the analogy to Kalevi Kull), what root systems are to plants. When Barbieri says (2009: 164) that “single cells do not build internal representations of the world and therefore cannot interpret them”, he quite amply displays his lack of understanding of the distinction between interpretant and interpreter. Again when he says that “animals react only to representations of the world”, he manifests his tacit beholdness to Kantian epistemology in exactly the sense that semiotics begins by surpassing. As early as Poinso’s dazzling analysis in 1632 of why animal sensation precissively considered within perception (“*phantasiari*”, actually, for which we have no full equivalent in the modern languages, though “perception” comes the closest) is *already* a web of semiotic relations, even though no mental representation is yet involved, the doctrine of signs had made clear that not only is *representation* not the whole story of mental life, much less of semiotics, but that *other-representation* is prior alike to the self-representation of things in sense-perception and to the self-representation of objects in experience more generally, including the cases of illusion or mistaken identity where the object self-represented is not what it seems.

62. Peirce 1908b: CP 8.343.

63. Peirce borrowed this cenoscopic/ideoscopic distinction from Bentham (see Deely 2001b: 618n21). Ashley (2006: 85–87), giving a fine illustration of the applicability of this distinction as Peirce drew it, uses the variant spelling “ideoscopic”, which is therefore not to be confused with Peirce’s usage of the term “ideoscopic”, which concerns the phaneron rather than (as in Ashley) ideoscopy proper. I am indebted to Ransdell (1997: note 1). Ashley’s spelling of “ideoscopic, ideoscopy” as synonymous with Peirce’s spelling as “ideoscopic, ideoscopy” is discussed in Deely 2003 and especially in 2008.

1976,⁶⁴ expressed a strong preference for over the Saussurean-inspired label “science of signs”, where the word “science” clearly carried its modern ideoscopic sense.

It was not that there were no key figures contemporary with Sebeok, such as Paul Bouissac, seeking to push semiotics wholly in the direction of ideoscopy.⁶⁵ Indeed, no one more than Sebeok appreciated the importance of ideoscopic results, including for the development of semiotics. But Sebeok, unlike Bouissac and other Enlightenment epigones after him, recognized quite well the blunder of continuing to embrace the Enlightenment understanding of the enterprise of modern science being the complete displacement of all cenoscopic with ideoscopic knowledge; and he opted accordingly for the sounder alternative of providing for semiotics a cenoscopic base. This story, indeed (without the later terminology of cenoscopy and ideoscopy) is spelled out in Williams’ 1985 “review of the reviews” as part of her Preface to the corrected reprinting of Sebeok’s key book of 1976.

So the question, “science of signs or doctrine of signs?”, admits of no simple-minded solution. For all of science is critically controlled development of human knowledge, whether the framework of that development be primarily ideoscopic and experimental or primarily cenoscopic and directly experiential—or, as in biosemiotics, a fertile admixture of the two. But when we reflect that our intellectual ancestors of Latin times had not one but two terms for “science”, and that only one of these—*doctrina*—has retained its predominantly cenoscopic overtones, the fact that this alternate expression, “doctrine of signs”, is the one consistently used by preference by every major figure so far in the compelling and still-unfolding semiotic story, from Augustine through Aquinas and Poinso, to Locke, Peirce, and Sebeok in our own day, takes on considerable historical weight. In opting for Poinso’s, Locke’s, and Peirce’s “doctrine of signs” over Saussure’s “science of signs”, what Sebeok was signaling was nothing less or other than Peirce’s point that semiotics is first of all a cenoscopic science, and as such provides the framework for the whole of ideoscopy—not only within biosemiotics, but for the whole of academic and intellectual culture.

64. In his “Preface” to *Contributions to the Doctrine of Signs*; see in particular the entry that he later commissioned for the *Encyclopedic Dictionary of Semiotics*, ed. Sebeok, Bouissac, Eco, Pelc, Posner, Rey, and Shukman (1st ed.; Berlin: Mouton, 1986), Vol. 1 of 3, p. 214.

65. Precisely for this reason, as we remarked in note 18 above, Sebeok arranged to have published side-by-side, as it were, the two competing “manifestos” (as he referred to them privately) on this point concurrently developed in 1984: on the one side by Anderson, Deely, Krampen, Ransdell, Sebeok, and T. von Uexküll, and on the other side by Gardin, Bouissac, and Foote.

2.9 Does the Action of Signs Reach Even Beyond the Land of the Living?

Whether there can be any action of signs outside the sphere of living things depends not upon living things but upon the being proper to signs, which is at bottom what determines how signs as such act.⁶⁶ What signs are remains the central question that we have seen—throughout our brief review of the 20th century origins of semiotic development through to the 21st century present—code-based analysts beginning with Saussure have avoided to face. Hence they have tended to miss the irreducibility of triadic *relations* which are not “triangles” and cannot be reduced to triangles (or “trinities”), even though the relations in question depend upon and involve the biological agents of interaction in the physical surroundings.

Whether the *vis a prospecto* of semiosis as an indirect, probabilistic causality was at work in the world of nature as the universe, beginning as lifeless and incapable of supporting life, moved through a series of transformations which made life more and more possible, indeed likely, and eventually actual, is a question that reductionist interaction models of science do not know how to face. Yet it is precisely the handling of this question, by prescissive analysis, not by declaration or vote, that can alone determine how far the action of signs extends.

Peirce, our lodestar, made his most dramatic move not at all in discovering analytically that without triadic relations there are no signs whatsoever; indeed, this had already been fully demonstrated in Poinso's work centuries before. No. Peirce's most dramatic move in semiotics was in separating the third term of the sign relation from the order of finite mind, with his distinction between *interpretant* and *interpreter*, and the declaration that an interpretant *need not be mental*. This was the move that sets Peirce apart in the history of philosophy and semiotics as cenoscopic science; and this was the move that led to his famous proposal that “the universe is perfused with signs, if it does not consist exclusively of them”.

The view that the universe consists exclusively of signs is the only view that could properly be labeled *pansemiotics* or *pansemiotism*. But if there is a semiosis beyond life, that specific extension calls for a specific term, not a comprehensive one with an historical implication that “all is semiosis”. The best term proposed so far for a semiosis at work prior to and independent of life but inevitably preparatory to life and supportive of life once it has emerged is *physiosemissis*.

There is no limit to the damage that can result from an ill-considered appropriation of such a term as “pansemiotics”, the historicity of which is loaded with inevitable meanings from the past conveyed analogically quite beyond the ability of an individual user effectively to control the usage by arbitrary stipulation. Arbitrariness does not trump

66. See Deely 1990a: Chap. 3. More extended treatment in 2009i; also in Chap. 12 of 2009d: 233–275.

historicity; it merely feeds upon it.⁶⁷ Indeed, there is evidence that this appropriation (or misappropriation) of “pansemiotics” as a term of discussion may already be “going viral”. Marc Champagne informs me:⁶⁸

Todd Oakley writes (in *Cognitive Semiotics* 1, pp. 26–27, 27n2) that “Semiotics is the study of signs produced intentionally by human beings and taken by other human beings as expressions of their producers’ conscious mental states and communicative intentions,”⁶⁹ and states that those who “descend from the anthropological rung” (he cites Sebeok and Hoffmeyer) are—hold on to your armchair—“pansemiotists”!⁷⁰

However lacking in semiotic sophistication Oakley’s assertion may be, it yet serves as a reminder and illustration that terminology is more than arbitrary, and that the “pars pro toto fallacy” is capable of many transformations as it continues to plague discourse about signs.

But that the universe is *perfused* with signs no semiotician today has much—if any—room to doubt. The only question outstanding is in what exactly does this perfusion consist? Is it simply that all things are in principle knowable, but actually to know any of them we depend upon the action of signs? Is it simply that all living things in order to thrive and develop over time depend upon the action of signs? Or is it indeed that the very universe itself, in order to make life possible in the first place, was already partially dependent upon a virtual action of signs where objectivity, too, was only virtual, while things alone were actual and interactive? (This last was an idea already implicit in the Augustinian notion of *signa naturalia*, or physionomic signs, in contrast to the *signa data*, or teleonomic signs, manifestative of life.⁷⁰)

It is a fascinating question, one that the indirect formal causality of relations in their suprasubjective being as triadic inevitably poses. Particularly in view of the singularity of semiosis causality, whereby it transpires not only among things that are, but between things that are and things that are not—yet or never, depends; but not only upon the action of signs—it is not surprising that Sebeok, despite his own view that life is the boundary line for the actual beginning of semiosis proper, characterized the first book formally to propose an action of signs in nature prior to as well as accompanying life⁷¹

67. See Chapter 6 of *Purely Objective Reality*, “The Sign—Arbitrariness or Historicity” (Deely 2009c: 84–109).

68. Email of 3 July 2009.

69. Another colleague, in an email of 9 July 2009 11:38 hours, called this “the single most misguided definition of ‘semiotics’ ever put to paper”, deserving to be “cited by semioticians of every stripe as an example of exactly the kind of ignorance that we are up against”.

70. See Deely 2009: 6.4.2. “To Capture Augustine’s Initiative in a Terminological Proposal”, 55–56, esp. the summary “Table”.

71. Deely 1990a, *Basics of Semiotics*, Chapter 6, “Physioseiosis and Phytoseiosis”. The fifth edition of this

as “the only successful modern English introduction to semiotics”. How far the action of signs extends depends upon the causality proper to signs; and what that causality is depends upon the being proper to signs as signs—my goodness! the very question from which the whole of semiotics (the *totum*, as it were, not just this or that *pars*) arises in the first place!

2.10 Semiotics in the 21st Century's Dawn: Sebeok's Shaping Role

Before transitioning now to as large a picture as we can draw of the contours of semiotics as the emerging future wherein the proponents of semiotics struggle to find the best way or ways to institutionalize the doctrine of signs within the framework of university life as it has been shaped especially over the last three centuries by the institutionalization rather of *specializations* within the academic community, let us summarize the present section with an explicit delineation of the central shaping role of Thomas A. Sebeok in giving to the global development of semiotics today its overall shape or “direction”.

Since Saussure's early 20th century kindling of the flame, the study of signs as a “new science” has come a long way, and much has been learned about the question, particularly with respect to what turns out to have been something of an overstatement on Saussure's part, namely, that as of his time the science in question “does not exist”. We know now not only that Charles Peirce contemporaneously with Saussure was independently engaged in the same question of establishing a “science of signs”, but that he was going about the quest in a much better-informed and broad-based manner—following, in fact, the “properly scientific” procedure recommended by Aristotle throughout his works:⁷²

it is necessary, while formulating the problems of which in our further advance we are to find the solutions, to call into council the views of those of our predecessors who have declared any opinion on this subject, in order that we may profit by whatever is sound in their suggestions and avoid their errors.

Peirce was raised on Kant, and so had in philosophy a quintessentially “modern”, i.e., an “epistemological”, formation. But he found in the moderns next to nothing of

work (2009d) contains in Chapter 12 (Section 4.1.) a discussion of “Why Sebeok's final view of semiosis as co-extensive with life is not broad enough”. On Peirce in this matter, my main comment so far is 1989a; on the prospect of physiosemiosis itself, see further 1993a, 1995a, 1997, 1998, 1999, 2001b, 2008a, and the first official SSA Session on the topic, “Adventures in Physiosemiosis” with papers by Coletta (197–202) and Newsome (203–207) in Deely and Sbrocchi eds. 2008.

72. The particular passage I cite is from the *De Anima*, Book I, the opening of Chapter 2, 403b20–23 in the Bekker pagination; but the content of this particular passage is found repeatedly throughout the whole of Aristotle's works.

value for penetrating the question of what signs are and how they function or act. So he began to dig further in philosophy's history, becoming thereby, in effect, the first of the moderns to eschew Descartes' advice that the Latins be ignored.

This move had the transforming effect to make of Peirce the "last of the moderns and first of the postmoderns", as I have elsewhere explained at length;⁷³ for what Peirce discovered was precisely that our Latin forebears had over many centuries advanced in an understanding of the notion of sign as a distinctive subject matter requiring a scientific treatment of its own. In particular, he found also that the discussion of sign to be fruitful presupposed as its "root notion", so to say, relation as a suprasubjective reality, an idea originally broached by Plato,⁷⁴ but fully thematized only in Aristotle's work⁷⁵ as later taken up among the Latins and applied specifically to the question of sign. Peirce familiarized himself with the works of Aquinas, Scotus, Ockham, and the Conimbricenses. He developed a particular fondness for Scotus, as the first really to have advanced the realization that psychological states—"concepts" or "ideas"—function cognitively as sign-vehicles. From the Conimbricenses he adopted his famous thesis that "all thought is in signs", and from the Conimbricenses no doubt, Poinso's teachers,⁷⁶ he was put on the trail of the decisive discovery, first fully formulated and set out in demonstrative form by Poinso in 1632,⁷⁷ that a triadic relation is required for any sign-vehicle fully to signify, and hence constitutes the formal and proper being of signs.

Virtually unknown in the matter of signs in the 20th century's first half, when Saussure's stipulated dyadic model for sign came into near-universal adoption as the basis for semiotic discourse, by the 1960s Peircean ideas had begun to emerge from the background and sidelines of semiotic discussion to occupy instead center-stage, with the Saussurean stipulated dyadic model being increasingly displaced by a Peircean triadic relational model uncovered by a precursive cenoscopic analysis rather than by stipulation or "decree".

But exactly how did this move of Peirce from the sidelines to center-stage come about? The answer to that question lies in the work of one man above all others, the linguist and "biologist manqué" Thomas A. Sebeok. Not only was Sebeok instrumental in bringing Peirce to the foreground of semiotic discourse, but he was also responsible for the major shifts in terminology that accompanied and surrounded this "Peircean emergence".

73. Principally in Deely 2001: esp. Chap. 15; but also earlier, in Deely 2000a: *The Green Book* <<http://www.helsinki.fi/science/commens/papers/greenbook.pdf>> and elsewhere.

74. Esp. in Plato's c.399/390BC middle dialogues "Parmenides", "Phaedo", "Theatetus"; but also in the c.359-347BC late dialogue, "Sophist". Cf. Cavarnos 1975: 18-19, and *passim*.

75. For a full discussion of Aristotle on this point, see Deely 1985b: 472-474, esp. fns. 112-114 for the Greek texts. See also Deely 2001: 73-78, esp. "The category of relation", 73-74.

76. See Beuchot and Deely 1995: "Common Sources for the Semiotic of Charles Peirce and John Poinso".

77. Poinso 1632: *Tractatus de Signis*, Book I, Question 3.

As Peirce found and Sebeok fully realized (not only through Peirce but also by his support for bringing to publication the semiotic of John Poinset), “*doctrina signorum*” is the oldest expression for a general theory of signs. Not only does *doctrina signorum* go back to Augustine and, through him, pass down to Aquinas and finally Poinset in the first florescence of semiotic consciousness (understood as the achievement of an explicit awareness that the being of signs consists, strictly speaking, in a relation that is not only suprasubjective but also triadic in character), but its English version as “doctrine of signs” was, as we saw, expressly pointed out by John Locke as a synonym for his own neologism to name the subject, “semiotics”. In addition, “doctrine of signs” was the expression similarly used by Charles Sanders Peirce in his own investigations of the matter. The upshot of all this is that *doctrine of signs* became the express choice made by Thomas A. Sebeok in his unmasking of Saussure’s proposed basic model or *patron général* for the study of signs as a “*pars pro toto* fallacy”.

Thus, Sebeok’s twofold establishment in the West—first, that semiotics =/semiology as a science based upon Saussure’s model of sign as a dyadic and wholly anthropological (or anthropocentrically anthroposemiotic) construction; and, second, that Saussure’s proposal of this equivalence was an instance of the “*pars pro toto*” fallacy—remained largely hidden from Eastern eyes, by virtue of a simple linguistic habit resulting from the adoption in the East of Saussure’s *patron général* as linked from the first with the in-principle-broader term “semiotics”.⁷⁸

Sebeok far from rested content with his, so to say, “conquest of the West” for semiotics as a *doctrina* (a “cenoscopic science”) including culture but only as itself a species-specific part of nature as a larger and comprehensive whole. He was determined to extend his conquest to the East as well, and thus to establish semiotics precisely as *global*⁷⁹ within what has proven to be the “postmodern era” of intellectual culture as now dawning. To this end, Sebeok approached Juri Lotman directly, both reporting on his initial discussions to an annual meeting of Semiotic Society of America,⁸⁰ and expressing full confidence that Lotman would soon enough join him⁸¹ in establishment of the

78. Thus, in 1964, the very year following Sebeok’s introduction of the notion of zoösemiotics expanding the understanding of signs beyond the artificial boundary of culture as set for the study by Saussure and his epigones, Juri Lotman established the first semiotics journal, using therefor the very name and spelling originally proposed by Locke: Σημειωτική. Ironically, this correct stipulation for the doctrine of signs after only three issues was “corrected” by later editors to read Σημειωτική —concerning which change it can only be said that “they knew not what they did”, as detailed etymological study of the terms in question (Deely 2003a, 2004) amply reveals. But that is a side matter.

79. See my Preface, “A Global Enterprise”, to the 1989 corrected reprinting of Sebeok’s 1979 book, *The Sign & Its Masters*.

80. Sebeok 1987.

81. Sebeok 1998.

“Tartu-Bloomington synthesis”⁸²—as we might call the merger that Sebeok effected of Jakob von Uexküll’s Umwelttheorie with Lotman’s notion of modeling system—to form the basis for the whole development today of biosemiotics, the study of an action of signs throughout the whole of the living world.

As fate would have it, the joint statement of Sebeok and Lotman, however established in spirit between the two, was never to reach the stage of formal “joint statement”, by reason simply, as we may opine, of Lotman’s death in 1993. Yet it remains that the shift of semiotic studies from an arbitrary and stipulated model of sign to an experiential and cenoscopic understanding that the sign as vehicle produces its effects by way of an arrangement determined by the position occupied by any given idea, affect, object, or thing within a triadic relation (best explicated theoretically first by John Poinset in the early 17th century and then again more fully in the evolutionary context of our understanding of the universe today by Charles Sanders Peirce), was established globally through the work and influence of Thomas A. Sebeok.

Susan Petrilli, in the remarks cited in our opening paragraphs that semiotics is “a phenomenon more ‘of our time’ than it is of any time past”, is thus also correct in her view that Thomas A. Sebeok had come to stand as the 20th century “founding father” above all others, the “Master of the masters of signs”, by the time the 21st century dawned. We stand squarely in the first quarter of the first fully postmodern century, we may say, insofar as semiotics itself appears more and more distinctly as the positive essence of postmodernity as a philosophical—or, as Peirce would have us say, a cenoscopic—development, the first formation of a community of inquirers into the phenomenon of semiosis.

If today the question of physisemiosis stands open before us as a “final frontier” in the question of how far does the action of signs extend, it is to Sebeok that owe the general recognition of this frontier, even as we owe to Peirce, thanks to his laying down of the distinction between an *interpreter* and an *interpretant* “which need not be mental”—the initial drawing of this “line in the sand.”⁸³

2.11 After Sebeok and Beyond: Completing the Compass of Semiotic Understanding

Reporting on the 9–18 December 2009 “United Nations Climate Change Conference” in Copenhagen, Denmark, Zhao Cheng, Tian Fan, and Wei Dongze comment⁸⁴ that “History has shown once again that the biggest challenge of mankind [in the full sense of

82. As we will in this essay later see (note 114 below), the full realization of Sebeok’s aim in this matter would finally be achieved rather by the achievement of a “Tartu-Bloomington-Copenhagen school”, and only some years after his death.

83. See “Peirce’s Grand Vision” (Deely 1989a).

84. Zhao Cheng, Tian Fan, and Wei Dongze 2009: <<http://www.fmprc.gov.cn/eng/zxxx/t648096.htm>>.

“humankind”?) is mankind itself.” Where exactly in history this point has been proven or repeatedly proven the authors do not say. Yet we can say that nowhere in history has this point been demonstrated with the clarity and thoroughness that semiotics is able to achieve, simply by reason of the fact that the human animal emerges within history as the only animal able to become aware of and directly affect the one process on which the whole of the living world most completely depends, to wit, the action of signs or semiosis, in particular as that action leads to a *knowledge* upon which *control* of things as they are depends over and above (or “beyond”) our animal catexis of them as to our liking (+), dislike (-), or indifference (Ø). Not all things are signs, any more than all objects are things. But all things, even as all objects, are *knowable* only through and on the basis of an action of signs, which is what makes the consequences of human action upon the environment both something that can be known and something that (through understanding in its technological expressions) can therefore be controlled, which is the source of the “global” human responsibility for human action.

Now traditionally the human responsibility for human action has been termed “ethics”, and has been conceived principally if not exclusively with respect to the actions of human beings within the realm of culture. The realization of our larger responsibility for the *whole* of life on earth—sometimes termed “Gaia”, not in the ancient mythological sense but in the postmodern sense originally specified by Lovelock (1979 and after)—was slow in dawning. When Aristotle distinguished “speculative understanding” of the nature of things from “practical understanding” of the matters that fall under human control, the heavens were deemed eternal and unchangeable, as were also species on earth. Only individuals, and only earthly individuals, underwent birth and death (more exactly: “generation and corruption”), and the sphere of human control reached its maximum extent in the political control of the affairs of state. This view prevailed to the time of Galileo and Poincaré, when it quickly began to dissolve, a dissolution culminating, we might say, in the aftermath of Darwin’s famous work of 1859.

But once it had been discovered that not only earth but the whole of the universe is subject to generation and corruption, that not only individuals but also the very species into which individuals are born “come and go” and develop over time, it could only be a matter of time till it would be understood that human responsibility is not simply a matter of individual, family, and state, but a matter of life on earth as a whole and, perhaps eventually, even beyond our earth. When that realization combines with the discovery that it is semiosis—the Way of Signs—that leads “everywhere in nature, including [into] those domains where humans have never set foot,”⁸⁵ a whole new era of ethical understanding dawns. Speculative understanding as the ability to investigate and come to know the subjective constitution and intersubjective connections among

85. Emmeche 1994: 126.

things as they exist independently of animal cathexis now expands and extends practical understanding as far as science can turn its knowledge into technology, a development clearly presaged in Aquinas' observation⁸⁶ that "speculative understanding by extension becomes practical". And just as the basis of all human understanding, speculative and practical alike, is the action of signs, so the discovery that human control over things extends to a responsibility for the whole of life on earth, including but not restricted to the human, leads to the need for a rethinking of *ethics as stringently bound up with and derived from semiosis*—even as is speculative understanding.

This was a development that first began to be realized in semiotics only as Sebeok's individual life neared its end.⁸⁷ Always of ideology, Sebeok's seminal work in establishing

86. Aquinas 1266: Q. 79, Art. 11, *sed contra*. This insight Aquinas takes from Aristotle's c.330aBC book *On the Soul*. What has changed now—in our day—is only the realization that it is the whole of nature, not just the life of individuals on earth, that is subject to substantial change; whereupon speculative understanding becomes practically limitless in its extension of showing us further how the human animal can introduce into nature fundamental and far reaching changes, touching the heavens themselves—thus demanding an "ethical understanding" not at all confined merely to the realm of human interactions within "society and culture".

87. Yet here we may also note a curious parallel to the marginal status of Peirce in the original early-to-mid 20th century formation of inquirers into sign as a "community", i.e., as a commonly recognized focus within intellectual culture. As Peirce was marginal to semiotics in its initial phase as semiology, so his entry into the mainstream brought to general attention one the principal correspondents of his later years, the British Victoria Lady Welby. Welby became known generally, however (outside the Netherlands at least), in the Sebeokian universe of transition from minor to major tradition semiotics mainly, almost exclusively, in terms of her 1903–1911 correspondence with Charles Peirce (see Hardwick 1977), and as coiner (in 1896) of the term "significs".

In Italy, Welby's emphasis on the "values" or ethical dimension in the action of signs at work among human animals—which is the central meaning of the term "significs"—naturally enough caught the attention of Susan Petrilli, one of Sebeok's main collaborators on the international scene, and this led Sebeok to take an interest in the matter, reflected even in Chapter 13 of his last book (see Petrilli and Sebeok 1998). Now, as the 21st century completes its first decade, even as Peirce emerged in from the early 20th century "semiotic sidelines", so we seem destined to witness a similar emergence on the part of his correspondent, Victoria Lady Welby. The first major stage of this emergence, no doubt, is that recorded in the classic turn-of-the-century synchronic survey of semiotics by Ponzio and Petrilli 2005: Chap. 2 "About Welby", 80–137. But this "first glimpse" is as nothing by comparison with the just released volume, Petrilli 2009 *Signifying and Understanding. Reading the Works of Victoria Welby and the Signific Movement*, described by the editor of the series housing the 1,048–page work (Cobley 2009a: ix) as a work exhibiting a "degree of scholarship coupled with theoretical expertise and a vision for the future" that is "seldom to be met with in academic life." He concludes (*ibid.* x): "If you want to learn how important Welby's writings will be, start with this book." And he is right. (More than that, in my judgment Cobley is the heir to the editorial genius within the semiotic community of Thomas Sebeok himself.)

It is indeed, as Cobley (*ibid.*) says, Petrilli and not Sebeok who "makes Welby mean much to both the present and the future"; yet this very fact makes equally clear that it will be a long time before the various "moves beyond Sebeok" do not do so while bearing seminal limnings from the work of Sebeok's own lifetime, which more than any other synchronicity of the 20th century established what will be forever more semiotics "major tradition". The main point of Welby's significs leery (in line with what Sebeok

the experiential basis of semiotics as extending as far as we can precissively establish an action of signs to be at work in nature indeed is what makes him “belong to the timeless core of semiotics for every period”, as Tarasti put it.⁸⁸ Without speculative knowledge there is no practical knowledge, only animal cathexis reducing to the self-interest of the organism without regard for “things in themselves”. So it must be said that the work of Sebeok’s generation was to establish the foundations for our understanding of semiotics, while success at that huge task in turn made inevitable an “ethical development” of semiotic understanding—the extension of semiotics to encompass also the sphere of human responsibility bound up with and inextricable from anthroposemiosis. Thus “in the 1990s, semiotic research [came] to a kind of parting of the ways”, where the main line of development “instigates one to examine *the subject who makes choices*”⁸⁹ precisely as bearing responsibility through consciousness of what the “good of the whole” requires over and above yet *also as including* the self-interest of human animals.

The first book to announce this “tipping point” in the development of semiotic consciousness was Eero Tarasti’s *Existential Semiotics*, published in 2000, the penultimate year of Sebeok’s life and, fittingly enough, as a volume in the “Advances in Semiotics” series that Sebeok edited for the Indiana University Press. The development, long in gestation, was inevitable, needing only a clear and proper name. That name effectively arrived with the publication in 2003 of the book, *Semioetica*,⁹⁰ by Augusto Ponzio and

established as the major tradition in semiotics, and similarly to Peirce’s approach to the life of signs) i that it transcends pure descriptivism, to study signs and meaning in their ethical, pragmatic and even aesthetic dimensions, where semiotic theory intersects axiology. Thus signification, neatly within the major tradition, moves (or even *begins*) beyond the strictly epistemological and cognitive boundaries of the sign sciences as first defined semiologically, including specifically those of language and communication studies. Leading beyond the specialism of semantics as proposed in her day, Welby’s proposal of signification arises from the assumption that the relation between sign, meaning, and value is of central importance in every possible sphere of human interest and behavior.

88. Tarasti 2000: vii.

89. *Ibid.*: 87, italics added. Worth mentioning here as classic among the early semiotic studies of human subjectivity is Colapietro 1989; see also Sebeok 1977a, 1988c, 1989b.

90. As is often, almost normally, the case with decisive terms, this term “semioethics” did not spring simply full blown from the mind of Zeus, but is the outcome of a long series of intellectual reflection. Augusto Ponzio summarized the gestation for me thus in an email of 4 January 2010: “Semioethics was born in early 80s in connection with the introduction to Italian translations by Susan Petrilli of works of Sebeok, Morris, Welby, and my introduction and interpretation of Bakhtin’s, Rossi-Landi’s, Giovanni Vailati’s, and Peirce’s works. Our problem was to find a term which indicates study of the relation between signs and values, ancient semeiotica and semiotics. ...We coined terms and expressions such as ‘teleosemiotica’ ‘etosemiotica’, ‘semiotica etica’, in contraposition to ‘semiotica cognitiva’ (see the Italian edition by Bonfantini, Peirce, Charles Sanders, *Semiotics. I fondamenti della semiotica cognitiva*, a cura di Bonfantini et. al.; Torino: Einaudi, 1980)....”

“The beginning of semioethics is in the introductions by me and Susan Petrilli to Italian editions (in translation by Petrilli) of Sebeok, *Il segno e i suoi maestri* (Bari: Adriatica, 1985), and Welby, *Significato, Metafora e interpretazione* (Bari, Adriatica, 1985); in the essays we published in *Essays in Signification*, ed.

Susan Petrilli. Even as Sebeok established semiotics as a global phenomenon with the intellectual culture of the 20th century, so Ponzio and Petrilli properly identified the ethical dimension within global semiotics as *semioethics*—to wit, the attempt stringently to derive ethics within our understanding of semiosis as the “practical extension” of semiotic consciousness, an inevitable “sequel” thereto, as I have put it.⁹¹

It was the first move “beyond Sebeok”, but a move that became possible only because of Sebeok’s central role in shaping the future of the doctrine of signs by exposing the “pars pro toto fallacy” under which 20th century semiotics began, while shifting through that very exposure the foundation of semiotic inquiry from epistemological stipulation à la Saussure to cenoscopic investigation à la Poinot and Peirce.

3. Projecting What We Have Learned about Interdisciplinarity: from 330BC to 2075AD

Becoming conscious of the historicity of human thought with its depth dimension of collective experience, reaching back through generations long dead yet somehow alive now and influencing the unconscious and preconscious development of contemporary minds especially through language as “the House of Being” (in Heidegger’s sense),⁹² is one of the most essential and humbling dimensions of that metasemiosis we have come to call “semiotics”. Therein the semiosis underlying every age of cosmic and biological evolution begins to become conscious of itself in the human being as a semiotic self.

H. Walter Schmitz (Amsterdam: John Benjamins, 1990); in Susan’s books of the 80s such as *Signifcs, semiotica, significazione* (Pref. by Thomas Sebeok, Adriatica 1988), and my own of that period, such as *Filosofia del linguaggio* (Adriatica 1985).

⁹¹In a private note in the context of the International Colloquium ‘Refractions. Literary Criticism, Philosophy and the Human Sciences in Contemporary Italy of the 1970s and the 1980s’, Department of Comparative Literature of Carlton University, Ottawa, 27–19 settembre 1990 (in the discussion of my communication, *Rossi-Landi tra ‘Ideologie’ e ‘Scienze umane’*), I used the Italian term ‘Semioetica’, as displacement of ‘e’ in Italian word ‘semeiotica’: a play that indicates in Semiotics the ancient vocation of Semeiotics (of Hippocrates and Galen) for improving or bettering life. [See now Petrilli 2007.]

⁹²But in the title of three lessons of Curtin University of Technology in Perth, Australia with Susan I used still ‘teleosemiotica’: ‘Teleosemiotics and global semiotics’ (July–September, 1999, Australia, lecture tour: Adelaide University, Monash University of Melbourne, Sydney University, Curtin University of Perth, Northern Territory University of Darwin).

“The book of 2003 by Susan and me, *Semioetica*, is the landing, or final achievement, of this long crossing of texts, conceptions, and words, as it results in bibliographic references.”

91. Deely 2010: “Sequel: the Ethical Entailment of Being a Semiotic Animal”, 107–126. See also Deely 2004b, contextualizing the remarks of Petrilli 2004c in the same volume.

92. See Deely 2000.

Here, from within the synchronic perspective of 2010, I want to situate this ongoing development of the doctrine of signs as it presents itself to us today precisely as the *inherently interdisciplinary and transdisciplinary perspective and process* in and by which the whole of human knowledge is engendered and organized. Only by becoming conscious of this underlying process—semiosis—do we have the possibility to best organize, or at least *better* organize, our institutions and instruments of intellectual culture. As regards its completion, I address now a future task; but its beginning is now, now both as incorporating insights from authors past and as projecting in outline an outcome which will make of interdisciplinarity as semiotics institutionalized within the postmodern academy what specialization as ideoscopic science has been to the modern academy.

For it is high time to resolve the paradox imposed upon us by the modern period of philosophy's long history. The moderns spent almost three centuries trying to persuade one another that the human mind works in such a way that communication cannot occur. This sounds ridiculous, yet communication, presupposed to all argument and discourse, cannot possibly occur if the human mind works the way that Kant, for example, claimed that it did: namely, by forming mental representations behind and beyond which lay the reality of things (including that of other human selves). The development began, no doubt, with Ockham's doctrine that relation has no being of its own other than a mind-dependent being.⁹³ To take communication seriously, however, is to set out on the road to discovering that not only does relation have a being that can be mind-independent as well as mind-dependent, but that this indifference to the two orders is the *singularity* of relation among all the modes of mind-independent being; for all other varieties of mind-independent being are what they are *only* as mind-independent.

This "singularity" of relation, its positive indifference to circumstance as determining it now to the mind-independent order, now to the mind-dependent order, was used by Aquinas to reconcile the inner life of God as Trinity with the unity of God as *ipsum esse subsistens*. But it was John Poinset, in 1632, who was the first to latch on to the realization that the singularity of relation is precisely what makes *any and all* communication possible, whether within the Godhead among the Divine Persons, or between God and the world, or within the world between finite creatures of whatever sort. In short, it was Poinset who first explicated the point that *relation's singularity is the ground of the prior possibility of semiosis*, and the essence of semiosis wherever an action of signs succeeds to occur.

Thus semiosis effects the interweave between thoughts and things whenever and wherever communication occurs, verbal or otherwise. But why did it take so long for the human animals to realize that they are unique above all in being *semiotic*

93. See the treatment of Nominalism in Deely 2008.

animals,⁹⁴ able to recognize that there are signs and to investigate their action—upon which, it turns out, the whole of animal knowledge, not only that of humans, depends throughout—in contrast to merely using signs, as is true of all animals and even plants and (as it increasingly seems) of the physical environment even in its inorganic aspects of development as first leading up to and afterward sustaining life? The ancients thought of signs only in nature; the Latins took 1100 years to develop their general notion of sign as transcending the nature/culture contrast to the point where it became clear that triadic relations alone complete signs in their proper being; the moderns went adrift entirely, and took almost 300 years to conclude (little else was possible, given the parameters of their so-called epistemology) that there are signs all right, but only in and filtered by culture. Postmodernity began with Peirce’s recovery of the line of insight marked out by the premodern Latin development, and so semiotics of the 20th century, though launched with a modern myopia, soon enough (thanks to the later Latins, Peirce and Sebeok) expanded to its broader horizon of sign-activity throughout nature. But the whole picture, right up to the “postmodernity” of semiotics at the dawn of the 21st century, is clear testimony to Peirce’s observation that⁹⁵

it is extremely difficult to bring our attention to elements of experience which are continually present. For we have nothing in experience with which to contrast them; and without contrast, they cannot excite our attention.

... The result is that roundabout devices have to be resorted to, in order to enable us to perceive what stares us in the face with a glare that, once noticed, becomes almost oppressive with its insistency.

For those who have become reflectively aware of the action of signs, semiosis is as clear as day—oppressively or blindingly clear, as Peirce might say; yet for that as-yet-much-larger multitude who have still to realize the dependency of objects upon signs, and the derivative status of things from objects experienced, “much as a pair of blue spectacles will prevent a man from observing the blue of the sky”, so will everyday awareness of objects as “things” prevent one from observing the action of signs underlying all awareness.⁹⁶

94. This notion indeed constituting a *postmodern definition of the human being*, one which transcends patriarchy and feminism alike, even as it supersedes the ancient and medieval notion of “rational animal” and (even more) the modern notion of “thinking thing”, thanks to semiotics’ bridging (as Baenziger remarks on the jacket of Deely 2010) “the chasm of modern philosophy”.

95. Peirce 1894: CP 1.134.

96. Thus semiotics provides the answer to Heidegger’s question (1927: 437), “Why does Being get ‘conceived’ ‘proximally’ in terms of the present-at-hand *and not* in terms of the ready-to-hand, which indeed lies

Aristotle had a broader conception of psychology than did Saussure. Nonetheless, when he proposed for consideration his famous triangle of mental states, outer things, and utterances communicating between the two,⁹⁷ he anticipated Saussure's notion that it was to psychology that we should have to look to understand the interweaving of these three elements. Not until the 1632 Treatise of Poinsoit would we find a full statement to the contrary, a statement to the effect that it is the action of signs, not psychology, that provides the basis for communication by logical or any other means!⁹⁸

3.1 Tracing from Within the Present a Long Trajectory

Let us then introduce into our current synchronic view elements from the larger diachrony of our investigation's subject matter, both elements which long antecede our synchrony (from c.330BC), and elements which project beyond the possible duration of our present synchrony (to 2075AD or so). By that time we may reasonably expect that the synchronic conflicts between modern specializations and the need for a cenoscopic framework allowing an overview of ideoscopy within intellectual culture should largely have been resolved—or so we are entitled to hope. Here I can do no more than to lay out some preliminary reflections on this problem of how to “fit semiotics in” to the institutional university structure. After all, it took a couple of centuries for the traditional

closer to us?”—“closer” indeed generically as animals, but not at all closer species-specifically to semiotic animals, at least not once actively engaged analytically in metasemiosis.

97. Aristotle c.330BC: *Περὶ Ἑρμηνείας* (Latin: *Perihermenias*) 16a3-9 (Greek text from Bekker 1831): “Ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα, καὶ τὰ γραφόμενα τῶν ἐν τῇ φωνῇ. καὶ ὡς περ οὐδὲ γράμματα πᾶσι τὰ αὐτὰ, οὐδὲ φωναὶ αὐτὰ. ὧν μέντοι ταῦτα σημεῖα πρώτων, ταῦτα πᾶσι παθήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταῦτα. περὶ μὲν οὖν τούτων εἰρηται ἐν τοῖς περὶ ψυχῆς. — ἄλλης γὰρ πραγματείας.”

Aristotle *Perihermenias*, 16a3-9, Latin trans. from Boethius c.514AD: “Sunt ergo ea quae sunt in voce earum quae sunt in anima passionum notae, et ea quae scribuntur eorum quae sunt in voce. Et quemadmodum nec litterae omnibus eadem, sic nec eadem voces; quorum autem hae primorum notae, eadem omnibus passiones animae sunt, et quorum hae similitudines, res etiam eadem. De his quidem dictum est in his quae sunt dicta de anima—alterius est enim gemitii.”

Aristotle *On Interpretation*, 16a3-9, English trans. from Edghill 1926: “Spoken words are the symbols of mental experience and written words are the symbols of spoken words. Just as all men have not the same writing, so all men have not the same speech sounds, but the mental experiences, which these directly symbolize, are the same for all, as also are those things of which our experiences are the images. This matter has, however, been discussed in my treatise about the soul, for it belongs to an investigation distinct from that which lies before us.”

98. Poinsoit 1632: “Remarks on Aristotle’s *Perihermenias*”, 38/1-2, and 11-19: “Libri Perihermenias sic vocantur quasi dicas ‘de Interpretatione’.... Sed tamen, quia haec omnia tractantur in his libris per modum interpretationis et significationis, commune siquidem Logicae instrumentum est signum, quo omnia eius instrumenta constant, idcirco visum est in praesenti pro doctrina horum librorum ea tradere, quae ad explicandam naturam et divisiones signorum in Summulis insinuata, huc vero reservata sunt.”

universities to figure out how to incorporate modern science—i.e., ideoscopic science, the kind of knowledge that could never be arrived at independently of experimentation with instruments extending the senses and mathematization of the results—into their academic structures. Up to the time of Galileo and even a while after, the universities had relied exclusively (but without recognizing its proper nature and limits) on cenoscopy, i.e., the kind of science that semiotics consists in. Within that earlier cenoscopy uncomprehending of cenoscopy's proper limits that was called "Scholasticism", the first establishment of the standpoint required for semiotic (Peirce 1867) came too late to head off the disastrous toppling of ideoscopy from its cenoscopic foundations, a toppling wrought by modern philosophy but precipitated by abuses of cenoscopy in the hands of religious and civil authorities.⁹⁹ If we succeed to reinstitutionalize cenoscopy, now *along with* the spectacular ideoscopic achievements of modernity, then we will have performed a great service indeed to the emerging global intellectual culture of the human species. But the success of this enterprise certainly exceeds my synchronic (though not diachronic) participation, and can be expressed in the present pages only after the manner of something like a prognostication. Borrowing Sebeok's words from a similar occasion,¹⁰⁰ and changing only the referent—the "*suppositio*", as logicians might want to put it—of the opening demonstrative pronoun used adjectivally, I now say that "This abductive assignment becomes, henceforth, the privilege of future generations to pursue, insofar as young people can be induced to heed the advice of their elected medicine men".

This third main section of the present essay intends no more than to provide an "indexical pointer", as it were, an extended index finger indicating a future outcome, to the problem of institutionalizing semiotics within the academic structure of the postmodern university world—or, as we might better put it, the problem of adapting the modern university specializations structure to an intellectual culture no longer modern but postmodern, and hence with no longer only an uncognized semiosis underlying but now also an overlying conscious semiotics at its identifying core.

Let us begin with a backward glance to c.330BC, then proceed by way of prescissive analysis to trace forward to 2075AD or so the trajectory that now appears now to have been launched by Aristotle's indication of the fact that an understanding of his words/things/thoughts triangle presupposes "some other science". In the process, we will discover that that "other science", suggested by Aristotle himself as what would develop in the Latin world and continue in the modern world as "psychology", and also "logic" (that one of the three original "liberal arts" concerned with discourse within the soul as

99. This is the tale I have tried to recount in *The crossroad of signs and ideas volume with Descartes & Peirce* as its main title (Deely 2008), a volume which, fortuitously, was published in the very week that 33rd Annual Meeting of the Semiotic Society of America opened in October of 2008 under the theme of "Specialization, Semiosis, and Semiotics".

100. Sebeok 1984b: 21, *in finem*.

the basis for writing and rhetoric alike), turns out to be—that “other science”—neither logic nor psychology, but semiotics.

3.2 The Triangle of Words, Thoughts, and Things

Aristotle's triangle, like all triangles, has three points or “termini” and three sides. The question is, what exactly are the three termini and, in terms of relations, what is represented by the three sides? In English, the three termini may quite accurately be said to be Words, Things, and “Passions of the Soul”, which are actually not *thoughts* properly speaking but rather *that upon which the formation of thoughts is based*, or those “specifications” resulting from the physical interaction of the animal's body with the surrounding environment of physical things out of which thoughts grow.

3.3 Pre-Modern Background to Understanding the Triangle

Later, the Latin commentators on Aristotle will develop these points in a terminology which, effectively, was lost in the transition from Latin Age to modern philosophy.¹⁰¹ In terms of that (lost) terminology, the *passiones animae* or “passions of the soul” are the forms of specification (*species impressae*) for developing thought which have their origin in the action of sensible things upon the senses, as these stimuli are *further* developed or shaped by the active interpretive response of the internal senses of memory, imagination, and estimation that together or “collectively” constitute, on the side of animal *Innenwelt*, the foundations or basis (*species expressae*, or “phantasms”) for the relations to the environment constituting the animal objective world, the *Umwelt*.

But these phantasms presenting to the animal its surroundings as interpreted are themselves transformed by the activity of the intellect itself (*intellectus agens*) from being *species expressae* as perceptual thoughts into being for intellection rather *species impressae*, specificative passions—specifying *impressions* passively received from the activity of internal sense, serving now not to interpret the outer surroundings, but rather *internally to activate the intellectus possibilis* as capable in principle of coming to know “all things”, the whole of being.

Thus, what for the brute animal are already thoughts structuring objects perceived, become now for the human animal transformed further into a new level of specificative *passions*. These are specifying impressions actively formed by the activity of internal

101. Maritain (1959: 115 text and notes) terms the *species*, both *impressae* and *expressae*, as being “terms without counterpart in modern philosophy”. The reader interested in the full details of the question—actually quite important for semiotics—is referred to the *Intentionality and Semiotics* treatment in Deely 2007: esp. Chap. 4, “Specifying forms, impressed and expressed-terms without equivalence in modern philosophy”, 23–32.

sense (just as the species impressae of external sense are actively formed by the activity of surrounding bodies upon the animal body) but now passively *received* rather from the activity of the intellect transforming the phantasms by adding to them the relation of “self-identity” into a new level of significative *passions* (i.e., specifying *impressions* passively *received* from the activity of internal sense now “made intelligible”).

In this way the phantasms, terminative for the activity of sense, are rendered mediative for the activity of understanding or “intellect”. As such, i.e., newly minted as *species impressae intellectus* from the *species expressae phantasiandi*, these “passions of the soul” are not yet impressions from things received via sense *actually* understood, but now at last impressions *able to be thought about intellectually*, and not only as sense-perceived). Only now, in response to *these* “*passiones animae*” (as “able to be intellectually considered”) does the human understanding in its proper and distinctive awareness come to life, responding to the phantasms (the *phantasma transformata*, as it were) in and by the formation of its own interpretive specifications of human awareness (*species expressae intellectae*, as opposed to the phantasms transformed into *species impressae intelligibiles*). This final product of intellectual activity, a product not of the *intellectus agens* transforming the phantasms into *species intelligibiles*, but of the *intellectus possibilis* itself (activated by phantasms-as-sense-impressions-now-intelligible) forming on its own *species intellectae* as foundations of relations¹⁰² to objects as they may exist “in themselves” (whether mind-dependently, mind-independently, or in any admixture of the two), constitutes what are commonly termed today “thoughts” or “ideas”—i.e., cognitive in contrast to cathectic psychological states—species-specific to the semiotic animal.

But this modern way of speaking ought not be allowed to blind us to that fact that these species-specifically human thoughts are possible only within and on the basis of the generically animal thoughts which are not species-specific to human animals but are rather generically common to all animals as living in a world of cognized objects irreducible to physical things because they are cathectically organized not in the same way that the things are organized but precisely and rather according to the interests and sophistication of the animal perceiving.¹⁰³

102. I.e., just as the phantasms as *species expressae* of memory, imagination, and estimation are terminative productively but not terminative cognitively, just so the *species expressae* of understanding are terminative productively but as produced serve only and further to provenate relations having objects as their termini. Thus the characteristic of all thought (*species expressae*), generically animal and specifically human equally, as Poinset best and most clearly put it (1632: Book II, Question 2), is to present what is other than itself, and so to exist and function in the capacity of sign-vehicles; but whereas generically animal thought terminates always and simply at objects as related to the animal, specifically human thought adds to this awareness as self-interested (transforming it without displacing it) the further dimension of awareness of these same objects as involving things in themselves.

103. The earliest formulation I have found of this insight that will become central to the doctrine of signs in

3.4 Modern Attempts to Semanticize the Triangle

But we can see even from this brief summary that it is already an “over the top” interpretation of Aristotle’s triangle to render the “passions of the soul” without qualification as “thought”,¹⁰⁴ and to treat the triangle as fundamentally “semantic”, apparently just because it involves “words” as one of its three terms—as we find first in Gomperz (1908), perhaps most famously in Ogden and Richards (1923),¹⁰⁵ and later in the unsound attempts (such as Kretzmann 1967, 1974; esp. O’Callaghan 2003; *inter alia*) to make of this characterization a “Thomistic” interpretation of Aristotle.¹⁰⁶

Yet it must also be said, in favor of the influential semantic use made of the triangle in that seminal work on meaning by Ogden and Richards, that there are no “words” *until* ideas or concepts have been formed as *incorporative* of the passions of the soul. So we should keep well in mind, while considering this seminal text of Aristotle c.330BC *On Interpretation* 16a3–8, its author’s own caveat (italic added): “This matter has, however, been discussed in my treatise about the soul, for it belongs to an investigation distinct from that which lies before us”. Hence the relevance of the above summary of the Latin commentary tradition on the works of Aristotle, from the time of Albert the Great, the principal teacher of St Thomas Aquinas and the first of the Latins to comment on the full *corpus* of Aristotle’s writings, down to the time of Poinso, who first established the irreducible triadicity of the relational being proper to signs.

Poinso’s work, to the Umwelttheorie of Jakob von Uexküll, and to contemporary semiotics through and after the work of Sebeok, is in Cajetan 1507: in I.1, art. 3: “aliae enim sunt divisiones entis in esse rei, aliae in genere scibilis” (cited by Poinso 1632 at 149/44–46).

104. An attempt to trace the complex origin of the “passions” in the interactions of the human body with surrounding bodies (perhaps in some contradiction with his more general *res cogitans/res extensae* metaphysics) without, however, particular regard to either Aristotle or his triangle, was made in the earliest days of modern philosophy by none other than Descartes himself (1649), in the last of his works to be published in his lifetime.

Interestingly, Descartes’ treatment of the “passions” concerns what we would today call cathectic psychological states no less than the cognitive ones. It is a kind of sketch of psychology with an eye to moral philosophy, more relevant to the understanding today of Umwelt theory (in the matter of how the animal organizes its cognized surroundings in terms of objects cathected as +/0/) than it is to the question of the triangle now before us.

105. This book, *The Meaning of Meaning*, without doubt made the triangular model much as Aristotle had long ago suggested a central focus in the 20th century semiotics development. See, e.g., “Working with Interpreters of the Meaning of Meaning. International Trends among Twentieth-Century Theorists”, Petrilli 2008b: Essay #2, 49–88.

106. See details in Deely 2008d.

3.5 Aristotle's Caveat on the Need to Understand the Triangle Through "An Investigation Distinct" from Inquiries into Logic and Language

Thus, as we look back on the statement of Aristotle's triangle at the opening of his *Perihermenias* or "On Interpretation" text, we have to note carefully two things: not only that "In these books Aristotle treats principally of the statement and proposition", but also that he opens this treatment by mentioning a triadic structure which, as he himself puts it, "belongs to an investigation distinct" from the matter of spoken and written forms of linguistic communication, a distinct investigation which is not only prior but indeed foundational to the inquiry into logical discourse.

Poinsot, in his own remarks on the text introduced with Aristotle's statement of the triangle, points out that all the matters treated properly and directly in Aristotle's *Books on interpretation* "are treated in those books by way of interpretation and signification, since indeed the universal instrument of logic is the sign".

Then he turns to Aristotle's *caveat*, the matter of the distinct and prior investigation needed to understand the matter of the triangle as it will form part of the discussion, even if not fundamentally, in the "perihermenias books"—the books on the logical component or dimension of interpretation as linguistically expressible.

But here, we shall shortly see, Poinsot goes beyond Aristotle in a rather striking fashion. For Aristotle, the "passions of the soul" belonged primarily and broadly to the treatment of psychology¹⁰⁷—the *De anima*, which dates from the same period as the *De interpretatione*, indeed, but which Aristotle refers to as "already having been written" when he begins the *De interpretatione*.

3.6 Causality and the Relationships Within and Constitutive of the Triangle

Very important to note from the start, and keep in mind throughout, is the difference between *causal interactions* (Aristotle's categories of "action" and "passion") and the *relations* which are generated by and result from those interactions (Aristotle's notion of relation as a *distinct* category of mind-independent being in the very sense that Ockham and modern philosophy after Ockham will relegate exclusively to the status of mind-dependent being). The two are commonly—almost always, historically (which helps to explain the long delay in general establishment of a semiotic consciousness in the long history of cenoscopic science we call "philosophy")—conflated and confused. A causal interaction is commonly called a "causal relation", but this is no more true than it would be to call an offspring a "sexual interaction". Just as a child comes into being through a sexual interaction, but is for sure something distinct from, *over and above*, and subsequently

107. Recall Saussure's location of "semiology" as falling under "general psychology".

quite independent of that original interaction long since ceased, so it is with relations. Efficient causal interaction (*agere et pati*) requires physical proximity, but not so relations consequent upon physical interaction. “For far or near, a son is in the same way the son of his father”;¹⁰⁸ whence “distance neither conduces to nor obstructs the resultance of a pure relation, because these relations do not depend upon a local situation”.

3.6.1

Yet action follows upon being: as a thing is, so does it act (“*agere sequitur esse*”); and while the thing acted upon bears the traces of the action upon it, in turn, according to its own being (“*quidquid recipitur, secundum modum recipientis recipitur*”), the resulting relation thus necessarily bears the stamp of both action and passion—subject acting and subject acted upon. Thus, in speaking of the relations between “things” of the physical environment and “passions” of the soul (that is to say, initially, *the psychological effects* within the animal produced by the interactions within the sphere of awareness of its own body with the surrounding bodies making up its immediate environment), it is not indexicality that Aristotle foregrounds but rather the iconicity that follows upon interaction as indexical, the *formal resemblance* that survives the interaction itself and provides the basis afterwards for tracing even the indexicality—for example, in a forensics investigation.

3.6.2

And it is the same on the other sides of the triangle: Aristotle is focusing on the relations as suprasubjective modes,¹⁰⁹ rather than on the causal interactions that relations may involve or presuppose. Psychological states as they issue in vocal sounds, for example, are but creating outward effects *symptomatic* of the inward state. Words as physical sounds or marks (or movements), however symptomatic of inner states, are not thus *words*. As *words* physical sounds, marks, and movements have a *content*, informational or poetic, cognitive or cathectic, more or less pure or mixed, as the case may be; but that *content* depends upon an exaptation, a successful social stipulation and hence (eventually) a *custom*, thanks to which the words refer to the passions and to the things designated as *signified* alike *symbolically* rather than iconically.

108. Poinso 1632: *Tractatus de Signis*, Second Preamble “On Relation”, Article 1, “Whether there exist relations which belong to the order of mind-independent being”, 85/11–12 and 8–11.

109. Actually, Aristotle is thinking exclusively in terms of intersubjectivity, as the being relation has in the order of mind-independent *toón*; only with Poinso and the formal advent of semiotics will the focus shift to suprasubjectivity as the being singular to relation as transcending all subjective contrasts within the order of mind-independent being, including the contrast of *ens reale* as including both subjectivity and intersubjectivity to *ens rationis* and purely objective being as ontologically relative throughout, and hence suprasubjective in sign and signified whether or not intersubjective in any given case.

3.6.3

Thus, within Aristotle's triangle, the closest we come to indexicality directly considered is in the $\sigma\mu\epsilon\lambda\iota\omicron\nu$ as symptom¹¹⁰ relation between "words"—not as such, but as physical occurrences intentionally or unintentionally emitted in the behavior of the human being as an animal organism—and the psychological states or "passions"; whereas the *symbola* relations between words and passions (as also the *symbola* relations between words and things) depend rather upon the superposition or "imposition" of an intention upon those symptoms, whereby they are transformed "conventionally" to become not merely physical occurrences but also linguistic occurrences at the same time. And while as symbols the linguistic occurrences are usually and to a greater or less extent intentional, precisely as *symptoms* they need not be intentional. (I may groan in pain merely because of the pain suffered; or I may groan in pain mainly to gain sympathy from those around me—or, of course, both!) So, while passions presuppose indexical interactions with things, these interactions survive in the present mainly as iconic relations. And while words presuppose passions, they do not mainly iconically but rather symbolically represent the content of the passions. Hence only indirectly do words manifest the relation of passions to things, even when they themselves are used directly to speak about things.¹¹¹

110. On the general sense of as sign specifically narrowed to $\sigma\mu\epsilon\lambda\iota\omicron\nu$ as symptom, see Baer 1986.

111. Poinso 1632: *Tractatus de Signis*, Appendix A, 345/9–10 and 349/37–351/8: "Voces unica significatione significant res et conceptus...principalis [autem] significant... res, nisi forte ipsa res significata sit conceptus vel eius intentio. "Ratio est, quia ipse conceptus ordinatur ultimate et principaliter ad repraesentandam ipsam rem, sui est similitudo intentionalis. Ergo vox, quae solum est instrumentum ipsius conceptus in repraesentando et reddit sensibilem [here precisely enters the exaptation transforming Sebeok's 'root sense' of language into rather species-specifically human *linguistic communication*] ipsum conceptum, ad easdem res repraesentandas principalis ordinabitur, quia ad hoc ipsum deservit conceptul. Et licet instrumentum principalis videatur respicere suum principale, a quo movetur, quam effectum, quem facit, tamen hoc intelligitur in ratione operandi et agendi [that is to say, insofar as Secondness is presupposed to and involved within the Thirdness of thoughts as *signs*—as *other-representations*]. In ratione tamen repraesentandi, si id quod principale est [in the order of Secondness as causal interaction], etiam est repraesentativum rerum [that is, is *other-representative* introducing thus Thirdness beyond the self-representation of an effect to its cause in Secondness] et ad ipsam repraesentationem extendendam et manifestandum aliis substituit sibi aliquod instrumentum, praecipuum utriusque significatum est res ipsa."

This same cenoscopic point (that words in their application to things reveal ideas only indirectly) Poinso then expands in the technical terminology I have pointed out (following Maritain—see Deely 2007). It is an important point (though it disappears from the discourse of modern philosophy), because it clarifies the difference between the direct causality of Secondness and the indirect causality of Thirdness as semiosis (ibid. 351/14–40): "si dicas... conceptus seu verbum [interior] non significant principaliter res expressas, sed suum principium exprimens... ergo etiam verbum exterius principalis repraesentabit suum principium, scilicet conceptum, quam rem significatam et expressam, responderet conceptum seu verbum esse exhibitionem sui principii formalis, quod est species impressa fecundans intellectum experimentem, et haec repraesentat obiectum, cuius formaliter est species, et sic conceptus repraesentando suum principium formale repraesentat principaliter suum obiectum formale. Creaturae autem sunt obiectum secundarium et materiale, et ideo non principaliter repraesentatur a Verbo Divino. Ipse non

3.6.4

Yet from this very symptomatic relation of passions to words, an adaptive relationship alongside and underlying the exaptive symbolic relation of words to passions, secondary features of iconism between passions and words are inevitable intermixtures (entanglements) within the conventional or “arbitrary” relations between words and passions—exactly as Jakobson so late (1965) forced the Saussureans reluctantly to realize. As we will shortly see, Jakobson’s point penetrates deeper than even Lotman realized in exposing the inadequacy of the *signifiant/signifié* model as an answer to the question of semiotics: what is the being proper to and distinctive of sign? For dyads do not a triad make, however much Thirdness depends upon Secondness in multiple ways. What Lotman (1990: 6) considered to be the “unrejectable cornerstones” of modern semiotics prove not rather to be so much *rejectable as definitively regional* abstractions necessary to create the analytical fiction of *langue* as a purely synchronic “essence” not only “external to the individual” but further something the individual “by himself is powerless either to create or to modify”.

3.6.5

Ah yes, but insofar as this *langue* “exists only in virtue of a kind of contract agreed between the members of a community”,¹¹² while the individual “by himself” is powerless to create or to modify it, that same individual as a semiotic animal, even though happening to be a member of that “contractually bound community”, can indeed and often enough *does* succeed to modify the *langue* from without. This possibility of success obtains precisely because linguistic communication *is not* the primary but only the *secondary* modeling system within anthroposemiosis, exactly as Sebeok was the first to point out¹¹³ in his ingenious synthesizing of the work of von Uexküll and Lotman¹¹⁴ into a single vision of anthroposemiosis as not only a species-specific process but also always and essentially a generically animal process as well.¹¹⁵ *Within* anthroposemiosis overlapping

sequitur, quod verbum exterius repraesentet principalius conceptum, quia non est formale obiectum repraesentatum, sed principale significativum. Praeterquam quod vox non est naturalis expressio sui principii sicut conceptus, sed imposita et directa ad significandum id, quod conceptus.”

112. Lotman 1990: 5.

113. See Sebeok 1984a, 1987, 1988, 1989a, 1991a, 1991b, 1998.

114. See the Appendix to the present work, “Sebeok’s Synthesis: the Tartu-Bloomington-Copenhagen School”, below.

115. The point of Sebeok’s synthesis is that any exclusive focus on *language*, whether in the root sense of the species-specifically human adaptation within the Innenwelt as generically animal, or in the sense of linguistic communication as an adaptation of that biologically underdetermined adaptive feature, distorts the place in nature and biosphere as a whole of the human *as* animal. Such a focus—precisely the focus of “semiology” as originally conceived to be *the whole* of the “new science of signs”—distortively glosses over *generically* zoösemiosis both as regards the dependency of language in its root sense upon those

zoösemiosis, then, “linguistic communication” arises as an *exaptation* rather than an adaptation. Saussurean *langue*, we may say, is but the abstract model of that biologically underdeveloped feature of the human *Innenwelt* which, as exapted, created in the first place linguistic communication as the species-specifically human system indispensable for entry, beyond “society”, into the realm of culture as constituting finally the tertiary modeling system.

3.6.6

Synchrony in a near-geometric sense may be the essence of Saussurean *langue* as a secondary modeling system, but diachrony is the essence of language in the root sense from which *langue* is exapted. And precisely from the biologically undetermined human *Innenwelt* still generically animal come those changes “only in one or other of its elements” [i.e., the elements of *langue*] which are initially “outside the system” of *langue*, indeed, while it remains that “the systems [within *langue*] are affected by them”. Here already is decisive proof that synchrony, the essence of *langue* as a secondary modeling system, can *only as an abstraction* (comparable to the abstraction by which Euclidean geometry was achieved) even partially escape diachrony as a larger context within which evolution—cosmic, biological, linguistic—is inevitable, and from which *signifié* in the semiotic sense (*significatum*), in sharp contrast to the semiological sense of *signifié* (mental representation), cannot be omitted.¹¹⁶

larger processes and as regards the overlap thereof within anthroposemiosis. For it is the zoösemiosis with which anthroposemiosis is intertwined and interdependent even for the exercise of its species-specific communication as linguistic that constitutes that “primary modeling process” as a whole on the basis of which the biologically underdetermined feature of “language in the root sense” becomes accessible for exaptation in the first place.

At the *Innenwelt* level, “language” is anything but an independent feature: language in this root and at that level is precisely that—a *feature* within the larger whole of an *animal* modeling system, just as is any species-specific *Innenwelt* adaptation of the animal modeling system as giving rise to communicative channels distinctive of this or that group of animal individuals. Details of Sebeok’s argument are laid out in Deely 2007a.

116. Broden (2009: 20–21) puts it this way: Saussure’s “*Course in General Linguistics* seems to exaggerate the extent to which linguistics and its object of study can be defined as one, homogeneous, and neatly bounded and situated. The efforts deployed to this end effectively isolate language and its study from the rest of the social and natural world.... Similarly, while it founds its central ‘mechanism of language’ on fundamental cognitive processes, the essay describes both thought and sound as ‘amorphous’ before language as social convention constitutes each, thereby slighting the incidence of other sensory-motor processes and of mimetic learning.”

3.7 Brief Excursus on “Deconstruction”

Consider. In Aristotle’s triangle, as we are about to see, on side #1 (the base),¹¹⁷ words and things are directly connected only unilaterally, in a one-sided and 100% symbolic relation directly *from* the words *to* the things. There is no mutual relation, no *direct* relation back from the things to the words. To speak of, there is no iconicity, no indexicality. There is the direct relation through stipulation (and after custom) from words to things whereby the words are symbols, that is all; but there is no direct relation from the things back to the words. Here alone, we will see, could one have a chance to speak of something like “arbitrariness” with little or no entanglement of iconicity, “pure” arbitrariness. But not only does Saussure not look to this relation in his linguistic sign-model, he makes no direct place for it in the model, no place at all.

On side #2 of the triangle (things to thoughts), there is a direct, two-way relation between thoughts (as “passions of the soul”) and things, indeed; but this iconic, reciprocal relation has *no direct connection with words*.

On side #3 of the triangle (thoughts to words, words to thoughts), there is no single two-way relation between thoughts and words, *nor is there a single one-way relation between thoughts and words*. What there is on this side are one-way relations, one of thoughts to *words as symptoms* of mental representations (passions to vocal, gestured or written expressions), and a second of words to *thoughts as symbolized* (linguistic expressions to passions).

So, if we consider the relations in which *words alone are directly related* to anything other than themselves, we see that there are three such relations: 1st) there is a relation of words to things, which is a symbolic relation, “arbitrary” in the sense of wanting for any internal iconicity or indexicality; 2nd) there is a relation of words to thoughts inasmuch as the words symbolize the thoughts, a relation which is also arbitrary as wanting internal iconicity or indexicality directly yet not without *entanglement* therein; and 3rd) there is a relation of words to thoughts as *symptoms* (σημεία) thereof, which relation involves *both indexicality and iconicity*.

In Saussure’s arbitrary *signifiant/signifié* model, not only is side #3 of the triangle *the only side* taken into consideration, but within that side *only the second* of the *two distinct* one-way relations, the purely symbolic one, not the one of mixed iconicity and indexicality (the σημεῖον relationship) entangled with the symbolic relation.

So when Saussure says that the elements of linguistic communication are *arbitrary*, this is true concerning two of the three relations in which words are directly involved, but, of these *two* “arbitrary” relations of words, *only one*, the symbolic relation of words to thoughts, is considered and incorporated into the signifiant/signifié model, the *patron*

117. Section 3.8.1., below.

général. Jakobson and Lotman will, in effect, object that the *non-arbitrary* σημειω relation cannot be simply excluded from the *patron général*, because the “arbitrariness” of the *signifiant* to the *signifié* relation is irreducibly and inescapably entangled¹¹⁸ with the iconic/indexical status of words as σημεία.

Now, if we combine the “fact” of the twofold arbitrariness of words with the further “fact” of entanglement wherein “arbitrary” words as σύμβολα of thoughts are *at the same time inextricably as well* σημεία of these same thoughts, whence, inescapably, iconic and indexical elements that can be neither stipulatively controlled nor reduced to symbolicity enter into the *signifiant/signifié* “arbitrariness”, we have the basis for the prior possibility of what becomes, in the semiological work of Jacques Derrida, the project of “deconstruction”. Objects signified (i.e., significates in the semiotic sense, which need not be and usually are not mental representations¹¹⁹) are omitted from the Saussurean model, wherein the *signifié* is *never anything but a mental representation* in interplay iconically with other mental representations within the subjectivity of the user of *langue*.

Deconstruction is a project to which any and every text is thus (indeed!) a-priori liable. But, what needs to be noted—and what seems constantly to escape the notice of deconstructionist Derridean epigones—is that the ultimate source of the passions in the environmental interaction (both cultural and physical) of human animals with material surroundings objectified in turn imposes *indirect limits* on the deconstructive process,¹²⁰ just as more *directly* there is also need for consideration at times (though far from always, and deconstruction as a method marks a great advance in the understanding of this matter) of the “intentions of the author”. (Deconstruction as a process normally tends legitimately and systematically to leave out of consideration authorial intention as a factor in the construal of texts. Yet there are times when such intention as textual factor cannot be omitted from consideration without some distortion of sense at critical junctures, so far as linguistic signs have not only a customary and iconic dimension but also and always a stipulative dimension as well, which is exactly what separates them within the class of “customary signs” from the purely customary signs of the “brute” animals overlapping within the semioses of human animals, and conversely).

Thus the omission in semiology (i.e., in the Saussurean model proposed for sign-general) of a *signifié* in the semiotic sense of significate or “object signified”,¹²¹

118. See note 36 above.

119. The exception is the case of self-reflexion in a semiotic animal: see Poinot 1632: Appendix A, The Signification of Language, “On the relations between words, ideas, and objects”, 342–351, esp. 349/37–351/14 (focused below at note 163).

120. This is also discussed in Eco 1990, esp. Chap. 1.

121. And, as I have elsewhere noted (Deely 2009d, e, f, g), the “signified” in the expression “object signified” is tacitly redundant, made necessary only by sedimentation into late-modern national-language usage of the Cartesian reversal of the subject/object distinction as it had been developing toward thematic expression

which results in the complete elimination of the consideration of things-as-they-are-in-themselves from the theoretical ambit of semiological analysis, is exactly what leads (not necessarily, but in the practice of thinkers mistakenly thinking that the Saussurean dyadic sign-conception is indeed a *general* model, which it is not) to the abusive and narcissistic excesses of deconstruction (mis)construed and (mis)applied as a "universal method of linguistic and cultural analysis". This same blunder, expressed in several issues of the *History and Theory* journal over the last two decades, can be seen as the root of the dilemma in which some contemporary historians—falsely thinking that semiology as such is "postmodern"¹²²—find themselves unable to explain the difference between historiography and fiction.¹²³ This again is a logical consequence of failing to recognize the duplicity of the notion of *signifié* hidden (or lost) in the dyadicity of the Saussurean proposal for the being proper to "sign".

A valuable method and landmark contribution to the development of semiotic consciousness, deconstruction is but a tool among others for achieving textual interpretation, distortive however when it is (mis)taken for or (mis)represented as the "whole story"¹²⁴ (or even "last word") in the reading of texts. Deconstruction provides but a preliminary step, more -or-less useful depending upon how rigid the reading of a given text has become or is tending to become (as, for example—to take an illustration at the utmost extreme¹²⁵—in the view of some Muslim "believers" that Koranic texts are not subject to interpretation, and so cannot be translated into another language: the original or nothing!¹²⁶).

in the later Latin centuries, a reversal wherein "subject" acquired a dominant sense of "psychological" and object a dominant sense of synonymy with "thing"—in contrast to the semiotic sense where "object" means always the second of three terms under a triadic relation, whether or not the object *also* has a subjective existence along with its objectivity, and "subject" means always an individual unit here-and-now part of the physical universe.

122. On the question of postmodernity falsely so-called, see Deely 2001: 611, text with notes 1 and 2, and the whole of Chap. 16; cf. also Deely 1986 for a perspective on semiology as a sub-development within semiotics more generally as the doctrine of signs.
123. By far the most extensive treatment of the traditional "history discipline" in relation to semiotics, including this "contemporary" historiographical problem, is to be found in the writings of Williams Deely, beginning as early as 1982. A collected volume of these writings is in preparation as a volume in the Mouton de Gruyter "Semiotics, Communication and Cognition" series (SCC) under the general editorship of Paul Copley with Kalevi Kull.
124. Exactly as when the Saussurean dyadic code model for sign is represented as "the whole story" of semiotics. In such cases, at this point in history, what started out as a "pars pro toto fallacy"—the idea that the cultural sphere of sign action is the whole sphere of sign action, the original claim of "semiology"—molts into a "pars pro toto fraud", when an exclusively semiological approach to signs (mis)represents itself as semiotics without qualification, as in Chandler 2002. See gloss thereon in References.
125. There are similar controversies along this line, but back in the 16th and 17th centuries, over the translation of the Bible.
126. But of course, were it true that the Koran "cannot be interpreted", then it could not be *read* either or *understood in any language*, including its "original Arabic". For there are sounds but no words without

3.8 The Relationships Within and Constitutive of the Triangle

If we look at Aristotle's triangle now in this light, having as its three terms Words, Passions of the Soul (principally *species impressae* strictly, but also and secondarily *species expressae* as both source and indirect significate of words), and things, and viewing those terms against the background of the various causalities from which relationships arise in the first place, what do we find are the *relationships* that make up the sides of this triangle? What are the relationships that obtain among the terms of this triangular structure?

The question is not as simple as one might imagine, or as is usually supposed in the literature that has grown up around this triangle (in which literature, as far as I know, the *actual* relationships embodied in the three sides have never been scrutinized in detail). For analytical purposes let us label the base side of the triangle, between *words* and *things*, #1; then the side of the triangle from things to *passions* #2; and the side of the triangle between *passions* and *words* #3.

The choice behind this numbering is not simply arbitrary, but is based on the consideration of increasing relational complexity as we move around the three sides.

Triangle side #1 is the relationally simplest of the three: it involves only one single relation of symbolicity, and that one single relation is, moreover, univalent, obtaining only from the side of words as *fundamenta* to things as *termini* of a symbolic relation that has no component besides itself to make it anything other than "arbitrary", "conventional", or (most basically) "stipulated".

Triangle side #2 is likewise simple in involving but a single relation, this time of iconicity rather than symbolicity; and this one single relation is bivalent rather than univalent: the iconicity relation constitutive of this side of Aristotle's triangle obtains equally when we look from things to passions and when we look from passions to words.

Triangle side #3 is the side that is most complex relationally. It does not involve one single relation, but two relations, neither of which is bivalent and each of which is univalent, but in opposite directions. When we look from the words to the passions, exactly as when we look from the words to the things, we find only one single univalent relation of symbolicity. But unlike the univalent symbolic relation of words to things, the univalent symbolic relation of words to passions as constituting this side of the triangle does indeed have another component besides itself which interferes with the "purity" of its symbolicity, and hence, as we will see, with the propriety of labeling it

involvement of concepts, and concepts differ from sensations precisely in *being* interpretations, *species expressae*, as we saw in Section 3 above. To have a thought is to have an interpretation of that thought's object, be it also a thing or "purely objective"—as in the case of a book "not subject to interpretation", or a square circle, etc.!

simply “arbitrary” in whatever sense of that word we care to choose. For *in order to be symbols*, and not merely physical marks or sounds or movements, the symbolic relation between words and things presupposes a *symptomatic* relation between the words and the passions. *This* relation, obtaining when the “words” are looked at from the side of the passions as symbolized, imports into the words indirectly, or “secondarily”, as Jakobson puts it, precisely elements of the iconicity in the passions and ideas deriving from them that environmental things introduce into the awareness of animal organisms in the interaction between the animal bodies and the bodies surrounding the animal bodies.

In order to appreciate the relevance of Aristotle’s triangle to the doctrine of signs, bear in mind that the question of the being proper to relations, the *singularity* of the indifference of relation to all the subjective divisions of being which makes semiosis in the first place possible at all, is undoubtedly the *ground-question* of semiotics. The *guide-question* is rather the question of the relational being itself of signs as involving irreducibly three terms in any fulfillment of semiosis as the action consequent upon that being, and consider that two of the three terms of Aristotle’s triangle are actual signs (words as words and passions as thought), while the third term, things, are as potential objects products (significates) precisely of the action of signs, able to become, moreover, signs in their own right as well as objects. With these two considerations in mind, the relevance of Aristotle’s triangle to the doctrine of signs, if not (as we will see) the triangular imagery or representation itself, is undeniable. It is this relevance that we want precisely to identify in the elements provided by each of the three sides of this triangle—this, as we will see, *presemiotic triangle*—so often mislabeled as rather (I have committed this error materially¹²⁷ myself on previous occasions) a “semiotic triangle” or “semantic triangle” or “triangle of meaning”.

Let us, then, examine each of the sides in turn, to see exactly what of relation they involve.

3.8.1 *The triangle side #1 between words and things*

Looking at the side of the triangle representing a relation between words and things, the most striking feature is the *poverty* of the relationship which constitutes this “side”. The relationship is purely one-sided, one-way, and exclusively symbolic, as close to empty of indexicality and iconicity as could be. Whatever there is of indexicality depends wholly on the will or “intention” of the speaker, his or her freedom to *stipulate*, Alice-

127. I say “materially” here in contrast to the scholastic sense of “formally”, in the sense that my use of triangular diagrams in earlier chapters, as in Figures 6 through 8, or even Figure 3, nonetheless conceptually cannot be reduced to dyadic combinations, for the irreducible triadicity of the sign relation, already established by Poinset and confirmed by Peirce, was explicitly in my thinking from my earliest writings in semiotics (e.g., Deely 1982: *Introducing Semiotic*).

in-Wonderland fashion.¹²⁸ Whatever there is of iconicity is twice-removed from the things objectified, i.e., the things as spoken about, derivative exclusively and indirectly from the “passions of the soul”, and only thence, if at all—“twice-removed”, as has been said—from the objectified things (through their more direct influence on the passions in the interaction of the animal body with its physical surroundings). Thus, while there is a relation of words to things, there is no *direct* relation at all back from things to the words discussing or “naming” them.¹²⁹ And the one-sided relation of words to things, with no *direct* relation at all back (from the things spoken about to the words spoken), is simply that of convention and culture, a matter of *σύμβολον*—nothing more, nothing less, nothing besides.

But of course the “things as things” are never quite wholly even when partially the same as the “things as objects”; and while the things spoken about as things are normally wholly independent of the words used to speak about, denote, refer to, or name (actually: *to signify*) them, the things as objects have no such total independence, so that even on this side of the triangle “the conventional dimension of languages”, as Broden points out,¹³⁰ can be said to “represent ‘genuine institutions’” definitely constraining the Alice-in-Wonderland sense of “arbitrariness”. In short (*ibid.*), *stipulation* as a matter of individual will is never the whole story, even on this weakest side of the triangle: even here, “arbitrary” means “fixed at a moment in history through their use [i.e., the use of linguistic signs, words] by a given community”, even though “ever subject to change in the process of their transmission through time and individual speakers.”

128. “When I use a word”, Humpty Dumpty said, in a rather scornful tone, “it means just what I choose it to mean, neither more nor less”.

“The question is”, said Alice, “whether you can make words mean so many different things”. “The question is”, said Humpty Dumpty, “which is to be master—that’s all”.

129. And here it is worth recalling Augustine’s profound point that all words, as items of linguistic communication, be they nouns or verbs, pronouns or adjectives, categorematic or syncategorematic—all items of linguistic communication taken in their distinctive and proper being are *names*.

130. Broden 2009: 15, which echoes i.1907–1911: in the Baskin trans. p. 76. Poincot, approaching this matter from the side of “ideas” as so-called “formal signs” (that is, psychological states which signify whether or not they are themselves objectified) rather than from the side of “words” as “instrumental signs” (that is, material realities of the physical surroundings which must be themselves objects of awareness in order to function also as signs), nonetheless echoes the point made much more straightforwardly by Saussure and Broden: see *Tractatus de Signis* Book III, Question 4, on the “Distinction inter conceptum ultimum et nonultimum”, 334/1–340/4. See note 141 below.

The weakness in this aspect of Poincot’s semiotic analysis appears precisely in the hindsight of our understanding of language as a secondary modeling system in the shaping of individual identity. Broden (2009: 27) well states the situation as it appears to us today: “From the foundational *I-thou* relation spring both speech and the subject; language no longer appears as an external instrument of communication which the individual freely manipulates, but rather as the symbolic and dialogic dimension in which subjectivity and especially intersubjectivity are constituted.”

Nonetheless, when Saussure speaks of language as the *patron général* for a science of signs and identifies the signs of language as “arbitrary”, the “common sense” response of the unsophisticated reader or listener is to think precisely of this relation of words to things as the paradigm of arbitrariness in the sign/signified model. But of course, in thinking thus, “common sense” as usual (or at least all too often) leads directly to a theoretical disaster. For not only is Saussure *not* thinking of the relation of words to things as signifieds, but there is also in fact *no direct place in his system of langue* which includes objects in the sense according to which they can be partially identified with things existing independently of thought. That is to say, the Saussurean model of sign has no place for the *object signified*, but only for the idea or “thought” which words in their common usage seldom signify directly at all outside the specialized discourses of philosophy, psychology, and some social sciences,¹³¹ *on the basis of which* objects are signified and also things become objects.

For once it is understood that the difference between a sign and an object lies in the difference between self-representation and *other*-representation, it becomes possible to understand the formula that Peirce took from the Conimbricenses, that “all thought is in signs”—because that is precisely what thought consists in (the representation of what is *other* than the thought itself, namely, its object, whether that object is also a thing independent of thought or not). Things objectified represent themselves in awareness, but they do so only on the basis of the other-representations presenting things in awareness, thoughts as signs. When in turn objects signified become themselves signs they no longer represent only themselves but *something else* as well. Thus, whether the vehicle of signification, the “sign” in the sense of some individual or aspect thereof, is first of all a material object or first of all a psychological state, in both cases it is the element of *other*-representation that makes the sign be a sign. And this represented other is presented to or for some third—the animal perceiving, for example: hence the triadic character of the sign-relation in every actual semiosis.

“Common sense” might suggest that this words-things “side” of Aristotle’s triangle would best have constituted Saussure’s model of the *patron général* for his (false) idea that a “science of signs” can be constructed on the foundation of the “arbitrariness” of linguistic signs. Thinking in this “common sense” way, however, quite misses Saussure’s objective abstractly to constitute *langue* as a system (a geometrical synchrony) complete unto itself, “self-contained”, as it were (and is likely to miss as well Saussure’s central insight in finding a way, as Broden puts it,¹³² to describe language “holistically as a *system* constituted by relations”). We can see from Aristotle’s triangle that indeed words

131. See the text from Poinset 1632: *Tractatus de Signis*, Appendix A, 345/9–10 and 349/37–351/8, cited in note 111 above.

132. Broden 2009: 11.

considered as “signifiants” are “arbitrary”—arbitrary in relating as *symbola* to their *signifiés*, and this is so whether we take the *signifié* to be the passions (Saussure’s own taking) or whether we take the *signifié* to be the things objectified “about which” the words are spoken, as do the more “naïve” interpreters of Saussure relying over-much on “common sense”.

But we can also see that this “arbitrary” relation of Saussure’s model, whether on the misled “common sense” taking or on Saussure’s own theoretical taking, presupposes rather than includes a “missing third”. On the common sense mistaking, it is the interpretant (in this case a mental representation, the “concept” or “idea”) that is missing. But on the Saussurean theoretical taking, what drops out of the *signifiant/signifié* is rather the objectifiable things as things that language can be and normally is used to speak of.¹³³

Yet there remains the fact, even in the theoretical taking of Saussure, as we will see when we come to examine the third side of the triangle (the words/passions side), that words are symptomatic *indexically* of passions *iconically* related to the very “things” to which the words themselves lack both symptomaticity and indexicality as directly necessary elements (and which Saussure hence omits from his model). Only when is added, however, the nonarbitrary but indirect yet indexical/iconic connection of words to things *via* the passions as caused by the action of things, only then do the words *fully* exist as signs *actually* signifying in direct speech—so that, as Poinot put it in his original establishment of the sign as triadic,¹³⁴ not dyadic:

133. And indeed they are no part of linguistics on any accounting, but rather the concern of the ideoscopic “hard sciences”, including biology, where, however, in zoösemiosis, as semiotics has made unmistakable, linguistic communication finds itself in an unavoidable overlap with nonlinguistic channels of animal communication.

134. Poinot 1632: *Tractatus de Signis* Book I, Question 3, 154/5–30: “Ut ergo non solum pure obiective, sed etiam significative respiciat potentiam, inquirendum restat, an illamet relatio, qua significatum respicit, et in ordine ad quod rationem signi induit, illamet etiam respiciat potentiam, cui signatum hoc manifestandum est a signo; an vero relationem habeat ad signatum purificatam et absolutam a respectu ad potentiam, alia vero relatione respiciat potentiam in ratione obiecti, et utraque concurrat ad rationem signi constituendam, vel etiam in ipsa ratione signi praeter rationem obiecti reperitur duplex relatio, altera ad potentiam, altera ad signatum.

“Et consurgit difficultatis ratio, quia ex una parte signum non respicit solum signatum in se, sed in ordine ad potentiam, cum in definitione signi ordo ad potentiam includatur, scilicet quod sit manifestativum potentiae etc. Si ergo ratio signi respectum istum dicit ad potentiam, vel unica et eadem relatione respicit utrumque, et currunt difficultates infra attingendae, quia sunt termini omnino diversi, cum respectu potentiae sit solum relatio rationis: respectu signati sit ordo mensurati ad mensuram, respectu potentiae e contra potentia sit mensurabilis ab ipso signo ut ab obiecto cognito. Vel est diversa relatio signi ad potentiam et signatum, et sic non erit signum in praedicamento relationis, quia in ratione signi non est unica relatio, sed pluralitas relationum.

“Sit nihilominus conclusio: Si potentia et signatum considerentur ut termini directe attackti per relationem, necessario exigunt duplicem relationem in signo, sed hoc modo signum respicit potentiam directe ut obiectum, non formaliter ut signum. Si vero consideretur potentia ut terminus in obliquo

Only when the mind is considered as a term attained by the word indirectly do we see that the significate attained by the word directly is involved as sign in one single relation of three terms [that is to say, in an irreducibly triadic relation], which relation alone constitutes the proper and formal being of the sign as sign.

In other words, in actual speech, in “ordinary language”, the *signifié* is an object signified, a “*significatum*”, in precisely the sense left unconsidered in the terms of Saussure’s model, and only indirectly or secondarily is the *signifié* the psychological state of the language user, as Saussure postulates for the direct and restricted purposes of his system.¹³⁵ We shall return to this point when we reach an examination the third side of the triangle, where we will be able to identify the root of the “debate”, as Lotman calls it, between Saussure and Jakobson.

3.8.2 *The triangle side #2 between things and passions*

We turn now to the second side of our triangle, the side representing the relationship between things of the world and passions of the soul. This side is in a way, if not the simplest, at least the most straightforward of the three sides. It involves a relation that is single but bi-lateral, thus perfectly symmetrical, in contrast to the single relation between words and things which is unilateral and hence asymmetrical. Things are related to passions of the soul most fundamentally in exactly the way that passions of the soul are most fundamentally related to things of the world: as *μοιώματα* —“likenesses”. *Ager facit simile sibi*: an agent stamps its likeness on its effects. Thus are the “passions” and the things as producing them likenesses of one another, reciprocal likenesses, indexically constituted from interactions between animal organism and physical surroundings, the passions related as iconic effects of the things as causes¹³⁶ brought about by the interaction

attactus, sic unica relatione signi attingitur signatum et potentia, et haec est propria et formalis ratio signi” (italic added).

135. “Following Bréal,” Broden notes (2009: 11, citing Saussure i.1907–1911: 99–100, with cross-references) “a natural language and the human ‘linguistic faculty’ that informs it represent not an external object but a cognitive phenomenon for a subject: ‘Synchronic linguistics will be concerned with the logical and psychological relations that bind together coexisting terms and form a system in the collective mind of speakers.’”
136. We can see from this consideration how Boethius’ choice of a Latin term—*nota*, a synonym of *signum* but with the connotation of an “index”, closer to *μοιώματα* and *σημεία* as “symptoms” than to *σύμβολα*—to designate all three sides of Aristotle’s triangle, whereas Aristotle himself had used *σημείν* both narrowly (in the sense of symptom) and for only one relation on one side of the triangle (see Boethius’ text in note 97 above) threw Pedro da Fonseca into a fit when he read Aristotle’s own Greek text for himself, rather than through the eyes of the earlier Latins ignorant of Greek who had relied upon perforce the rendering of Boethius. It was one of the most dramatic moments in the whole Latin development of semiotics, one which had a shaping influence on Descartes’ college years and in its own time threatened to derail the Latin discussion of sign as it had developed independently of ancient Greek philosophy in the Latin centuries after Augustine and Boethius. See Deely 2001: Chapter 9, “Three outcomes, two destinies”; 411–446.

of the animal body (be the animal human and semiotic or brute and semiosic only) with the surrounding bodies of its immediate environment.

Precisely here does the fuller treatment of the *De anima* that Aristotle refers to enter in to the consideration of his triangle. While practically everyone in philosophy today, across the schools, is in agreement that philosophy is about “experience” above all, it was not so in ancient Greek and medieval Latin times. Ancient and medieval philosophy took as the primary concern the reality independent of experience, not experience as involving an interweave of mind-dependent and mind-independent being; and of experience itself they had an exceedingly narrow view, amounting to little more than Aquinas’ definition of sensation as “*actio sensibilis in sensu*”—the action of the sensible thing upon the sense organs of the animal body.¹³⁷

Thus, when Aristotle spoke of the “passions of the soul”, he had in mind primarily *both* the beginnings of animal awareness (or “knowledge”) and the constant tie-in of that knowledge to the sensible world of interacting things—albeit among human animals (as we saw above) as that chain of “ties to sensation” is the initial point of departure in understanding for the formation of properly intellectual concepts (or *species expressae intellectae* in contrast to the *species impressae intelligibiles*), which are themselves tied to the *species impressae sentiendi via the species expressae phantasiandi* or “phantasms” without which there could be no human knowledge at all.

“*Sensatio est actio sensibilis in sensu*”—“sensation is the action of a material object upon the animal body’s organ of sense”: this action belongs to the order of brute Secondness as a dyadic interaction; but because *agens facit simile sibi*, because an agent produces an effect in the likeness of its being as acting, the resulting relation which survives the dyadic interaction of “cause and effect” (or “agent and patient”) is necessarily and irreducibly an iconic relation, even as bespeaking or revealing (through iconicity) the indexicality of its origin.

Again, we are dealing with an aspect of the ancient triangle that is crucial for the understanding of semiotics (omitted from the *signifiant/signifié* model, nonetheless), inasmuch as sensation (even as prescissively prior to the formation of those other-representations or “concepts” by which *all animals* evaluate what of their physical surroundings they become aware of in sensation) is already a semiosis. As such, it

137. “Realism”, for the ancients and medievals, had a much narrower focus than what that term evokes in modern and postmodern philosophy (see Deely 1992b, the tenth reading in Copley Ed. 2009a, for details; consult also relevant essays in Copley Ed. 2009). The term connoted and denoted purely and simply the role of the senses in knowledge. And indeed, true to the medieval heritage, this focus corresponded exactly to the manner in which experience was defined, both in the Thomistic line and among the Latins generally, as writers of the period testified (see, for example, the authoritative summary of Poinset 1632: 306/13–307/4, in which the physical presence of a thing acting upon an external sense organ is described as “the paradigm case of experience”—“*est ipsamet experientia*”).

involves from its first moment and throughout triadic sign relations whereby, in this case, the common sensibles on the basis of the proper sensibles make the animal aware of its surroundings (sights, sounds, smells, shapes, movements, positions, etc.) as in need of evaluation for purposes of the sensing organism's well-being an survival.¹³⁸

3.8.3 *The triangle side #3 between passions and words*

The relation between passions and words turns out to be not one but two quite different relations depending upon which way we look at. It also turns out to be the *only* side that is given consideration in Saussure's *signifiant/signifié* model, upon which he vainly thought to found a complete "science of signs". But let us focus on the relations constitutive of this side.

Looked at one way, words must be said to appear as and to be *σημεία*, not in the general sense of "signs" but in the specific ancient sense of "symptoms"—to wit, symptoms of the presence of thoughts, as certain red marks on the skin manifest the underlying presence of the viral disease measles, etc. But, at the same time, properly and in their own right as linguistic media of communication, words for Aristotle are not *semeia* in a less than generic sense at all, but must be regarded rather as *σημεία* (arguably a species of *σημείον* generically considered). They "words of language" belong thus to nature and to culture—but in entirely different *and* unconnected ways, considering only *direct* connections.

In the first case, we are regarding the words primarily in their physical being as sounds emitted by the animal, natural phenomena in the quite precise sense of forming part of the physical universe with its distinctive character of *to v*, what the Latins will call *ens reale* or "mind-independent being" (because it need not be known in order to exist—in the present case, a physical vibration or mark on some surface is what it is, even when no one regards it).

138. Poinso 1632: *Tractatus de Signis*, Book I, Question 6, 204/9–11 and 205/34–37: "Bruta proprie utuntur signis, tam naturalibus quam ex consuetudine"; et "non solum sensus interni, sed etiam externi in nobis et in brutis percipiunt significationem et utuntur signis." The theoretical importance of this point has perhaps been best stated by another cryptosemiotician, in this case Josephus Gretd (1924: iv): "Scripto nostro tamquam unica via ad idealismum vitandum manifestatur realismus naturalis integralis philosophiae thomisticae, cujus cardo in doctrina consistit de sensuum exteriorum cognitione intuitiva excludente quamcumque speciem expressam." But this implication too is anticipated in Poinso 1632: 312/3–6: "If the object of external sensation [precisively considered] exists in something produced by sense itself as in an image or effect, then that object will not be some thing sensed immediately but rather something sensed in the image, which image itself rather will be that which is sensed"—"Quodsi existat in aliquo sui ut in imagine vel effectu, non immediate videbitur, sed ut contentum in imagine, ipsa vero imago est, quae videtur." (Ah, if only Hume had read Poinso on this point which he thought no one had ever considered in other than the modern perspective making of ideas themselves—*species expressae*—the direct objects of knowledge in sensation! Certainly he could never have written as he did in 1748: Sect XII, Part I. Hume in this regard is discussed in Deely 2009b: Section 12.7–8., 152–156.)

But in the second case, we are regarding the words as cultural creations, instruments of conventions which differ between Greeks and barbarians, and barbarians among themselves.¹³⁹ They are not simple creatures of nature at all, but rather manifestations and expressions of *interpretations* (and hence of the *species expressae* discussed above, in contrast to the *species impressae*, which last are what constitute most properly and directly *passiones animae* both at the sensory and perceptual levels, as also at the intellectual level of the *species intelligibiles* rendered by the activity of the intellect out of the phantasms as *species expressae* of the animal Umwelt).

Thus if we consider the words in our triangle as sounds or marks, they are related to the passions of the soul as “signs”, all right, but only in one of the specific Greek senses of *semeia*, in this case natural signs such as practitioners of medicine rely upon—symptoms. As *semeia*, words are *symptoms* manifesting the presence in the speaker (or writer) of an underlying cognitive psychological state, the existence of which the words manifest, of which the words are “symptoms”—no different in this regard than groans manifesting pain. They are outward manifestations, whether Greek or barbarian, of an inward condition of the organism engaged in linguistic communication; and this without regard for what that communication may be or be intended to be.

But if we look back the other way, and consider the words not merely symptomatically but in terms of their *involvement with an intention or desire to communicate*, that is to say, as the result of a kind of choice made on the part of the speaker within a linguistic tradition (“*langue*”)—if we consider the words not merely as sounds or marks symptomatic of a psychological state, but rather as instruments fashioned for the purpose of communicating some content of awareness—in this way the words appear not as *semeia* or symptoms primarily at all but rather as *symbola*. The huge difference between the two is precisely the divide between *nature* and *culture* in the ancient way of understanding the two as oppositional.

139. Poinso discusses these differences quite pointedly in his 1632 *Tractatus de Signis* in Book III, Question 4—e.g., 337/31–41: “we say that concepts signify the same thing for all when they are about the same object and have been formed in the same way; for they are natural similitudes. Thus all non-ultimate concepts representing expressions (or voices) inasmuch as they are significative represent the same thing for all those among whom they are so formed. But if they are not so formed among all hearing them, owing to the fact that not all know the signification of the voices, then the concepts of the voices were not concepts of the same thing, and so will not signify the same thing for all.” So we can also say of the passions themselves at their most primary *sentire* level: even here there is more diversity among organisms within a species than was realized in the pre-evolutionary perspective of Aristotle and the Latins—so much so that it may even be said that, as Kalevi Kull remarked to me on the point, there is in some respects more uniformity at the level of words as governed by customs within culture than there is at the level of passions themselves as induced by the action of the sensible surroundings upon the sense organs of animals, working their way up through the *species impressae* first of internal sense and then of understanding.

Here we can understand Aristotle's realization that some "other science" than logic is required to understand the relation of words as words to the passions of the soul, and also his precipitousness in identifying that "other science" with psychology (*de anima*), for no realization existed as yet of culture as¹⁴⁰ "that minuscule segment of nature some anthropologists grandly compartmentalize as culture". Saussure in fact makes virtually the same mistake as Aristotle in this regard, even though he did indeed realize that the required "other science", for which he proposes the name "semiology", is one that did not exist in Aristotle's day. For Saussure saw, as Broden puts it (2009: 16), that "whereas psychology may study pure ideas and physics raw sounds", what is required to understand the words of language as *signs*—and hence the *signs* of language—is rather a science which "investigates a phenomenon in which the two [psychology and physics] interact and condition each other at every turn".¹⁴¹

Linguistics does this, indeed; and shows in so doing precisely how linguistic communication constitutes a secondary modeling system¹⁴² exapted from the primary adaptive modeling system of the human animal *Innenwelt* in its biologically underdetermined aspect, as we saw in Section 3.6.5. above. But the required science must do something more even than this: it must include within its purview the interaction within experience as a whole (inseparable from the *zoösemiotic* components of sensation and sense-perception) between ideas and things in the very process—semiosis

140. Sebeok 1984: 2; cf. Deely 2010.

141. Just this interaction is what is wanting in Poinset's analysis of "ultimate and nonultimate" linguistics concepts, mentioned in note 132 above. It is precisely to mark and to foreground the *interdependence* of words and ideas, Broden points out (citing Saussure i.1907–1911: 103, 111–117), that "Saussure introduces [his] pair of neologisms: the sign comprises the *signifier* (cf. sound) and the *signified* (cf. concept), such that the Janus linguistic entity resembles the sides of a single sheet of paper". Adding the interaction of bodies as *also* subsumed into language through the passions of the soul is required, then, to complete the triadic structure of the linguistic sign in the web of experience, larger than language, which ties the human animal into the biosphere shared with every life form, and not only into the semiosphere of culture within the biosphere. "Language is" indeed as Saussure insists (i.1907–1911: 122) "a form" constituted by relations "and not a substance": but no dyad or combination of dyads make up a sign properly speaking, but only a triadic relation wherein one thing stands for another to or for some third. Dyads as such always reveal Secondness, essential in the shaping of Thirdness from Firstness, indeed, but never itself the necessary *vis a prospecto* distinctive of semiosis.

142. Saussure's post-1907 "strategic move is to say that while cumulatively and over time, 'analogy occupies a preponderant place in the theory of evolution' of languages, analogical creations as such illustrate not so much linguistic change but rather the synchronic functioning of language conceived as a virtual system and as *en-ergeia*, as a complex of 'generative forms'" (Broden 2009: 13). In this synchronic functioning, which is not a segment of any diachrony, but (Lotman 1990: 6) a homeostatic "bearer of the relationships which make up the essence of language" ("synchrony is homeostatic while diachrony is made up of a series of external and accidental infringements of it, in reacting against which synchrony re-establishes its integrity"), Saussure (i.1907–1911: 169) points out that "language never stops interpreting and decomposing the units given to it", so that it becomes over time (ibid. 172) "a garment covered with patches cut from its own cloth".

to the core—of objectification as it begins even before the formation of those ideological other-representations which come to expression in language and open the path to yet a third modeling system, namely, the world of culture. For the realm of culture, as distinct from the social organization and interaction typical of all higher animals, is accessible directly only through language in the species-specific sense of anthroposemiosis as transformative of the *Umwelt* from a closed objective world biologically defined to an *Umwelt* open cosmologically.

The huge gap between nature and culture oppositionally conceived is precisely the divide that Augustine will identify, subsume, and transcend semiotically with his seldom fully considered distinction¹⁴³ between *signa naturalia* and *signa data*. The later Latins will put the point more generally (but no longer including the signs of the plant world, as did Augustine's first general division of the *signa data*) by remarking that the action of signs transcends the divide between what stems from the order of *ens reale* first of all and what stems, rather, first of all and primarily, from the order of *ens rationis*, mind-dependent being, the order of culture and convention as shaping the world of nature to its own ends and purposes. Passions are related to words as their cause, insofar as the words are *semeia*; but, insofar as the words have an overlying relation *back* to passions as *symbola* thereof, the passions are related to the words as providing *directly* their communicative content (itself received *directly* from the surrounding "things" which thus "inform" the words *indirectly* even though the *direct* "application" of the words is to the things and not to the *developed passions* which—symbolically—provide the words with their "content" directly and their iconicity indirectly, as Jakobson emphasized in underscoring the σύμβολα/σημεία entanglement on the words/passions side #3 of the triangle).

Here, then, is where account must be taken of what Lotman¹⁴⁴ described as "the 'debate' between those two linguists of genius, Saussure and Jakobson", over the sufficiency of the claim that "arbitrariness" is the identificative foundation of the linguistic sign. As we see now clearly, thanks an examination of Aristotle's triangle within the perspective of the major tradition of semiotics after Sebeok, a symbolic relation—the relation alone which *of its very nature* contains an element of arbitrariness—is involved *both* in the relation of words to passions *and* in the relation of words to things. But, as we have taken care to see, *only* in the relation of words to things is the symbolic relation the *only* relation: *only* there, which is emphatically *not* where Saussure placed his *signifiant/signifié* relation, does arbitrariness "stand alone", as it were, in characterizing the linguistic sign with a symbolic dimension.

143. On this point, see Deely 2009b: Section 6., 35–56.

144. Lotman 1990: 17.

In the connection between words and thoughts, by contrast, which is where Saussure (counter-intuitively to the common use of language, as we noted in 3.8.2. above) placed his *signifiant/signifié* relation, there is also involved a relation of symptomatcity. From this involvement *inevitably natural language*¹⁴⁵ “acquires secondary features of iconism” along with and *de facto inseparable from whatever arbitrariness the symbolic relation in this case sustains*, proving “Potebnya’s [1862] idea that the entire sphere of language belongs to art”. That is to say, natural language conveys, along with whatever “arbitrariness” attaches to the words as symbols, *also* secondary iconic features without which the element of arbitrariness ceases to belong to a *natural* language (as evidenced, for example, in the delusional thesis of “Analytic Philosophy” after Kripke that proper names in natural language are “rigid designators”—surely the prime illustration in late modern philosophy of what Sebeok frequently described as “looking in the destination for what should have been sought in the source” or, on one alternate occasion, as a “deluded misconstrual of the facts of the matter”).

And remember, here, in the earliest decades of “philosophy”, we are in the world of cenoscopic science only, and in its initial phase of development as “ancient philosophy among the Greeks”: there is no general notion of sign as yet considered as common to nature and culture, such as we will find for the first time mainly in and after the work of Augustine.¹⁴⁶ Thus, the words of the triangle manifest a twofold relation that is not at all symmetrical: looked at from the side of the passions, the words are symptoms of a psychological state; but looked at from the side of the words, the passions are symbolically conveyed—not as to their existence but rather as to their content. The former standpoint reveals only, or at least primarily, a phenomenon of nature, the latter standpoint only, or at least primarily, a phenomenon of convention and culture.

3.9 “Alterius Est Enim Negotii”: Exactly What Is the Presupposed “Investigation Distinct” from Logic and Linguistic Interpretation Required for Correctly Understanding the Triangle?

Now let us consider this whole matter of the triangle no longer in the traditional perspective of Aristotle himself; nor for what it shows us of the insufficiency for semiotics of the Saussurean model of sign; nor even in the perspective of the Aristotelian commentary tradition known as Scholasticism, which grew up with the institution of the universities

145. in Lotman’s 1990: 17–18 summary of Jakobson’s argument against Saussure, italics added.

146. See Deely 2009b for the most detailed treatment so far, but a treatment inspired above all by the work of Manetti 1987, which I first learned of through the work of Eco, Lambertini, Marmo, and Tabarroni 1984 and 1986, which Eco made me aware of in his opening lectures for our team-taught course on the “Historiographical Foundations of Semiotics” for the International Summer Institute for Semiotics and Structural Studies held in 1983 at Indiana University, Bloomington.

as its basic skeletal structure until well into the 18th century. At that historical epoch—the 18th century—it became possible no longer to conceive of university education in exclusively cenoscopic terms, and place had to be yielded and made for the institutionalization of ideoscopy that we know as modern science, in contrast to cenoscopy (and in that sense also to semiotics, inasmuch as the doctrine of signs, as Peirce put it,¹⁴⁷ is a cenoscopic science underlying all other science—the point the Enlightenment missed).

Let us consider our seminal triangle, inherited from Aristotle, now simply in the light of Augustine's discovery that there is a general notion of sign that is common to the phenomena of nature and of culture, as also in the light of Poinso's realization that relation is singularly indifferent to the division of nature from culture and mind-independent from mind-dependent being (in that one and the same relation can belong at different times to either order, depending upon nothing in the being of relation as suprasubjective but only upon the circumstances under which that suprasubjective being is realized here and now).

With the establishment between the Conimbricenses (1606/07) and Poinso's own work (1632) that the being proper to signs consists precisely in a relation that is not only suprasubjective (as are all relations) but also triadic (as are all *sign* relations), the distinction that was drawn by Aristotle and the ancients between σημείον (as belonging exclusively to nature) and σύμβολον (as exclusively cultural)¹⁴⁸ breaks down. Indeed, the whole distinction between signs as external material objects and concepts (both generically animal and specifically human concepts, all *species expressae*, as Poinso would point out¹⁴⁹) as internal psychological states—i.e., in modern terms, the basic distinction between “inner” and “outer”—breaks down with the realization that any given particular, physical or psychological, functions as a “sign” (or rather, provides the vehicle for a signification) when and only when it occupies the foreground position of representing another than itself to or for some third within and under a triadic relation unifying all three terms in one signification.

In that case, the foundational investigation for the elements and terms of the triangle with which Aristotle opens his discussion of logical interpretation is no longer or primarily the *Treatise on the Soul*, where the notions of *sentire*, *phantasiari*, and *intelligere* are discussed in their common terms and distinctive developments, but rather the *doctrina signorum*—the “doctrine of signs” spoken of in common by Poinso, Locke, Peirce, and Sebeok¹⁵⁰—as able to constitute a body of knowledge in its own right studying

147. Peirce 1908b: CP 8.343, in a draft of a letter to Victoria Lady Welby.

148. Useful to read in this connection is Eco 1986.

149. Poinso 1632: *Treatise on Signs*, Book II, Question 2, 240–253.

150. See esp. the terminological entry “Doctrine” in Sebeok, Bouissac, Eco, Pelc, Posner, Rey, and Shukman, Editors 1986: 214, for details of this oldest general expression to name the development called semiotic today. See also Deely 1976, 1977, 1982, 1993c, 2006d, and 2006e.

what all other bodies of knowledge and fields of investigation take for granted, namely, the action of signs.

Precisely here, as I intimated above, does Poinsoot, in discussing *perihermenias*, go beyond Aristotle. The “distinct and prior investigation” to which the full understanding of the triangle belongs turns out to be not the ancient *De Anima* (neither psychology in the narrower modern sense nor general biology, as we might say today, for the expression “de anima” applied to the whole living world, plants and brute animals no less than human animals), but rather the doctrine of signs. Not at all coincidentally, this investigation into signs is exactly how and where Poinsoot introduces his *Tractatus de Signis*, that earliest systematic treatment wherein the being of signs as triadic relations is first established and demonstrated:¹⁵¹ “Because all the instruments of logical interpretation are constituted from signs, therefore, lest the foundations of the expositions of logic and propositions go unexamined, we are obliged to take on the project of explaining the nature and divisions of signs as a special treatment of its own.”¹⁵²

3.10 The Need for Intrinsic (Not Ad Hoc) Interdisciplinarity at the Curricular Core of University Studies

Perhaps the principal task of the postmodern university is to determine how its institutional structure need best be modified to accommodate the maturation of a semiotic consciousness within intellectual culture. This task today is comparable in depth and importance to the task the universities of the 18th century faced yesterday, in having to determine how to accommodate that maturation of ideoscopic consciousness we know today as modern science,¹⁵³ only now the problem is how to respond institutionally to

151. See Poinsoot 1632: “Super Libros Perihermenias. Remarks on Aristotle’s *Books on Interpretation*, explaining the relation of the *Treatise on Signs* to the Aristotelian tradition, its philosophical justification, and its presuppositions within the *Ars Logica*”, 38/1–39/18, together with the “Fifth Semiotic Marker” immediately following (p. 40) in the 1985 first independent edition of Poinsoot’s 1632 *Tractatus de Signis*.

152. Paraphrasing Poinsoot 1632: 38/11–19, and 39/5–7, “Super Libros Perihermenias”: “Sed tamen, quia haec omnia tractantur in his libris per modum interpretationis et significationis, commune siquidem Logicae instrumentum est signum, quo omnia eius instrumenta constant, idcirco visum est in praesenti pro doctrina horum librorum ea tradere, quae ad explicandam naturam et divisiones signorum in Summulis insinuata, huc vero reservata sunt. Nec enim tironum captui quaestiones istae de signis proportionatae sunt. Nunc autem in hoc loco genuine introducuntur.... Ut autem clarius et uberius tractaretur, visum est seorsum de hoc edere tractatum.”

153. On this transition from cenoscopy to ideoscopy in the early modern period, see Deely 2008: esp. Chaps. 1 and 2. The failure of philosophy within the modern universities successfully to adapt to the dominance of ideoscopy in modern intellectual life has best been attested to in the recent *magnum opus* of Ashley 2006, reviewed in Deely 2009c.

Broden's accurate characterization¹⁵⁴ of "the last two centuries' trend toward increasing specialization and the fragmentation of knowledge".

Future thinkers, looking back a century hence on our situation today, are most likely to see the establishment of semiotics as a revolution, comparable in importance to the rebellion against scholasticism in the 17th century, except that the revolution in this case will have more the character of a *completion and maturation of scientific understanding* than an opposition to and rejection of the past. For just as the scientific revolution made specialization necessary, so the semiotic revolution will provide the antidote to specialization, not by rejecting ideoscopic specialization (as the authorities of the Scholastic Age in effect did) but through the realization of what all knowledge and experience have in common *including all specializations*, namely, a dependency upon semiosis as the action of signs, and hence the dependency of ideoscopy upon cenoscopy as something that needs to be molded into the institutional structure of the academy at the university level. As Daniel Taylor, one of my Spring 2008 university students, presciently put it: "Semiotics investigates what all the other disciplines seem to take for granted."

In this perspective, too, we can see that no small part of the reason why Aristotle's triangle proved as seminal as it has over philosophy's long history would be the fact that it augured the essential elements that had to be addressed in order to achieve an understanding of the being proper to signs as relational and irreducibly triadic. It is a *triangle* concerning "the meaning of meaning", all right, as Ogden and Richards brought to the fore (and in particular to Sebeok's attention in his undergraduate time in England); but the words/things/thoughts triangle is not correctly understandable as a "semantic triangle" *unless it is first and already understood* in semiotic terms as applicable to "meaning" throughout the order of animal Umwelten, even as it is for that very reason applicable within the Umwelt-as-Lebenswelt species-specific to semiotic animals.

In that sense, Aristotle's triangle, presemiotic in the perspective of his own time and writings (where the rational basis for the unity of speculative and practical thought had not yet successfully been determined),¹⁵⁵ was yet "virtually semiotic" in anticipation objectively of the work, first, of Augustine and Poincaré among the Latins, and then no less of Peirce in inaugurating semiotics as the postmodern turn of philosophy within intellectual culture as a whole.¹⁵⁶ And yet it turns out that a triangle cannot be the best way to symbolize the relation of *sign itself* as a triadic structure, for the very reason that Floyd Merrell has repeatedly pointed out: any triangle of its very nature lends itself to

154. Broden 2009: 31.

155. See Deely 2001: 261n28, and expansion of the point in Deely 2003: esp. the Section "*Semiotica Ultramque Comprehendit*" in Chap. 6, 100–112.

156. Deely 2014?; also 2009b, 2009c, 2001: Chaps. 15, 17, and 18; also Capozzi 1997.

being regarded as a set of three binary relations, and hence to reinforcing linear, bivalent thinking (e.g., sign/signified, as if a dyad¹⁵⁷), of the very sort that semiotics, in order to be achieved in its proper possibilities, had to move beyond.

So that ancient triangle of Aristotle, while it may not and, after all (as it turns out), *cannot* unqualifiedly symbolize the triadic sign, has nonetheless proved historically useful toward the development of semiotics. Let us conclude with a few words along that line of consideration—the usefulness of the triangle, despite its inappropriateness as a direct symbol of triadicity.

3.11 Triad in Contrast to Triangle

Perhaps the most remarkable and interesting thing about Poinso's demonstration that the science presupposed to understanding logic and the inter-relations between words, thoughts, and things is not psychology (“*De anima*”, whether ideoscopically or cenoscopically conceived), but rather the irreducibly cenoscopic science of semiotics as the doctrine of signs, is this development: that Aristotle's triangle, presented in his *De Interpretatione* as emblematic of psychology as the “science presupposed” to logic, quite disappears. For the sign, Poinso has shown, considered in its proper being as sign, is neither an object nor a thing, but a relation irreducibly triadic, inasmuch as it is by *one single relation*, not two or any combination of twos, that the sign through its vehicle attains both *directly* its signified and *indirectly* its interpretant. All three—sign-vehicle, object-signified, interpretant—are thereby together unified under or through the one single triadic relation “constituting the mode of being of a sign”, as Peirce put it,¹⁵⁸ and this triadic relation “is the proper and formal rationale of the sign”, as Poinso put it.¹⁵⁹ (Or, as Ketner, not glossing over the interpreter/interpretant distinction, summarized:¹⁶⁰ “A sign is the entire triadic relation whereby Something is represented by Something to Something.”)

Thus, when Poinso comes directly to treat of the very text, *De interpretatione* 16a3–8, which Aristotle opens with the presentation of his “words, things, passions” triangle,¹⁶¹ Poinso does not so much as mention a *triangle* image but passes directly to

157. Within “ordinary language”; that is exactly how “sign” tends to be conceived: we look up a term in a dictionary (sign as “word”) and find there its meaning (“what the word signifies”). Completely hidden in the background to success in such a case is precisely the *interpretant*, which in this case is the habit-structure of one who knows the language in which the term is expressed and the dictionary is written, completing the triad essential to every actual achievement of “signification”.

158. Peirce 1904: CP 8.332.

159. 1632: Tractatus de Signis Book I, Question 3, 154/28–29.

160. Ketner 1995: 32.

161. Poinso 1632: Appendix A “Whether vocal expressions primarily signify concepts or things”, 344/1–351/40. The fuller treatment, i.e., the general point that signification consists in a *triadic* relation in all

the *triadic* point¹⁶² that “*voce unica significatione significant res et conceptus*”, and “*res principalis*”.¹⁶³ So it turns out that, when analyzed in semiotic terms, the sign is a triad but not a triangle properly speaking, even though the sign is commonly presented as such¹⁶⁴ simply because it involves three terms.

In fact, the question of how properly to represent the triadic sign relation, with or without recourse to triangles, is a puzzling one. I have so far been able to find only two, and both have their drawbacks.

The first representation is as what might be (and commonly has been, including by me) *misconstrued* as a “pre-triangle”—a figure that *would be* a triangle did it but have one more side—except for the (slight detail) that the “missing side” is *essentially* lacking (Figure 11). The problem, thus, is to represent *not* a triangle, but rather a *triad* which, like a triangle involves three “points” or “terms” but, unlike a triangle, does not have the three bilaterally connected, but connected rather by “one single relation which attains the second term directly and the third term indirectly” via the second.



Figure 10 A Triad as Distinct from a Triangle

The second representation is as what might be considered, for want of a better name, a tripod, but a tripod—“Merrell’s Tripod”, let me call it¹⁶⁵—lacking a central connection

cases, not just the case of linguistic communication as species-specifically human, remains of course Peirce 1932: Book I, Question 3, “Whether the relation of sign to signified is the same as the relation of sign to cognitive power”.

162. *Ibid.*: 345/9–10.

163. “*nisi forte ipsa res significata sit conceptus vel eius intentio*”—*Ibid.*: 349/39–40.

164. E.g., Blunden 2005/6: 4 of 14 (in PDF download from <<http://home.mira.net/~andy/works/semiosis.htm>>), where he rightly states that “The basic schema of semiosis is the triadic relation”, but then immediately diagrams it as a series of dyads in triangular formation, exactly as if to instantiate Merrell’s repeated objection to the triangle representation of what is not triangular but triadic. Both involve three terms, yes; but both cannot be constituted from some combination of dyads; only the triangular (mis) representation allows for that. My own frequent use of triangular representations throughout *Basics of Semiotics* (Deely 1990a and after) is material, rather than formal, in that the irreducible triadicity of the sign is the formal point of the text as a whole repeated throughout its parts. The triangle as a representation remains materially convenient, if formally inadequate on its own terms.

165. As Floyd Merrell explained in the email accompanying the attachment of Figure 1 as reproduced here (essentially the same as the Figure 2 in his Sebeok Fellow Address 2006: 4): “I think tripod is necessary, since its three-dimensional and the dimensions of time we live in are three-dimensional, which is no mere

as necessarily positive in the juncture of its “legs” (Figure 11). Thus:

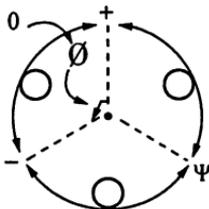


Figure 11 Merrell's Tripod

It is as if we have to choose between a triangle with a missing side, and a tripod with a missing central connective. I will argue in a moment that this “missingness” is the strength of each of the diagrams. But first let me cite, in part at least (for one would have to gather many and lengthy passages from Merrell’s writings to get a full grasp on his understanding of this “tripod”), an explanation for Merrell’s basic preference for some version of Figure 11:¹⁶⁶

The problem is [with any] Figure [that]...still appears to be of bivalent orientation [such as we find in Saussure’s *signifiant/signifié* model]. On the surface there is no more than a one-dimensional line severing a two-dimensional plane. In contrast, Figure 2, if construed as a tripod, offers a three-dimensional topological field.

[I]t seems to me that with [this second figure], Firstness is poised to enter into signhood as something that is interdependently interrelated *with* something else *for* someone or something *in* some respect or capacity. So the diagram is the bare beginning of a sign. It is a pre-sign, so to speak, the possibility of an actual concrete sign. I would suggest that the Firstness of this pre-sign, when emerging into mindfulness, can take on its own Secondness, and then mediating Thirdness emerges. In other words... Signhood. And the process continues, without end.

coincidence, given the categories, 3 in number. The ‘psi’, as well as +, -, square root of the central point, the empty set, and zero, would require pages to account for....As for the ‘(+)missing central connective’, that’s the reason for and the function of the square root at the central point of the tripod, about which the plus and the minus and the ‘psi’ symbols ‘oscillate’ (to create what you call a ‘spiral’, and it is fed by the empty set and zero, or what Peirce called ‘nothingness’, or Buddhist ‘emptiness.’”

166. Merrell 2006: 4, and 2004: 268–269. The situation of the sign as tripodically diagramed, as Merrell says, is “more complicated, infinitely more complicated”, than the bare diagram suggests; so let me share with the reader “a few sources of the gyrating, spiraling, swirling and swiveling ‘tripod’”: Merrell 2000, 2007, 2007a, 2008, 2008a, 2008b.

On this accounting, Floyd's tripod amounts to a version of what I have diagramed rather as the "semiotic spiral"¹⁶⁷ (of abductions, deductions, and retroductions¹⁶⁸ through which experience is constituted and by which it develops, indeed, from conception to death), but one which properly centers the process on "signhood" as a constantly emerging form of being ever new.

But emerging whence, emerging from where? And this question leads me to what I regard as the strength of both diagrams, namely, the "missing" elements—be it the "triangle" with only two sides, or the "tripod" with no connecting center: the explicit incorporation of *nonbeing* into the representation of sign.

A little noted, yet decisively important, feature of the action of signs is that signs provide the only example of causality which functions equally in absence and in presence, the only instance of causality between terms which need not all exist at the time of, and in order to complete, the sign action. Poinso, one of the few so far to address directly the causality proper to the action of signs,¹⁶⁹ explains the element of nonbeing in semiosis as arising from the very nature of the triadic being proper to signs as relations: relations cannot be directly affected or changed except indirectly, by changing the objects or things related, whence the change in relations between them follows. So signs, insofar as consisting in relations, are powerless directly to affect out-comes except through their vehicles and significates acting under the relation of signification which makes them to be what they are, not in themselves, but in *the position they occupy* under the triadic relation of what Merrell felicitously terms "signhood".

This indirectness and dependency upon changes or actions in the order of Secondness also explains how and why signs as instantiating Thirdness typically exhibit an *influence of the future* within the present, altering the relevance of past events and presaging—but all only indirectly, and without strict necessity—"what is to come" out of what has been and is.¹⁷⁰ This singularity of semiosic causality, then, springs directly from the singularity of relation itself as suprasubjective, which makes semiosis possible in the first place. Actual semiosis as Thirdness may occur only "in the land of the living", but a semiosis virtual and exercised intermittently in raising the physical universe itself from a condition of lifelessness toward the possibility and finally the actuality of life, like

167. Deely 1985b: 321, 2001: 28, 2003: 164, 2004d: 10, 2009b: 226.

168. On the terminology here as I employ it, especially regarding this term "retroduction" used here in what amounts to a coinage, see Deely 2009b: 209 text and note 9. In brief summary: abduction=getting an idea from experience of things; deduction=seeing or drawing out the consequences of an idea; retroduction=returning to things to verify or disprove the consequences of a developed idea.

169. Poinso 1632: *Tractatus de Signis* Book I, Question 5, "Whether to signify, formally considered, is to cause something in the order of productive causality", 193/1–203/32, esp. 194/30–197/17. See also Deely 2009d: "The full vista of the action of signs", 233–275, Section 4.3, 261–269.

170. Cf. Williams 2009.

the flaring of a match which does not hold its would-be flame, results from this same element of “nonbeing” embedded at the heart of semiosis as a distinctive causal process at work within, entangled with, the “efficient” productive forces of brute Secondness.

In the case of evolution, for example—not only biological evolution, but that prior and encompassing cosmic evolution which biological evolution presupposes in order for life to have become possible in the first place—Secondness provides and explains that element of chance and selection at work as a *vis a tergo* in the whole of evolution. But only Thirdness, whether intermittent and virtual (“degenerate”) in inorganic nature, or actual and quasi-constant in the vegetative world, or actual and constant in the world of animals (“genuine” and complete, as it were), provides that *vis a prospecto* which we experience as “meaning” in whatever form, fictional or real, delusional or provisional.

Thus, no matter how you look at it, the discovery (or realization) of semiosis at the heart of meaning and the thematization of semiosis as semiotics constitutes a revolution at the heart of intellectual culture, and presents a challenge for rethinking the institutionalization of academic life in our universities. This challenge is the equal and counterpoint to the challenge that ideoscopic science presented to the exclusively cenoscopic thinkers of the medieval universities, as I have pointed out above. Aristotle's triangle may have been inherently pre-semiotic, but viewed semiotically it at least shows us the elements that have to be synthesized in order to understand what signs are and how they act. For the three poles of the triangle at least, in contrast to the three “sides”, have each an involvement with Thirdness. While not themselves a triad as such (i.e., as the separate poles of a triangle), yet each of these poles itself covertly contains the three triads from which anthroposemiosis constantly emerges: words, which as material signs presuppose triadic relations in the context of society and culture; thoughts, which as psychological states cannot exist without giving rise to triadic relations within Firstness; and things, which cannot be as known except as signifieds derived from objects which themselves as such (i.e., as apprehended) belong directly to Thirdness, beyond (and even within) sensation (*sentire* prescissively distinguished from *phantasiari* and *intelligere*) inseparable from brute Secondness.¹⁷¹

3.12 Aristotle's Triangle of Triads

Aristotle's is not a semiotic triangle, but pre-semiotic. In fact, it turns out that there is, strictly speaking, no such thing as a semiotic *triangle*, if we understand the difference between a *triad*—which has three terms under one single relation, indeed, but never

171. On this last point, that “object signified” says redundantly what “signified” or “significate” says sufficiently, and that “object” is a disguised and, historically at least, normally misleading way to speak of signifieds, read *Purely Objective Reality* (Deely 2009c).

as such three “sides” (three bivalent relations each reducible to dyadicity, whether one-sided¹⁷² or reciprocal¹⁷³)—and a *triangle* as an irreducibly three-sided figure. Yet Aristotle’s triangle, that ancient triangle proposed in the early light of philosophy’s ancient dawn, in what it has accomplished in provoking thinking in the direction of an eventual semiotic consciousness over the long centuries of the semiotic animal’s slow-by-slow development of an ever fuller “self awareness,” may well be taken now to symbolize the work that lies ahead in the fields of academia for the semiotic community, inevitably pushing philosophy as the basic cenoscopic science toward assuming its proper place in the “core curriculum” as integrative of the intellectual culture of the postmodern university.

Semiotics, an intellectual phenomenon mainly of the 20th century as regards its actual formation as a community of inquirers, we are now coming to realize is no less than the dawning of a new era of intellectual culture, a global era marked (thanks to semiotics) by a noetic renewal beyond the *ne plus ultra* of the modern epistemology systematized by Kant. Semiotics launches postmodernity as a new epoch of philosophy itself understood finally as a cenoscopic, not an ideoscopic, science, one itself—like all the sciences—born out of the action of signs, the doctrine, or thematized investigation and understanding of which, we call today “semiotics”.

4. Parting Summation

That is how I project the diachronic development within the synchronic perspective in which the 20th century became the *locus* for the establishment of the foundations for the 21st century’s continued development and expansion of the community of inquirers focused on the action of signs. I project this development out to the year 2075 or so; but of course, those who will be able synchronically to judge of my projection, while it will include some now living but rather young, it will not include me or my contemporaries cited in the pages above, any more than Sebeok or Saussure has been able to comment on my “view as of 2010”. For whatever the far boundary of my own synchrony within the larger diachrony of semiotics, it cannot be *that* distant. “Time will tell.”

172. As in the case of words to passions looked at one way as *symbola*, yet looked at another way as *semeia* symptoms; or of words to things as *symbola*, respecting which reciprocally the things themselves directly “say nothing”.

173. As in the case of the things themselves, which “say nothing” to the words directly but speak loudly, indexically and iconically, in reciprocity with the passions.

APPENDIX TO CHAPTER 14

SEBEOK'S SYNTHESIS: THE TARTU-BLOOMINGTON-COPENHAGEN SCHOOL

Juri Lotman (28 February 1922–1993 October 28), a suspect figure for the Russian authorities of the Soviet era, is the single most prominent figure of so-called “Soviet semiotics”, and the principal theorist of the Saussure-oriented “Tartu-Moscow School” of semiotics, with its idea of linguistic communication as the “primary modeling system” through which alone access is provided to the world of culture as the “secondary modeling system”.

In the purview of this school, biology has a background rather than a central role (see Ivanov 2008—still, that is a considerable improvement over Saussure’s own views, and perhaps explains Sebeok’s determined interest in meeting Lotman personally); so it must be said that the “Tartu-Moscow School” in its original formation and development belongs determinately to what Sebeok identified as the “minor tradition” of semiological analysis within semiotics as the complete doctrine of signs or “major tradition” (Deely 1986). (Kalevi Kull, in an email dated 12 June 2009, has pointed out to me an important detail concerning Lotman’s position within semiology: “a change can be dated to 1982, when Lotman read Vernadsky’s work on biosphere and as a result coined his term ‘semiosphere’. In the same year he attended a conference on theoretical biology, which also gave him ideas to turn towards a more organicist approach. This in its way has enhanced the following biosemiotic developments in Tartu.”) By “major tradition”, of course, Sebeok meant an understanding of signs in terms of their proper being as triadic and operative not only throughout the cultural world but also throughout the natural world as prior to, independent of, and influenced by culture.

However, there was an earlier Tartu scholar, a “cryptosemiotician” (that is, a late modern thinker involved with but not thematically aware of the doctrine of signs, still

a prisoner theoretically of the solipsist epistemology of modern philosophy) named Jakob von Uexküll (8 September 1864–1944 July 25), who, with his theoretical and experimental explication of the Umwelt/Innenwelt distinction, Sebeok realized, had correctly identified what is truly the *primary* modeling system for the animal kingdom as including human beings. This primary modeling system, the animal Innenwelt, required only a distinctive adaptation to provide the root from which and basis upon which linguistic communication as an *exaptation* could be established as the species-specifically human avenue to the development of culture as yet a third-level modeling system transforming the animal Umwelt confined to awareness of objects in relation to the animal into a Lebenswelt open to an exploration of objects not only in relation to ourselves as animals but also as being “things in themselves” sometimes mind-dependent, sometimes mind-independent, but typically (and certainly initially) a combination of both.

With this remarkable synthesis, Sebeok achieved nothing less than a theoretical revolution within the development of the doctrine of signs, one which has proved to be the main foundation for the development of semiotics in the 21st century. Sebeok’s synthesis brings the minor tradition “Tartu-Moscow School” into the mainstream of semiotic development, but the old name fails completely to manifest the revolution.

In the first place, Jakob von Uexküll has no association at all with the original name, despite the fact that his Umwelttheorie was developed exactly while he was associated, as would later be Lotman, with the Tartu University. In the second place, the old name embodies a commitment to the Saussurean dyadic model of sign in exactly the sense that the Poinot-Locke-Peirce tradition (the “major tradition,” as Sebeok pointed out, because it is the only tradition squarely based on the model of sign recognizing the irreducibly triadic character of semiosis as following upon the relational being of signs as such), had shown to be incompatible with the full extent of semiosis.

Beginning with Sebeok’s own introduction of the notion and term “zoösemiotics” in 1963, followed by Krampen’s proposal of “phytosemiotics” in 1981, semiotics by the turn of the century had definitively established the inadequacy of an exclusively linguistic or cultural model, and laid the foundations for the fuller development of today’s biosemiotics, centrally spearheaded by work of Jesper Hoffmeyer (1993, 2000, 2008, and the “Epilogue” to this present volume), among others.

Thus, when we assimilate the work of von Uexküll to the name “Tartu”, and view the work of Lotman no longer in the exclusively semiological terms in which it was originally cast but as assimilated now rather to the mainstream Poinot-Locke-Peirce development as distinctively postmodern in the synthesis achieved by Sebeok, and particularly when we take into account the biosemiotic development with its center in the work of Danish semioticians, we should speak now of the “Tartu-Bloomington-Copenhagen School” as the major development within the major tradition whereby the

action of signs becomes conscious of itself and of its role in the universe as a whole through the metaseiosis species-specific to human animals as *semiotic animals*. These are the only animals which not only use signs but also recognize that the being of signs involves but does not reduce to anything sensible, consisting rather in the invisible spiral of interweaving triadic relations which turn things into objects and objects into signs in creating that path which “leads everywhere in nature” (Emmeche 1994:126)—including where human beings have never set foot.

REFERENCES, HISTORICALLY LAYERED

“No one writes after they die.” The reference section of this book has been constructed using the principle of “historical layering of sources” first outlined in the *Style Manual* of the Semiotic Society of America, a principle which merits universal bibliographical adoption, because it makes explicit the historical levels on which any given discourse draws, while at the same time making explicit the relation of any text or edition used to the original source work actually produced within the lifetime of each author cited. For the details of this style sheet, I refer readers to its full published form, “Semiotic Society of America Style Sheet”, *The American Journal of Semiotics* 4.3–4 (1986), 193–215.

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

This list is restricted to those works actually cited in the course of the chapters. Without exception, the works included are the books and articles which I had in hand as the book was written and its bibliography compiled. Eschewing bibliography for bibliography’s sake, the list is not a list of secondary sources relied on thirdhand, nor an inflated list of works known, but an effort to provide the reader with an inventory of the actual bookshelf, as it were, utilized in order to write this particular book. The intention is to provide as accurate a basis as possible for evaluating the sources the author employed, without prejudging other works which the reader might find useful or necessary in further research into topics touched upon.

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

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

Within references, the following abbreviations are used:

- cf. = confer or consult;
- qv = *quod vide* or “which see”, a cross-reference.

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The designation NEM abbreviates *The New Elements of Mathematics*, ed. Carolyn Eisele (The Hague: Mouton, 1976), 4 volumes bound as 5.
The designation W followed by volume and page numbers with a period in between abbreviates the ongoing *Writings of Charles S. Peirce: A Chronological Edition*, initiated as the Peirce Edition Project at Indiana University-Purdue University/Indianapolis by Edward C. Moore under the general editorship of Max H. Fisch, now under the direction of Christian Kloesel (Bloomington: Indiana University Press, 3 vols.—1982, 1984, 1986—of a projected 20 published so far).

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- 1906c. MS 283, partially published in CP 1.573–574, 5.448n, and 5.449–454; more completely in EP 2.371–397 and 2.544n22.
- c.1906. "Pragmatism (Editor)", in CP 5.11–13, except 5.13n1, and 5.464–496, with 5.464 continuing 5.13, (both dated c.1906) are from it. CP 5.11–13 were previously printed in *The Hound and Horn* 2 (April–June 1929), pp. 282–285, under the title "The Founding of Pragmatism".
- c.1906a. "Phaneroscopy φαν" of 1905 has also portions dated c.1906 published in CP 1.306–311, 4.6–11, 4.53n1, 4.553n1 (p. 441): following Burks 1958: 298 re 1905(h).
- c.1907. Ms. 318 in Robin 1967: 36–7, numbered ISP 00002–00350: one of the most important of Peirce's literary remains, this many-layered ms. has never been published in full. Where I have drawn on unpublished sections I have used a photocopy bearing the sheet numbers stamped by the Texas Tech Institute for Studies in Pragmatism (hence: ISP nos.) on the electroprint copy Ketner with associates had made from microfilm, and then checked against the original in the Harvard archives. Further subdivisions and rearrangements have been made since. Originally an untitled letter-article to the editor of *The Nation*, this ms. has several partial draft endings signed "Charles Santiago Peirce", but no single, consecutive, complete draft as a whole. Part appears in CP 5.464–496 under a title supplied by the editors of the volume, "A Survey of Pragmatism" (cf. Burks p. 299). A small segment appears under the title "From Pragmatism" in NEM III.1: 481–494. The most complete, but still partial, presentation of this document is in EP 2.398–433, under the title "Pragmatism".
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- 1908b. Draft of a letter dated December 24, 25, 28 "On the Classification of Signs", CP 8.342–379 except 368n23 are from it (Burks p. 321 par. 20.b).

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Manetti's comments (2002: 282) are worth adding here as a gloss on this important text: "The first critical edition of the papyrus containing this work of Philodemus (Pherc. 1065) was published by T. Gomperz, who significantly gave it the title *Philodem Über Induktions-schlüsse* (1865). The current standard edition is the text published by Phillip and Estelle Allen De Lacy, *On Methods of Inference* (1978). This is a revised version of an earlier edition (1941), now improved by the contributions of Marcello Gigante who, together with Francesca Longo Auricchio and Adele Tepedino Guerra, made an inspection of the papyrus with microscopic binoculars, allowing them to recover many previously unrecognized readings of the text." Manetti's review bears reading in full, particularly for making clear for semioicians why (p. 296) "it is safe to say that [Philodemus' text] has not yet revealed all its secrets to us, and remains an extremely rich source for further study and reflection".

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