

“Sebeotics at the Threshold. Review of Ponzio and Petrilli *Thomas Sebeok. An Introduction*”, in *Semiotica* 147 -1/4, 2003, 485-94

Sebeotics at the threshold

Reflections around a brief Sebeok introduction

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Susan Petrilli and Augusto Ponzio: “Thomas Sebeok and the Signs of Life”, Icon Books UK/ Totem Books USA, 77 pages, 2001

“From the 1960s onwards, ‘semiotics’, the study of the sign, began to transform the human sciences and, later, the natural sciences.”, Petrilli and Ponzio optimistically writes in the beginning of their small introduction to Tom Sebeok’s work. I am not so sure I share this optimistic picture of the development of semiotics, even if the very existence of the present volume does seem to corroborate it. It is indeed an amazing and encouraging fact that an introduction to Sebeok for beginners now can be found in a pamphlet series alongside the average campus household names from Barthes and Baudrillard to Wittgenstein.

As an introduction, the present volume functions well. As the chiasmic subtitle “The Life of Signs and the Signs of Life” indicates, the authors chose to highlight Sebeok’s role in the foundation of biosemiotics and the approachment between semiotics and biology in his work during the recent decades. Many other aspects of Sebeok’s rich career as a scholar and organizer might have been picked out (zoo-semiotics, general semiotics, history of semiotics, Fenno-Ugristic studies, etc.), but it is a wise and welcome choice to focus upon what makes Sebeok’s semiotics differ most distinctly from current *idees reçues* of the nature of signs and language. These Sebeok ideas are probably well-known to most readers of the present periodical:

1) semiotics is no privilege for the human mind nor culture, but is co-extensive with biology, and biological processes are seen as intrinsically semiotic.

2) as seen from a semiotic point of view, all species have their own Uexküllian “Umwelt”, a term Sebeok chose to translate into a “semiotic modelling system”, of their environment defined by the signs through which they interact with it.

3) the basic human Umwelt model is language which hence has its primary function as a cognitive (not a communicative) tool, while speech is a later communicative “exaptation” of this tool during evolution. Corollaries to this

idea are Sebeok favorites like the rejection of the possibilities of any animal (ape) language because of the lack of linguistic syntax in animal semiotics. 4) the evolution of human language and semiotics as well as biological semiotics now become central objects for science; in this respect Sebeok has been an important inspirator for the current wave of new interest in the origin of language.

5) sign processes being ubiquitous, semiotics should not be built upon the idea of sign function in a narrow utilitarian use of the word “function” but allow for vast domains of seemingly “useless”, playful sign use.

6) as a result, Sebeok’s adherence to a so-called “major” semiotic tradition can be mapped, running from Antiquity via Locke and Peirce to his more contemporary favourites like Jakobson, Morris, Hediger, Uexküll, Thom, Lotman, Prodi (- as against the “minor” tradition binding semiotics exclusively to the human mind, language, or culture, like in many brands of French (post-)structuralism). Thus “major” refers not only to size or importance, but to comprehension; the “minor” traditions tend to be included in the “major”, and Sebeok’s “ecumenicalism” in semiotics makes his point-of-view the more inclusive, also to the extent that he, most importantly, includes vast territories of research which do not themselves use “semiotics” as their title. This makes him share with phenomenology a strong urge to avoid “false dichotomies”.

These basic ideas come through in a fine, pedestrian manner in Petrilli and Ponzio’s entertainingly erratic writing style which is likely to be able to lure many a reader into a Sebeokianly wide appreciation of the possibilities of semiotics.

The ideas, however, claimed by Petrilli and Ponzio, that semiotics in itself implies a special ethics and thus provides a critical basis against “capitalist globalization” (36) or obliges us to a special tolerance towards what ominously is called “the other”, are - for me to see - far more dubious claims falling prey to some version of the naturalist fallacy in ethics. If valid at all, these more or less Political Correct ethical ideas have nothing especially semiotic about them, and they would rather be implied by the ethics of any scientist in general. Moreover, it is not evident that globalization has not got positive aspects as well - the disappearance of distinguished local cultures like Nazi culture, Apartheid culture, or Taleban culture under the pressures of globalization might not be so bad an idea after all. A claim like “Humans increasingly pay little or no attention to the signs of all that which cannot be measured or purchased but that are received as a gift (friendship, love, mercy, forgiveness, and the gift of life itself), and that actually play a major role in our lives.” (36) sounds like an empirical assertion, but I am not sure it is empirically true. In Denmark, investigations point to the fact that no other generation has spent as much time with their children as the present one,

and the commonplace critique of culture in the quote has a fragrance of German *Lebensphilosophie*, always willing to elevate some past to the status of a paradise. But whether these ethical ideas are, in fact, Sebeokian themes at all remains difficult to determine; the only text quoted is Sebeok's Herodotus reading which limits itself to the claim that Herodotus's story about Croesus entails the (sound) idea that the connection between verbal and non-verbal signs should not be blocked.

As mentioned, the small booklet has no rigid disposition but wanders back and forth in a reader-friendly way and makes these ideas clear in a peripatetic form accessible to a non-initiated reader. Later editions may become even more reader-oriented by the addition of an appendix with a (select) chronological bibliography of Sebeok's oeuvre.

Likewise, some small errors may be corrected in later editions: "semiosphere" is not Jurij Lotman's concept of "the totality of all human signs" (20), but, in his own words, "the whole semiotic sphere of the culture in question"ⁱ. Peirce's "symbol" is not defined by "arbitrariness" (18), but by habit (even if arbitrariness in many cases may follow). Much too much emphasis is placed on Peirce's concept of "abduction" when it is claimed that it be the only (or main) form of inference used in interpretation (30). Peirce's two other inference types, on the other hand, are both misrepresented (*ibid.*) when it is claimed that deduction follows "fixed and unquestionable rules" and only appears "by way of exception in mathematical demonstration"; as well as when it is maintained that induction should be based on a "complete test of *all* specific cases". Peirce's concept of deduction is tied to his crucial and fertile notion of diagrammatical reasoning with the central characteristic of making logical experimentation possible (like in thought experiments)ⁱⁱ, and it thus constitutes nothing short of a cornerstone in his epistemology. Likewise, Peirce is one of the first philosophers to realize that no strict logic of induction may exist (precisely because the examination of all cases is impossible!), and induction always remains a probable inference only. Moreover, ab-, de-, and induction most often appear together, in that order, intertwined in an ever ongoing three-beat rhythm in any sufficiently complicated interpretation process. To single out abduction at the expense of the other two inference types is to indulge in false dichotomies.

Another confusion in the small book probably stems from the master himself (or maybe from the matter discussed?) rather than from the authors. Compare the claims that "Semiosis is the criterial attribute of life" and "semiosis presupposes life" (8 - both are direct Sebeok quotes) with the idea that "The world is composed entirely of signs" (7, also a quote). Add the claim that "communication and life coincide" (55) as well as the idea that the universe is characterised "as a fact of *signification* long before becoming

a fact of *communication*"(7), and the confusion seems to converge towards infinity. Is the whole world by nature semiotic or is it only the living parts of it? If all life is semiotic, does it follow that it is also communicative, or is exactly the opposite the case? The answer to these questions depends critically on the definitions of the terms used, and Sebeok himself even developed his views over the years. As these ideas are crucial to the ongoing clarification of the possible role of biosemiotics, I shall go a little further into them here. They all pertain to what is gradually emerging as the semiotic "threshold problem"ⁱⁱⁱ, referring to the question whether - and where - there is a lower threshold of semiotic processes. The idea goes back to Umberto Eco's old contention that zoo-semiotics constitute the lower threshold of semiotics proper - an idea more or less implicitly shared by most of the French-inspired semiology or semiotics of the 60's and 70's (e.g. the Greimas school), and still widespread in much use of semiotics in media studies, cultural studies, literature departments, or anthropology today where semiotics is spontaneously seen as a humanities discipline only. This idea of a lower threshold at this point could accordingly be named the "Eco threshold". As is evident from the first of the above quotes, Sebeok's central idea is that biology and semiotics coincide, so that the lower threshold should be located at a far lower position so that the lower threshold of biology would be identical with that of semiotics. This idea might receive, in honor of the late master, the label of the "Sebeok threshold". Finally, some of Peirce's more mystical musings make the whole universe consist of signs (like in the quote of page 17 in this volume), a "pansemiotic" idea which is supported by John Deely or Peder Voetmann, among others, in our days.^{iv} So this (lack of a) lowest threshold might be called the "Peirce threshold".

Thus, three major proposals for thresholds defining the boundaries of semiotics compete institutionally. As it seems evident that all three of them correspond to important dividing lines in nature, we might rather be tempted to take them as indicating distinctions between different kinds of semiotics, characterized by different levels of complexity. This idea may find support in the fact that many more such thresholds can be sketched from various, current ideas in science. A further threshold, e.g., is indicated by Sebeok's above-mentioned distinction between (prior) signification and (derived) communication - seemingly motivated by the idea that signification is the simpler process because it involves only an interpreter and something interpreted (it thus may just as well be termed cognition in a broad cognitive-science sense of the word), while communication is a more complicated procedure involving two subjects exchanging signs. This would result in a threshold situated somewhere between the Sebeok threshold and the Eco threshold, maybe not so far from the biological threshold where multicellular animals with central nervous systems appear (and in such case the above-cited claim that life and communication coincide must be false,

because life would then be more comprehensive than communication). The dependence of such communication on coordinated bodily being may point to the alamic notion of “embodiment” and this threshold consequently be nicknamed the Merleau-Ponty or Lakoff threshold. Is there another threshold below this? - concerning whether the signification-cognition in question is actively gathered by the organism in an Uexküllian “functional circle”, including most animals and excluding most plants and funghi. If such a threshold exists, it might be called the Uexküll threshold, lying between the Sebeok and the Merleau-Ponty thresholds. Between the Merleau-Ponty and the Eco threshold, on the other hand, we might envisage a further threshold beyond which diagrammatic representation becomes possible, that is, animals with a brain sufficiently complicated for the appearance of skeletal, relational representations “analyzing” their object into connected parts. The empirical position of this threshold is hard to determine presently, but somewhere around the appearance of insects and vertebrates might be a guess. Beyond (or orthogonal to) the Eco threshold, furthermore, still more narrow - or precise - definitions of signification can be - and are - made. Take for instance phenomenology’s idea that signification requires the presence of intention implying consciousness (whether stemming from an empirical or transcendental subject is here of less importance), giving rise to a possible Husserl threshold, or the even more narrow idea in pragmatic linguistics that a conscious, linguistic act of communication must be present in order for real signs to be made (a Searle threshold?).

As is evident, the discussion which began in order to try to determine the lower threshold of semiotics rather points to the necessity of specifying a whole ladder of thresholds of increasing complexity, and there is no reason not to assume that such a ladder will end up with far more steps than the few ones sketchily mentioned here. Take for instance the Eco threshold setting human semiotics apart from the semiotics of other higher animals. Many different ideas prevail as to the precise character of this semiotic “missing link” threshold. Sebeok would claim the privilege of human language as against animal semiotics is the existence of syntax; some have pointed to the importance of reflexive self-consciousness and the emergence of a self concept as the decisive step; Chomsky holds a related idea of universal grammar module in the brain as responsible for this threshold; Terrence Deacon has proposed (1997) that man’s special abilities owe all their might to the introduction of the symbol^v. These competing ideas may even turn out to possess each their grain of truth, dissolving the maybe deceptively simple Eco threshold into a subladder of more refined thresholds: we have no reason not to assume that more than one decisive limits has been passed through the extraordinary co-evolution of human brain and language during the past million years.

The scientific construction of this ladder is twofold. One side of it is empirical: when did what happen, how, and why? - from proto-cell metabolism and to the origin of language. Another side is a priori: it concerns the ongoing uncovering of the interrelations and implications holding between the single semiotic and biological concepts used in the description, involving the development of regional ontologies for semiotics and biology.^{vi}

The ongoing refinement of such a evolutionary ladder integrating biological and semiotic steps is one huge vista opened up for by Tom Sebeok's widening of the semiotic perspective^{vii}. Sebeok has even done substantial parts of the preparation for this enormous task: his integration of many different perspectives in semiotics: ethology, theoretical biology, immunology, catastrophe theory, etc. But the task outlined by this threshold discussion is nothing less than enormous, and the reason why I do not fully share the optimism displayed by Ponzio and Petrilli's booklet is that I am not sure the semiotic community is completely up to the task. Maybe it is; I would love to be disappointed on this point. But semiotics as a whole has not followed Sebeok's expansionist movement into the "major tradition" required for this ladder to be built. And, what is more, the means required for this task may supersede even this major tradition.

Let us take a look some 40 years back, to the heydays of 60s semiotics around the foundation of IASS and the periodical you are now reading. Really heavy persons supported the birth of these phenomena: In addition to Thomas Sebeok, heavyweights, especially from linguistics, like Jakobson, Benveniste, Greimas, and others took side by the cradle. But since then, semiotics seem to have lost pace with linguistics. Major linguists of our time do not do semiotics, that is, they do not do it *explicitly*. Simon Dik and the functional grammar movement - very "semiotic" in their Aristotelian idea of semantics being motivated by functional purposes - form no part of average semiotic "literacy". The whole "cognitive semantics" movement, including Lakoff, Johnson, Turner, Fauconnier, Sweetser, Talmy, and others do not figure prominently in semiotics, even if their movement have given semantic questions new prominence in linguistics, and their idea of founding semantics on a knowledge of the cognitive apparatus - involving Gestalt Theory, experimental psychology, anthropology, and brain research - is unmistakably Jakobsonian in spirit. Recently, they even independently have begun talking about "cognitive semiotics". If we go outside the limits of linguistics, the ongoing general discussions in the whole area connecting computer science, cognitive science, philosophy of mind, and neurobiology is alien to most semioticians - including the important PET-scanning experiments concerning language understanding. The renaissance of Husserlian phenomenology and semiotics, including my colleague Dan Zahavi and the "naturalizing phenomenology" trend of Varela, Petitot et al. is one

more trend which has not reached semiotic shores. The new developments in logic connected with giants like Jaakko Hintikka or John Sowa are ripe with semiotic consequences for any Peircean to see, but fail to reach the semiotic community. The same goes for the renaissance of philosophy of mathematics, involving foundational semiotic issues, including names such as Penelope Maddy, Philip Kitcher, Hartry Field, John Robert Brown, Stewart Shapiro and others. Diagrammatic reasoning is growing in computer science; Peirce would be in ecstasy, but few semioticians are. The same goes for the important new interest in ontology and semantics in the Brentanian tradition, headed by scholars like Barry Smith, Kevin Mulligan, Peter Simons, etc. The integration of a renewed diachronic linguistics with archaeology and human genetic inheritance studies is busily constructing the ancestral tree of the human languages many thousand years further back than the limit until recently conceived around the time of Proto-Indo-European (Joseph Greenberg, Cavalli-Sforza, Merrit Ruhlen), but little semiotic activity is accompanying these developments. Other important developments include the whole new area opened up by consciousness studies around the Journal of the same name; the psychological tradition for research into categorical perception in man and higher animals as a prerequisite for concept formation (Stevan Harnad et al.); the so-called “complexity theory” tradition of Santa Fe which involves core semiotic problems (how are complex adaptive systems schematically able to represent their environment) and which even, almost biosemiotically, poses this question in a framework of theoretical biology (Stuart Kauffman, Brian Goodwin, etc.). If we pass from theoretical biology - still very speculative and marginal in the eyes of most biologists^{viii} - and to the enormous amount of actual empirical biological research from biochemistry upwards, the role played by semiotic considerations is close to nil, even if spontaneous semiotic imagery is widespread. Thus it is simply not the case, like Ponzio and Petrilli hopefully states, that semiotics is currently transforming biology. The biosemiotic hope, of course, is that the long, morphological distance between the genome and the variety of phenotypical organisms can only be covered by “epigenetic” explanation requiring semiotics, but it is not difficult to envisage such explanations being couched in a pseudo-determinist language, once again relegating the necessary semiotic vocabulary to the level of metaphors.

This list of missed encounters, moreover, is my private oversight only of what ought to be integrated in a future semiotics of Sebeokian spirit and range; naturally many more semiotically pregnant developments take place out there at this very moment without my knowledge. These shortcomings are not, of course, the fault of individual semioticians. Rather are they the effect of the overall miserable condition in the humanities (and social science

as well) which René Thom once parodied as being in a feudal condition, consisting of a patchwork of small states ignorant of each other, except for occasional, ritual border wars - in a stark contrast to the enlightened republic of the natural sciences. Semiotics has even the merit of being one of the few attempts at overcoming this balkanization of the humanities. The problem is that semiotics has not institutionally succeeded. Very few semiotic departments, research centers, academic positions exist worldwide. My own country, Denmark, is even rather well off with a certain amount of activity and scholars like Per Aage Brandt, Berit Brogaard, Peer Bundgaard, Claus Emmeche, Jesper Hoffmeyer, Jørgen Dines Johansen, Svend Erik Larsen, Michael May, our immediate neighbor Göran Sonesson, Peder Voetmann, Svend Østergaard, and others - but still, the role played by semiotics, institutionally as well as in the humanities at large, is but negligible. Most of these scholars undertake semiotic studies almost orthogonally to their proper positions in academia. And not many signs point in the direction that more semiotic scholars nor institutions will develop in a period when university policies are increasingly focussing on research which is immediately profitable in terms of technological innovation or in terms of intellectual fashion.

Ideally, then, the future of semiotics could be said to be more promising than ever. Proto-semiotic developments occur all over, even if vastly uncoordinated. I just do not see the semioticians to undertake the enormous tasks of developing, reflecting, and integrating these currents. They are not trained. Interdisciplinary studies in the humanities are not as popular as ten or twenty years ago, the individual departments shrink and concentrate on their immediate object of research - and the interdisciplinarity called for here even requires mastery of biology, sociology, computer science, logic, neurology ... and much more. In short, the task would require hundreds of potential Sebeoks. To make matters worse, the one actual Sebeok present unfortunately passed away during the writing of this small essay.

Even in somber times, of course, hope should not be forsaken. Let us hope Petrilli and Ponzio's short introduction to the one Sebeok we had will be one small step in the direction of this generalized Sebeotics.

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ⁱ Lotman 1990, p. 125. A further source of confusion may be my
Copenhagen colleague Jesper Hoffmeyer’s alternative use of the very same
concept to refer to the whole biosphere, biosemiotically conceptualized
(Hoffmeyer 1996).

ⁱⁱ See Stjernfelt 2000b.

ⁱⁱⁱ A conference organized by Winfried Nöth took place in Kassel in February
2001 with the title “The Semiotic Threshold from Nature to Culture” - in
which the authors participated alongside Jesper Hoffmeyer, Claus Emmeche,
Floyd Merrell, John Deely, Kalevi Kull, etc.

^{iv} I accept that a thorough Peircean continuism (which has many virtues as a
basic ontology) will imply that all of cosmos must in some sense possess
semiotic aspects. Still, I am not convinced that the description of simple
physical processes gains anything by the addition of semiotic terminology (in
strict opposition to the case in biology where the use of such terminology in
some form or other seems unavoidable, even for would-be reductionists
(“DNA code”, “genetic information”, etc.)). Maybe a compromise stance
could be to see the simple physical world being a semiotic zero-case, as
being only potentially semiotic. The crater on the moon as an effect of a
meteor crash is, objectively, a potential index for a potential interpreter. The
white dwarfs provides a natural class as may be grasped by a symbol for a
potential interpreter. Such a view would see simple physics rather as “proto-
semiotic”, just like Winfried Nöth has recently proposed (Nöth 2001).

^v I have myself attacked this idea (even if I find Deacon’s book highly
rewarding and worthy of study), because a Peircean notion of symbol like the
one we find in Deacon can be found widespread in higher animals. Instead I
have proposed Peirce’s notion of “hypostatic abstraction” to be a
distinguishing property in human semiotics (Stjernfelt 2001b).

^{vi} It can be expected that these regional ontologies will to some extent
overlap, if not simply coincide just like the Sebeok hypothesis mentioned
predicts.

^{vii} A perspective grasped by Hoffmeyer envisioning a “natural history of
signs” (1996).

viii As it has often been pointed out (René Thom, Brian Goodwin, etc.), part of the problem lies in the strange lack of theory in biology (as opposed to physics). It is as if biology needed only the underlying physico-chemical laws and the rest was just a question of empirical investigation in these regularities' complex collaboration.