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La sémiotique, entre autres

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INTERVIEW–OVERVIEW

Signata se clora chaque fois sur une rubrique intitulée « Interview–Overview », où parole sera donnée à un expert reconnu. La mission de ce dernier sera non point d'y encenser en bloc les propositions avancées dans les dossiers constitués par *Signata*, mais de jouer le rôle de ce que l'Église catholique appelle l'« avocat du diable » : apporter expressément la contradiction, mettre en évidence ce qui va à l'encontre de toute canonisation… « Interview–Overview » est une rubrique qui entend provoquer, et tester la tenue de la discipline sémiotique, dont *Signata* veut exprimer l'ouverture, en encourageant l'esprit critique et autocritique.

Semiotics Inside-Out and/or Outside-In. How to Understand Everything and (with Luck) Influence People

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> Mais, redisons-le, les partages disciplinaires ne concernent guère que les recherches terminées. La recherche en acte fait feu de tout bois.
>
> Jean-François Bordron (this volume)

> Voyons, pour commencer, ce que ne doit pas être la sémiologie si elle s'assigne la tâche metzienne de comprende comment on comprend : /1/ une sémiologie immanente … /2/ une sémiologie du cinéma.
>
> François Jost (this volume)

Given the texts submitted to my consideration, I draw the conclusion that the editors of *Signata* asked a number of scholars to examine the interdisciplinary relationship that semiotics entertains to a number of other disciplines, perhaps, as most clearly stated by Jean-François Bordron (this volume, my paraphrase) :

what use is semiotics to other disciplines, and what use are the other disciplines to semiotics? To take one given discipline and to compare it to neighbouring disciplines is a well-established strategy for anthologies and thematic issues of scholarly journals. The editorshave picked some traditional humanistic disciplines for comparison, such as art history and aesthetics, some more recent socially oriented disciplines such as media studies and cultural studies, in addition to social science as a bloc; mathematics and biology, somewhat more on the natural science side of the traditional divide; philosophy, of course, the inevitable discipline; and finally cognitive science.

It is remarkable that such as task is at all set. Semiotics, it seems, has come a long way since the heyday of immanent or autonomous semiotics, the epitome of which was the Greimas School, several representatives of which participate in this volume. The question about « what use can semiotics be to other disciplines » was no doubt legitimate already at the time, albeit left for other disciplines to formulate, but it was not conceivable to ask, « what use can other disciplines be to semiotics ». Slowly, it seems, hard-core semiotics has been eroded. Interestingly, François Jost (this volume) states that if semiotics is to be of any interest to his enterprise, it is certainly not the immanent kind, and Pierluigi Basso (this volume) believes that recently there have been a number of adjustments to the immanent stance of semiotics. But how far do these adjustments go? Although Basso starts out claiming that he is not going to defend semiotics from the criticism levelled against in from the outside, his whole article is in fact consecrated to such a defence.

At least one author, however, took on another task than that anticipated by the editors. Per Aage Brandt (this volume) does not ask what use semiotics and cognitive science may be to each other. As the title reads, he presents cognitive semiotics as a new paradigm for the study of meaning. Or perhaps not. Reading the article, you can get the impression that what Brandt wants to propose is a merger of semiotics and cognitive grammar, a particular direction within linguistics, and more specifically the study of mental spaces characteristic of one variety of cognitive grammar pioneered by Gilles Fauconnier and Mark Turner. Yet Brandt was also instrumental in launching the journal *Cognitive Semiotics* a few years ago, which, on its homepage is described a being devoted to « integrating methods and theories developed in the disciplines of cognitive science with methods and theories developed in semiotics and the humanities, with the ultimate aim of providing new insights into the realm of human signification and its manifestation in cultural practices ». This certainly seems to go much further than simply considering the relevance of semiotics and cognitive science to each other. Cognitive science, it should be noted, also looms large in the account of the outside of semiotics, at least in the articles by Bordron and Basso (this volume). It is mentioned, moreover (though less than might be expected), by Denis Bertrand and Bruno Canque (this volume), whereas the article by Jean Petitot (this volume) is essentially as chapter out of the history of cognitive science. The central issue to be considered, therefore,

would seem to be the relationship between semiotics and cognitive science. The label « Cognitive semiotics » may serve to name this problem[1].

1. Semiotics as an Intellectual Tradition and/or a Science

The idea of autonomous linguistics, as conceived by Saussure, is basically misguided, as I wrote in one of my first articles (Sonesson 1979), at least if it is seen as more than a first step, before taking into account psychological and sociological facts (« the theory of substance » in Hjelmslev's parlance), but it amounts to a real paradox, when it is transferred to semiotics, the whole point of which is to determine the similarities and differences between different semiotic resources. In fact, without neglecting formal analysis, I have incorporated knowledge from other sciences from the start into my own semiotic account, in particular, of course, in my work on iconicity generally and the semiotics of pictures in particular (Sonesson 1989, etc.), where cognitive and perceptual psychology turned out to be particularly relevant. Others have done so, too, of course : one of the two or three single greatest contributions to pictorial semiotics, the *Traité du signe visuel* by Groupe μ (1992), is certainly very much indebted to perceptual psychology, in spite of some phrases at the beginnings wearing allegiance to autonomous semiotics. Others have gone further in using the experimental techniques of psychology, within pictorial semiotics René Lindekens (1976) and Martin Krampen (1983), notably. If semiotics has generally been afraid of trying out its hypotheses in the laboratory, as Basso (this volume) observes, then that certainly has a lot to do with its immanentist heritage. Letting loose semioticians in the laboratory (as we already do here at CCS in Lund) would seem to be the final step required for realising cognitive semiotics.

Thus, I have recently discovered that, like a second Monsieur Jourdain, I have been doing cognitive semiotics all along, without knowing it (Cf. Sonesson 2009, 108). But unlike Monsieur Jourdain, perhaps, now that I know what I am doing, I would like to understand it better.

1.1. *The Methods and Models of Semiotics*

There have been numerous books and thematic issues of journals assembled around such themes as « Philosophy and the Sciences », « Psychology and the Humanities », and so on. Why is it then that the idea of confronting semiotics with other disciples is, if not strange, at least innovative ? A century after Saussure declared that the place of semiotics within the system of sciences was determined beforehand, we are still not sure that there is such a science. Bordron (this volume) suggests that something becomes a science essentially for social reasons, which is a diagnosis I made myself some time ago (Sonesson 2008). Eraly (this volume) would seem to extend this doubt also to all of the social sciences. But even if we

1. For more about cognitive semiotic as a specific branch of inquiry, cf. 3.3. below and Zlatev 2011.

can explain why semiotics has had much less social luck than cognitive science, we may think there are reasons for claiming that semiotics, rationally considered, should be a science. At the same time, many people would probably find the idea of a volume on the use of the semiotic model, the semiotic method, or the point of view of semiotic philosophy to be easier to grasp. The problem is, nevertheless, that there are many semiotic methods, models, and philosophies. The unity of semiotics must be found somewhere else.

From an epistemological point of view, it is simple to ascertain that semiotics can in no way be a method or a model. Not to overburden our argument, let us define a method as a series of operations which might be applied in ordered stages to an object of study, with the goal of yielding information of a particular kind about the object studied; and let us similarly decide that a model is a simplified, but still more or less iconic, representation of the object studied which can be more easily manipulated than the real thing, and which (ideally) has the advantage of representing classes of objects of a particular category, rather than a single object, so that, when methodological operations are applied to it, it yields information about the category of objects concerned.

For someone who is not a complete outsider to semiotics, and who thus identifies it with French structuralism (even including postmodern), and who is not such a consummate insider as to identify it with the model he or she favours, it most be obvious that there are many models in semiotics, and while some of them may be compatible, others manifestly exclude each other. Semiotics, just as all other sciences, contains a wealth of models, as well as a panoply of methods. When one particular model and/or method is attributed to semiotics, it is obviously being confused with one of its manifestations having course during some particular period, most probably the movement known as French structuralism, which was popular in the 1960ies and 70ies, but which has since lost its relevance in most quarters. It may rightly be said about French structuralism that it tried (mostly in vain) to apply a linguistic model (itself abusively derived from the linguistic structuralism developed, notably, by Saussure and Hjelmslev), as well as to implement (but completely failing to do so) the method of the same linguistic school.

Semiotics as such is not restricted to any single method, but is known to have used several kinds, such as an exhaustive analysis of concrete texts, or text analysis (comparable to distributional analysis in linguistics and « explication de texte » in literary studies), as well as — to too small an extent, I am afraid — classical experimental technique (well-known from psychology) and imaginary variation of properties, or system analysis, reminiscent of the kind of reasoning found in philosophy, most explicitly in phenomenology. In addition, semiotics has employed a hybrid form of text analysis and imaginary variation, which I have elsewhere called text classification, notably in semiotically inspired rhetoric, as conceived by Groupe μ and continued in my own work (cf. Sonesson 1996;

1997 ; 2010a) : instead of trying to exhaust any single text, it derives some (binary) properties from an imaginary variation and searches for texts which manifest them. Bouissac (1999a, b) also talks about four « ways of acquiring knowledge » within semiotics and elsewhere, which partly correspond to my division : « experiment » and « reasoning » has obvious parallels, « serendipity » would for me be something occurring at certain moments within the other strategies, and « meta-analysis » is an aspect which I have not mentioned, but to which I will turn below.

Nor do I think there is any reason to consider semiotics necessarily dependant on models taken over from linguistics, as is often believed, although the construction of models remains one of its peculiar features, if it is compared to most of the human sciences. Indeed, semiotics differs from traditional approaches to *humanitas*, whose domain it may partly seem to occupy, in employing models that guide its practitioners in their effort to bring about adequate analyses, instead of simply relying on the power of the « innocent eye ». After having borrowed its models from linguistics, philosophy, medicine, and mathematics, semiotics is now much in need to start the serious elaboration of its proper models (cf. Sonesson 2008). The question then becomes what kind of models this might be. Petitot (this volume) argues for mathematical models as a substitute for what he calls formal models, inspired in logic and computer languages. Such formal models, however, would seem to be a fact of cognitive science rather than of semiotics. The homemade formalism of the Greimas School probably would not qualify here. Together with René Thom, Petitot was of course one of the first to apply mathematical, and more precisely, morpho-topological models to semiotics. Interestingly, Bertrand and Canque (this volume) reject formal models precisely in the guide of the catastrophe theory propounded by Thom and Petitot. Catastrophe theory has not been a success in biology, they claim, because life is meaning, and few meaning have any specific morphology. For my part, I think they have a point. But what kind of models you find adequate depends more, in my view, on the epistemological viewpoint from which you do semiotics than on semiotics as such.

1.2. *Semiotics as a Particular Philosophy*

Nor should we adopt the popular preconception, according to which the semiotic field is inhabited simply by the followers of Peirce and Saussure, when determining what semiotics is. In the first place, there would be no reason (more than a superficial terminological coincidence) to amalgamate two such dissimilar doctrines as those represented by the elaborate but fragmentary philosophy of Peirce, and the marginal, if suggestive, annotations of Saussure. But, more importantly, in adopting this point of view, we would be unable to account, not only for the semiotical work accomplished well before the time of our two cultural heroes, be it that of the stoics, Augustine, the scholastics, Locke, Leibniz, or the ideologues, but also for much of contemporary semiotics, some parts of which are not particularly indebted to any of the forefathers.

In an article in which he says many sensible things in defence of semiotics, Umberto Eco (1988, 323ff) comes up with a very strange conception of what the latter is : on the one hand, he admits that there are certain specific semiotic sciences, such as those which study the interpretative habits involving events in verbal language, gestures, traffic signs, pictures, and so on ; on the other hand, he claims that there is a general semiotics, which simply postulates the concept of sign, thus permitting us to speak about superficially dissimilar things within a unified framework. The latter, he maintains, is not a science, but a philosophical activity, and this is in his view demonstrated by the very proliferation of different conceptions of what semiotics is. Indeed, he goes on to say, it is a variety of the philosophy of language, which has the particularity of going beyond the study of statements, to the underlying activity, and which does not limit itself to a single semiotic system, verbal language.

It is interesting that Eco should admit that the studies concerned with specific semiotic phenomena are sciences ; but that is no doubt because some of these sciences existed well before modern semiotics was in the works. The study of verbal language, for instance, has long been known as philology or linguistics. In some cases, however, this conception would require the establishment of new disciplines : there is, for instance, no well-accepted branch of knowledge involved with the study of gesture, which is still treated within anthropology or psychology, or under the absurd and misleading heading of « non-verbal communication ». In recent decades, no doubt, there seems to be a consensus for using the term « gesture studies » — although one of the founding fathers of the speciality, Adam Kendon (2004) seems to have ever more qualms about the use of the term « gesture ». The semiotics of pictorial signs is even more in need of being established as an independent discipline, because art history has never been interested in pictures as such, but only in a series of pictures considered each in turn, and the findings of recent perceptual psychology have to be brought into contact with more systematic studies, similarly to the way in which post-Chomskyan linguistics has been related to psycholinguistics. The rudiments of a body of knowledge corresponding to a semiotics of pictures already exist ; but it can hardly be considered a well-established discipline.

This part of Eco's thesis was actually formulated well before him by Luis Prieto (1975a, b), who argued that disciplines such as anthropology, ethnology, sociology, psychology, literary history, art history, history of religion, archaeology, and so on, should more aptly be called the « semiotic sciences », rather than being distributed among the social sciences and the humanities, because what they have in common is that they are involved with meaning. Eco (1988, 351) himself points out that while the natural sciences are interpretations of the first degree, the semiotic sciences are interpretations of interpretations. Here, Eco would seem to re-join classical hermeneutics (Cf. Ferraris 2002). This characterization, undoubtedly, also applies to what archaeology does with artefacts left in some prehistoric burial ; it

may not apply to the radiocarbon dating of these artefacts, but it certainly applies to the interpretative frame in which the resulting dates are later inserted and given a meaning. More obviously, it applies to most things done in art history, though, once again, the study of artistic materials is only indirectly contained within this description, because of the chemical analyses being made on substances defined for an « artistic » purpose.

But Prieto allowed general semiotics to subsist and to remain a science, although at another level of generality. Although Prieto is not very clear about the nature of this general semiotic theory, his own work within the domain seems to imply the conviction that it should not only furnish the semiotic sciences with a coherent framework, before the specific disciplines can accomplish their task, but that it would also be called upon to compare the results of these disciplines, in order to determine how different resources for conveying signification may differ. Whether or not this common framework consists in the concept of sign, or if something different, or something additional, is needed, it seems strange to say that this framework is simply « postulated » by a philosophical movement, as Eco maintains. If so, all these disciplines would only be valid, given a particular philosophical framework, and for someone not sharing this framework, all these particular domains of study would have nothing to contribute. In the end, then, specific semiotics would also be given over to the whim of philosophy.

Curiously, Eco even claims that the fact of there being different semiotical points of view demonstrates that semiotics is a philosophical activity; but, at the very least, this would show that semiotics is a class of different philosophical and/or scientific activities. Actually, a much more natural conclusion would be that, just as sociology, psychology, archaeology, literary history, and so on, semiotics can be practised from the point of view of different philosophical conceptions. Thus, there may be a structuralist semiotics, a nominalist semiotics, a phenomenological semiotics, and so on — just as there may be, for instance, a processural and a post-processural archaeology, a positivist and a post-modernist art history, and so on.

Semiotics, to adopt Peirce's phrase, needs to get out of the « philosophical soup shops ». All sciences have once separated themselves from philosophy — a process that of course (as we shall see) always leaves a residue in the tureen. Meanwhile, this is a fact that makes it difficult to compare philosophy (as Bordron proposes to do here) to other disciplines : if semiotics is ever being successful, another swig will have been taken out of the philosophical soup. In any case, a bigger gulp has already been taken by cognitive science.

1.3. *Semiotics as an Interdisciplinary Endeavour*

Those who look upon semiotics as a method or a model undoubtedly themselves take up a position outside of semiotics. Eco's claims, however, are made from within semiotics itself. A more commonly voiced point of view among people closely involved with semiotics is that it is « an interdisciplinary perspective ». I

find it difficult to see the point of this description. Either it means that people representing a lot of other more well-established disciplines come together at semiotic congresses ; but, if so, it does not describe any situation which is original to semiotics, and there is no reason for this state of facts having to determine the future of any discipline. Or it really means that semiotics itself is something « in-between » other disciplines. If so, that is not particularly new either : from social psychology to cognitive science, other disciplines have been born out of such an intermediate space. This also means that the phrase cannot describe the particularity of semiotics : there are a lot of other « interdisciplinary perspectives ». So, at the very least, something needs to be added to this definition.

A more sophisticated version of this description is Paul Bouissac's (1998, 1999a, b) claim that semiotics is mainly involved with « meta-analysis », which « consists in reading through a large number of specialised scientific publications, selected among the published literature in one or several domains of inquiry, and of relating the partial results within a more encompassing model than the ones that are held by the various specialists concerned »(1999a, 4). This is indeed something which semioticians tend to do ; but so do of course a lot of people working within cognitive science and a lot of other purportedly « interdisciplinary perspectives ». We are still left with the question what the specificity of semiotics is. It cannot lie in that « more encompassing model », for we have seen that semiotics is more than a model, since it makes use of a lot of them. Of course, it may contain a class of more wide-ranging models. But in order to contain models, it must be something else : a discipline.

So what, then, is the central framework provided by a semiotic « meta-analysis » ? Not simply the postulated concept of sign, as Eco suggests. I would be the first to agree with Bouissac (1998) that the notion of sign is insufficiently defined in semiotics. In fact, I have often argued that both the central traditions, the Peircean as well as the Saussurean, simply presuppose the essential components of the sign (cf. Sonesson 1989 ; 2010b). Contrary to Bouissac, however, I think the concept of sign makes perfectly good sense, once it has been properly defined (cf. below). Itself a fruit of meta-analysis, my definition abundantly refers to ontogeny, as well as to phylogeny. However, this does not mean that the concept of sign is sufficient to define the domain of semiotics, which has to be much wider, at least because signs cannot be treated independently of a wider concept of meaning.

Indeed, to inverse the proposition, semiotics cannot be defined by the sign concept. Interestingly, in the present collection of texts, Bordron (following true Greimasean orthodoxy) affirms that semiotics only comes of its own when the concept of sign is superseded, having recourse instead to the kind of homologies posited by Lévi-Strauss, and Bertrand & Canque find homologies between language and biology simply postulating two binary relationships having a correlation. On the other hand, Georges Roque, Jan Baetens, and Alain Eraly (this volume) all take for granted, in their comparisons of semiotics to other disciplines, that the sign is

what defines semiotics. It seems that it has never occurred to anyone (in this volume and outside of it) that the sign, suitably defined (which would imply a definition which would certainly have to include language but also some other kinds of meanings, such as, pictures and at least some gestures), may be a particular kind of meaning, leaving other (and, at least, partly, ontologically and phylologically earlier) meanings to be defined. Outside of semiotics proper, of course, both Piaget and Vygotsky would seem to maintain such as view, and, rather more implicitly, it also seems to be corroborated by the work of more recent psychology and anthropology, such, as for instance, the work of Michael Tomasello (1999 ; 2008) and Merlin Donald (1991 ; 2001).

2. Beyond the Classification of the Sciences

The most neutral way of looking at semiotics is as a tradition consisting of problems posed and solution proposed which together form a series of entangled strains of problem areas making up a continuous discussion running through the centuries (Cf. Sonesson 1989, I.1.). Philosophy is made up of such tangles, and now and then some part of such a tangle is taken out of the mesh and made into its own particular strain, which is then called a science or a discipline. From an epistemological point of view, nothing changes. This research tradition would still be characterized by its peculiar point of view. And it would not be equivalent to a « doctrine of signs ». It would be much more like a discussion : a network of problems branching out ever further through the centuries. In the following, when I talk about semiotics as a science, it should be understood in this sense. Indeed, I would like to claim that a science is simply a research tradition, in the above-defined sense, which has been institutionalized within society (Sonesson 2008). This would also seem to be the point of view taken by Bordron and Eraly (this volume). It must not follow, however, that the division of the sciences is entirely arbitrary.

2.1. *The Division of Sciences as the Division of the World*

So far, I have tried to characterise complex notions such as method, model, movements, and so on, in very simple terms, sufficient to rule out the possibility of semiotics being one of those things. Now we face the even more daunting task of trying to determine what a science is. As a first approximation, one may want to say that a science *is a particularly orderly and systematic fashion for describing and analysing or, more generally, interpreting a certain part of reality, using different methods and models*. At this point we may want to introduce a division between natural sciences, on the one hand, and social and human (or, better, semiotic) sciences, on the other, which, following a traditional hermeneutical conception echoed by Eco (1988, 351), separates the interpretation of facts from the interpretation of interpretations. Normally, it is added that the first kind of

knowledge involves phenomena for which laws may be formulated, while the second kind only refer to unique occurrences ; and that while the second type may be understood, the first can only be explained. As we will see, this is largely a pre-semiotic conception.

In same ways, the division of sciences is artificial, to the extent that the division of reality is. Social phenomena may be separated from psychic phenomena, but at some point they will inevitably overlap. And yet it makes sense to say that there are central phenomena which are specifically social or psychic. In the same sense, some phenomena may be importantly semiotic, while at the same time partaking of the nature of social and/or psychic phenomena. It might be said that there really is only one world, in which everything is continuous, although there may be clusters of characteristic properties forming prototypes, which slowly fade into other characteristic properties. If the hermeneutic view propounded by Eco is correct (and I think it is, at least to some extent), there are really two worlds, however : that of facts, and that of interpretations. And if we take a phenomenological standpoint, the world of interpretations is primary. It is the Lifeworld, the world taken for granted. In this sense, all the human and social sciences are continuous, as is the world they study, and so are the natural sciences, although their continuity is such in reference to another world, the constructed world of the natural sciences. Ecological physics is part of the Lifeworld ; physics as a science is part of the other world.

None of this means that the division of the sciences is arbitrary, contrary to what Bordron and Eraly (this volume) would seem to think. French structuralism tended to interpret Saussure in a positivist manner, when saying, for instance, that it is the point of view which creates the object. It should be clear from Saussure's preoccupation with the issue that he did not take the decision as to what objects where the objects of linguistics to be arbitrary. On the contrary, he wanted to fix the attention of linguistics on the central cluster of linguistic properties. One may argue that he failed to do so in a proper way, as Chomsky more unambiguously failed to do later on. But that does not mean he set the task wrongly. The same applies to semiotics in general. There certainly are specifically semiotic phenomena. Whether they deserve a discipline of their own is a different matter. It is essentially a matter decided by society at large[2].

2.2. *The Division of Sciences as the Division of Points of View*

But there is something seriously wrong with this analysis, even at its earliest stage. Not all sciences appear to have their own reserved piece of reality to study. It seems to me that sciences may be defined either as being preoccupied with a particular domain of reality, or as applying a particular point of view to the whole of reality (which is really one and the same). Thus, French studies are involved with French

2. On how this come to pass in the case of archeology, cf. Sonesson 2008.

language and literature, linguistics with all languages (or what is common to all languages) ; similarly, the history of religions describes a very particular domain of reality, religion, as it evolves through history (and pre-history). Even within the natural sciences, there are some sciences that have their particular domains, such as geography, astronomy, and meteorology. This seems to be even more obviously true of such applied sciences as medicine and dentistry.

But there is no semiotic domain, just as there is no psychological or sociological one : rather, everything may be studied from the point of view of its semiotic, as well as its psychological, or sociological properties. We find the same thing in the natural sciences : chemistry and physics often appear to be different points of view taken on the very same matter. This is not the whole truth : in fact semiotics, psychology and sociology only apply their points of view to the human world, or at least to the world of living beings (in most cases, to animals, not to plants). So the point-of-view approach is supplemented by a domain-approach. The domain of chemistry and physics is much wider : its goes well beyond the human world. But both apply the same point of view to the human world and what lies behind it, which is impossible for semiotics, as well as for psychology and sociology. Contrary to chemistry and physics, biology is not just another point of view, but it is also domain-specific : it only involves living creatures. This may explain that there is now such a speciality as biosemiotics but not (at least I hope so) chemical semiotics.

In the following, then, semiotics will be taken to be a science, the point of view of which may be applied to any phenomenon produced by the human race or, more widely, by living beings. This point of view consists, in Saussurean terms, in an investigation of the point of view itself, which is equivalent, in Peircean terms, to the study of mediation. In other words, semiotics is concerned with the different forms and conformations given to the means through which humankind believe itself to have access to « the world ». This is at least the way I have formulated the task of semiotics in my earlier work. For many reasons (which have been clear with the emergence of cognitive science and biosemiotics), it now seems impossible to limit semiotics only to the way the human world is endowed with meaning. Even when discussing pictures, which are peculiar to human beings, we can only understand their specificity in contrast to meanings handled by other animals. It will therefore be better to avoid any kind of belief-predicates in the characterization of semiotics. Thus, semiotics should here be said to be concerned with the different forms and conformations given to the means through which living beings are observed, through their interactions with it, to have access to « the world ».

The very term « point of view » is of course a visual metaphor. Yet the point, which is a standpoint, matters more than the sense modality. For, in studying these phenomena, semiotics should occupy the standpoint of humankind itself (and of its different fractions). Indeed, as Saussure argues, semiotic objects exist merely as those points of view that are adopted on other, « material » objects, which is why these points of view cannot be altered without the result being the disappearance of

the semiotic objects as such. Analogously, it has been argued that we should have to adapt the point of view of the bat, let alone the tick, but it is not clear that this can be done in the same sense.

Taking the point of view of the users, and trying to explain their particular use, we cannot, like the philosopher Nelson Goodman (1968), reject the folk notion of picture because of its incoherence, but must discover its peculiar systematicity. But it does not follow, as Prieto (1975a) would claim, that we must restrict our study to the knowledge shared by all users of the system, for it is necessary to descend at least one level of analysis below the ultimate level of which the user is aware, in order to take account of the presuppositions underlying the use of the system. Semiotics must go beyond the standpoint of the user, to explain the workings of such operative, albeit tacit, knowledge that underlies the behaviour constitutive of any system of signification (cf. Sonesson 1989, I.1.4).

Moreover, semiotics is devoted to these phenomena considered in their *qualitative* aspects rather than the *quantitative* ones, and it is geared to rules and regularities, instead of unique objects. This is to say that, pictorial semiotics, like all semiotic sciences, including linguistics, is a *nomothetic* science, a science which is concerned with generalities, not an *idiographic* science, comparable to art history and most other traditional human sciences, which take as their object an array of singular phenomena, the common nature and connectedness of which they take for granted. I would like to insist on this combination here, since it overrides the traditional divide between the humanities and other sciences, postulated by the hermeneutical tradition from Dilthey and Weber to Habermas and Apel : even a well-established semiotical discipline such as linguistics, including the study of any particular language, involves the establishment of laws and regularities, not individual facts. Just like linguistics, but contrary to the natural sciences and to some varieties of the social sciences, all semiotic sciences are concerned with qualities, rather than quantities — that is, they are concerned with categories more than numbers. Thus, semiotics shares with the social and natural sciences the character of being a law-seeking, or nomothetic, rather than an idiographic, science, while retaining the emphasis on categories, to the detriment of amounts, which is peculiar to the human sciences. Being nomothetic and qualitative, pictorial semiotics has as its principal theme a category that may be termed pictoriality, or picturehood — which is a peculiar version of iconicity[3].

At this point, then, we could say that a science, as well as being a particularly orderly and systematic fashion for describing and analysing or, more generally, interpreting a certain part of reality, might also be *a systematic way of pursuing a number of problems emerging from a particular point of view taken on reality as well*

3. This is not to say that semiotic results must be formulated in terms of Hempel's covering law (as has been claimed by some exponents of « New Archaeology ») : we are referring to the distinction between nomothetic and idiographic descriptions in the more general sense of Rickert and Windelbrand.

as the solutions given to these problems and the new problems resulting from these solutions. In this sense, semiotics is certainly a science.

2.3. *Semiotics in Between the Human and the Natural Sciences*

In the small article on which rests Ernst Cassirer's (1972, 91) principal claim to being a pioneer of semiotics, he declares that « linguistics is part of semiotics, not of physics ». This, however, is all he has to say about semiotics. The bulk of the text is taken up by a much more classical discussion : whether linguistics is to be considered part of the *Geisteswissenschaften* or the *Naturwissenschaften*. Cassirer has learnt the lesson of the Prague school well : he quotes Trubetzkoy's opposition between phonetics which is concerned with material facts, such a sound vibrations, or the movement of the speech organs, and phonology which is concerned with « incorporeal things », that is, as Cassirer (1972, 90) points of, with units determined by meaning. Not only the segmentation of the world, but also that of the outer form of language, depends on a « world-view » : it is the effect of the double Saussurean cut through two amorphous masses, those of thought and sound. Phonology, then, and the whole of linguistics, is a *Geisteswissenschaft*. More importantly, however, Cassirer observers that, in this whole methodological struggle (for instance in the work of Dilthey and Rickert), « the fact that there is such a thing as human speech and that there is such a thing as linguistics was never mentioned »(1972, 89). He does not hesitate to qualify this as « a very regrettable fact, a sin of omission that could not fail to have its consequences ». Nowadays, it may be added that, as linguistics has now been generalized to a series of particular semiotical sciences, such as pictorial semiotics, gesture studies, cultural semiotics, and so on, the result of neglecting these domains of study in the theory of knowledge are even more dire.

Strange to say, linguistics and other semiotical domains, as particular kinds of epistemological practices, were still ignored in the middle of the 20th century, during the new *Methodenstreit*, in the works of Gadamer, Habermas, Luhmann and others. In fact, many of these thinkers (as is also true of Dilthey) attribute much importance to language in other respects (as does, for instance Habermas, with his ideal speech situation), and yet they do not take the peculiarities of the semiotic sciences into account. They fail to realize that linguistics, and other semiotical sciences conducted on this model, do not really correspond to either the description of the natural or the cultural sciences.

Unfortunately, Cassirer himself does not seem to take this peculiarity into account. In another publication, which is specifically dedicated to the study of the nature of the cultural sciences, Cassirer (1942, 63ff) takes exception to the simplistic opposition usually proposed between the natural and cultural sciences, claiming that general concepts are needed also in the latter. He starts out exemplifying this with linguistics which, in Humboldt's terms, studies the differences between the varying inner language forms, such as languages, like many Indo-European ones,

which distinguish masculine, feminine and neutral gender in the nouns, and those which separate noun classes according to other criteria. He then goes on to discuss art history, exemplifying its general terms with Wölfflin's opposition between the picturesque and the linear style. However, if we consider linguistic research as it is really conducted, it is very different from art history, even supposing that thinkers like Wölfflin and Riegl had had more success in introducing their general concepts to the discipline as it is really practiced. Whether linguistics is concerned with universals of language (mentioned by Cassirer 1972, 83, with reference to Jakobson), or it simply has the aim of formulating the phonological, grammatical and semantical rules of a given language, it is involved with something general, not with individual facts. Even as analysis of conversation (the Saussurean « linguistique de la parole »), linguistics is interested in formulating general rules. Historical linguistics, which may still have appeared as a more important part of linguistics in Cassirer's time, is certainly involved in a sense with singular facts, such as the dates at which certain language changes occur. But even in the pioneering days of Grimm and Paul, historical linguistics was very much dedicated to formulating rules of language change. Art history, even in the radical version of Wölfflin, only uses general facts as regulatory concepts for the studies of individual items. That is why art history is not pictorial semiotics.

Cassirer (1942, 65) may however by right in claiming that the general concepts involved in the cultural sciences are neither nomothetic nor ideographic, in the sense often given to these terms. They are not nomothetic, he says, because in the cultural sciences, individual phenomena cannot be deduced from general laws. And they are not ideographic, because they cannot be reduced to history. This is of course the distinction I have tried to account for in distinguishing the nomothetic and qualitative sciences of semiosis from the nomothetic and quantitative sciences of nature.

3. On the Way to Cognitive Semiotics

To say that something becomes a science because of social reasons is not to suggest that those reasons are necessarily superficial, the result of power games and nepotism. In the case of semiotics, it may simply be the case that semiotics has so far failed to demonstrate its usefulness to wider groups within society. However, society as such is certainly also at stake : for some reason, the fortune of semiotics has been very different in Latin, and in particular Latin American, countries, than in the Anglo-Saxon, and more generally Germanic, world. People in the latter part of the world would no doubt tend to think that this is so because Latin culture is more susceptible to intellectual fads. There may be some truth in this, if semiotics is identified with intellectual fashion statements such as structuralism, post-structuralism, and post-modernism. But this is a very limited, and uninteresting, way of looking at semiotics.

3.1. *Meta-analyses in our Time : Semiotics and Cognitive Science*

It might be useful here to contrast semiotics with another brand of « meta-analysis » which has met with more luck in the contemporary world, at least in the sphere under Anglo-Saxon influence : cognitive science. Like semiotics, cognitive science is often conceived as an interdisciplinary perspective that sometimes (no doubt more often than semiotics) has gained the position of an independent discipline. Curiously, it might be argued that cognitive science and semiotics cover more or less the same domain of knowledge — or rather, to apply the observations made above, take a very similar point of view on the world. This in itself is controversial, since semiotics and cognitive science offer very different characterizations of their domain (or, strictly speaking, the point of view taken on the domain). In some sense, however, both are concerned with the way in which the world described by the natural sciences appears to humans beings and perhaps also to other animals and some robots. Cognitive science puts the emphasis on the place of the appearance of this world, the mental domain (although some of its exponents would not even recognize the mind as such, but would rather talk about the brain and/or the computer), and on its characteristic operation, cognition ; and semiotics insists on the transformations that the physical world suffers by being endowed with meaning. Indeed, in an earlier phase, cognitive science seemed more susceptible of being described by a simple model : the mind as computer. At present, however, even cognitive science has several models, one of which could be described as involving the mind as brain.

The disciplinary history of these two approaches has been very different. Cognitive science is often described as the result of joining together the knowledge base of rather disparate empirical disciplines such as linguistics, cognitive psychology, philosophy, biology, and computer science. Thus, instead of one research tradition connected through the ages, cognitive science represents a very recent intermingling of several research-traditions having developed separately until a few decades ago. Semiotics has, in a more classical way, developed out of the amorphous mass of philosophy, and still has some problems encountering its empirical basis. It might be suggested that the basic concept of semiotics is the sign, whereas that of cognitive science is representation — even though there is a long tradition in semiotics for rejecting the sign concept, and recent cognitive science has marked its distances to the notion of representation[4]. From the point of view of methods, semiotics is generally speaking stuck between the analysis of single « texts » and theory construction, whereas cognitive science is closer to relying on experimental methods (including, of course, computer simulation). These differences partly may explain why semiotics and cognitive science rarely are on speaking terms. They may also explain why cognitive science has had so much more institutional success than semiotics : experimental methods are

4. If this seems a paradoxical statement, I must refer the reader to Sonesson 2007, 2010b.

(rightly) appreciated, unfortunately also when they lack theoretical depth ; and computer stimulation seems to make science share in the prestige of the machine, in particular the « thinking » machine, in our time.

It does not make sense nowadays to invoke « cognitive science » as a whole. Cognitive science can be practiced, and indeed has historically been practiced, from very different points of views. There is some paradox to the very name « cognitive science », because its initial aim was to do away with cognition, and indeed consciousness, as we know it. Indeed, the fact that mental life could be simulated on a computer was supposed to show that mental notions could be dispensed with altogether. Consciousness was, in this view, not in any way more difficult to explain than the possibility of having snippets of code making the same kind of calculations as the human brain. Jerry Fodor's (1987) argument for the « language of thought » is the most explicit version of this point of view. And this conception is still very influential within cognitive science in the form of Daniel Dennett's (1987) idea about the « intentional stance » : that human beings simply work like computers, with the added twist that they, for no useful reason at all, happen to think they are conscious.

At some point, some researchers within the cognitive science tradition realized, not only that human beings could not really function outside the context of a human life world, and without taking their bearings on their outside bodily form, but that this was true also of computers able to simulate or accomplish some of the operations typical of human beings. This brings us to the notions of « situatedness », which has henceforth played an important role in cognitive science, and also to the complementary notion of « embodiment ». Too much should not be made of these notions, however, because, as mentioned above, they apply to computers as well as to human beings. It is no doubt true that they served to bring inspirations from phenomenology and other traditions involved with consciousness into the fold of cognitive science, which is in itself a remarkable feat, if we remember that, before that, many phenomenologists, such as most famously Hubert Dreyfus, and a notable representative of the British style of the philosophy of mind such as John Searle, were violently opposed to cognitive science. However, both situatedness and embodiment can be given — and have been given — other, more mechanistic, interpretations. The preoccupations with notions such as agency, intentions, consciousness, empathy, intersubjectivity, etc., are typical of « consciousness studies », such as practiced, for instance, by Evan Thompson (2007), Shaun Gallagher (2005), Dan Zahavi (2003) and a few others, but not of cognitive science as a whole. In fact, these notions are anathema to much of cognitive science, both in its classical version and, in a more implicit and confused way, in what nowadays may be described as mainstream cognitive science, associated with the work of Lakoff and Johnson, Dennett, Fodor, etc.[5].

5. My first tradition seems to correspond to what Thompson (2007, 4ff) calls cognitivism, but the other two only overlap somewhat with Thomson's « connectionism » and « embodied dynamicism ».

To Lucy Suchman (1987) and her followers, the term « situated » expressed a need to take the context into account. So does of course the term « embodiment », since our own body is the primary context of all our actions. « Embodiment » is no doubt a more precise term than « context », and perhaps « situadedness » can be made to be that too, but then it has to be specifically defined. In any case, even if « situated » and « embodied cognition » are fashionable terms at present, mainstream cognitive science still does not seem to take them in the direction of consciousness studies. The body which forms the context is not the body as lived, that is, as a meaning, but the body as studied in the neurosciences. Lakoff, Johnson, Rohrer, and their likes today form the core of what is meant by mainstream cognitive science. Although their work is extremely confused and contradictory (as shown most clearly by Haser 2005), and even though it contains superficial references to part of the phenomenological tradition, a close reading of, in particular, their most recent publications, shows that in actual fact, they are back at a conception identical in practice to that of classical cognitive science, with the brain being substituted for the computer. As soon as they get down to business, the body they are talking about is reduced to the neurons and synapses of the brain. Thus, embodiment, in this tradition is certainly not part of context. This is also true if their work is interpreted in terms of the kind of influence they have had.

Another related problem derives from the term « cognitive » as such, as is appears in the name of the enterprise. In the traditional discipline of cognitive psychology, and in the psychology of development, as, for instance, in the Piaget tradition, the term « cognitive » has a rather clear, well circumscribed meaning, being opposed, notably, to perception, unconscious processes, and probably empathy in most senses of the term. At least prototypically, or as a goal state, it involves rational operations, such as those that are characteristic of argumentation or problem solving. Although I am not aware of any explicit definition of the term within cognitive science, it is clear that the term « cognitive » here has taken on a much vaster, or much more unclear, meaning : originally, it corresponded to everything which could be simulated by a « cognitive device » such as a computer, and nowadays, it appears to stand for anything which can be localized in the brain. According to the « language of thought » hypothesis (first formulated by Fodor), even categorical perception and other elementary perceptual operations are based on cognition. Contemporary representatives of cognitive sciences such as Lakoff and Johnson would seem to claim that also thinking in a more traditional sense might be reduced to very simple operations, in which case « cognitive science » becomes a misnomer.

If meta-analysis consists, as s Bouissac (1999a, 4) of synthesising a great amount of scientific publications form different fields, cognitive science, by definition, has been better at this than semiotics, because it is characterized by the confluence of various earlier research traditions, whereas semiotics has too long been hampered by the autonomy postulate, taken over from Sassurean and Chomskyan linguistics.

Unlike most of the venerable semiotic tradition, I have always argued against the autonomy postulate, basing my own work to a large measure on an interpretation of experimental results (most notably in Sonesson 1989). In that sense, without using the term, I consider myself to be one of the initiators of cognitive semiotics. However, in some respects, scholars such as René Lindekens and Martin Krampen, who already in the heyday of structuralism set up their own experimental studies, basing themselves on semiotic models, may have even more claim to that title. What cognitive science needs, however, is to take into account even more research traditions, one of which is no doubt semiotics. However, meta-analysis taking a semiotic as well as a cognitive point of view might perhaps better be called semiotics. In the end, there may be no meaning without cognition, and no cognition without meaning, at least given the wide definition of cognition characteristic of cognitive science. It might perhaps be said that semiotics differs from cognitive science simply by putting the emphasis on meaning rather than cognition.

3.2. *Cognitive Semiotics as a New Paradigm*

Cognitive semiotics — or, perhaps better, semiotic cognitive science, as Terrence Deacon has suggested (only orally, I believe) —, which aims to bring together the knowledge base and models of cognitive science and semiotics, seems to have been invented several times over, probably because it is needed. What seems to be lacking, most of the time, in semiotics, is real empirical research. What is severely missing in cognitive science is a conception of meaning.

The kind of cognitive science with which I here would like to organize an encounter is mainly the brand whose real epistemological horizon is phenomenology, in its classical Husserlean form as well as in its recent versions within consciousness studies — including Searle, whose version of the philosophy of mind is to a large extent either crypto-phenomenological or a parallel development arriving at the same general conclusions[6]. But it is also the kind of cognitive science which continues the tradition of cognitive psychology from Bartlett to Neisser. It is the kind of cognitive science which also relies on experiment.

Semiotics would have nothing to offer cognitive science, if it were only a model or a method, or a philosophical standpoint. Above, I have argued that semiotics cannot be considered to be some kind of method, a model, a particular philosophical tradition, or even an « interdisciplinary perspective », whatever that may mean ; nor is it simply, in Paul Bouissac's (1999) term, a « meta-analysis » ; but it must be taken to be a science in its own right. The most obvious reason for this is, as we saw, that semiotics, if it is not erroneously identified with French structuralism, can be seen to have been using many different models and methods, as well as being practiced from different philosophical points of view. And it is not simply a « meta-

6. Interestingly, Smith (2007) counts Searle among the West coast phenomenologists of the US, although Searle himself never mentions Husserl (or practically any other thinker but himself).

analysis » or some other kind of « interdisciplinary perspective », because that does not tell us anything about its originality. It is interdisciplinary and meta-analytical with a twist, because it takes meaning as its perspective on the world.

On the other hand, there have recently been some encouraging developments within cognitive science which, no doubt with some exaggeration, may be qualified as a « semiotic turn » : an interest in meaning as such, in particular as it has developed, ontogenetically and, in particular, phylogenetically, in the human species and, to some extent, in other animals and animal-like machines. Terrence Deacon (1997) is a researcher in neuroscience whose work has been particularly acclaimed within cognitive science. Yet he has chosen to express some of his main arguments in a terminology taken over from Peirce, who is perhaps the principal cultural hero of semiotics[7]. Not only Deacon, both other scholars interested in the specificity of human nature now put their emphasis on the concept of sign (which they normally term « symbol », using this word is a sense in which we will not employ it here). This is true, in a very general sense, of Donald's (1991) stages of episodic, mimetic, mythic and theoretical culture. It seems to apply even more to Tomasello (1999), less, in the end, because of his epigraphs taken from classical semioticians such as Peirce and Mead as well as Bakhtin and Vygotsky, than because of the general thrust of his analysis, which consists in separating true instances of interpreting actions as intentional from those which may merely appear to be such. Building on the aforementioned works, Jordan Zlatev (2002, 2003) is explicitly concerned with the conditions for the emergence of higher levels of meaning involving « mimesis » and language, from more basic ones, characteristic of all biological systems (life forms), such as « cues » and « associations ».

Interestingly, there has also been an attempt at a true « cognitive science turn » in semiotics, most clearly represented by Thomas Daddesio (1995), who has however not created any true following. Daddesio does try to absorb the empirical knowledge base of cognitive science into semiotics, and he does seem to side with the consciousness studies strand in cognitive science, at least in some passages, though he mistakes Lakoff & Johnson for its representatives. His main argument for having recourse to cognitive science, however, seems somewhat confused to me : when he criticizes semiotics for leaving out mental concepts, he puts on the same level the physicalist reductionism of behaviourism and the recognition, on the part of the tradition of Saussure, Cassirer, Husserl, the Prague school, and others, that there is also a third level of meaning, the social one — which does not exclude the mental world as its mode of access[8]. The latter, contrary to the former, makes use of

7. Without trying in any way to diminish Deacon's contribution — in fact, I find him very convincing whenever he is not having recourse to semiotic terminology —, I have earlier expressed serious misgivings about his way of using Peircean terms, because this serves to obscure both the central issues of semiotics, and those introduced by Deacon (Cf. Sonesson 2006).

8. I am of course simplifying the issue : thus, there is a notable ambiguity in the work of Saussure between a social and an outright formalist interpretation.

semiosis in the most central sense of the term : the intersubjective structures which make meaning possible). In many other ways, however, Daddesio's contribution has been undeservedly neglected. In fact, he is of course quite right in emphasizing the correlation of intersubjective structures (language as Saussurean *langue*) and subjective access (language as « competence », not in the sense of Chomsky but in that that of psycholinguistics). In meaning and cognition (in the very general sense of cognitive science) are connected, than semiotics and cognitive science, as we suggested above, may simply be different emphasis attributed to the same field of study.

Daddesio would thus seem to associate semiotics with a particular philosophical standpoint. But this is a point of view which cannot be sustained. As I agued above against Eco (1988, 323ff) the fact of there being different semiotical points of view can hardly be taken to demonstrate that semiotics is a particular branch of philosophy ; for, at the very least, this would show that semiotics is a class of different philosophical and/or scientific activities. However, as we saw above, it would be even more natural to conclude that, just as sociology, psychology, archaeology, literary history, and so on, semiotics can be practiced from the point of view of different philosophical conceptions. Thus, there may be a structuralist semiotics, a nominalist semiotics, a phenomenological semiotics, and so on — just as there may be, for instance, a processural and a post-processural archaeology, a positivist and a post-modernist art history, and so on. The kind of semiotics which I propose, which would permit us to organize an encounter with cognitive science of the consciousness studies brand, in particular, is a decidedly phenomenological and empirical semiotics.

Where semiotics puts the emphasis on meaning, cognitive science, as we have seen, centres its attention on cognition (however widely redefined). However, by using such a term as cognitive semiotics, I am clearly implying that semiotics it not just any tradition worthy of taking into account in a reformed cognitive science. Such a term clearly involves taking for granted that meaning is the primary issue of human beings and, beyond that, of all life-forms. From the point of view of semiotics, cognitive semiotics is rather a perspective from which semiotics may be elaborated. Without semiotics, cognitive science is not complete.

But even though general semiotics must feature meta-analysis in an essential way, it should not be viewed as simply a tradition within philosophy. As Peirce said, we have to get out of the philosophical soup shops. Let us now turn to consider some of philosophical residue left in the tureen.

3.3. *On Phenomenology and its Naturalization*

Just like (French) structuralism was semiotics with a particular epistemological slant, cognitive science so far often has been a study of cognition equipped with a particular epistemology. Basically, French structuralism was characterized by a positivistic conception of the world and of scientific method, taken over less from Saussure

than coming out the subsequent development of linguistics prior to the advent of Chomsky and forming the background of distributionalism and behaviourism. As all French intellectual fads at the time, Structuralism (in this sense) obviously also had to take Freud and Marx into account, which could only be done by tempering the positivist conception, or rather, concomitantly rendering it rigid and inoperant. Something which is less well-known, however, is that Structuralism, appearing on the French intellectual scene, also had to define itself in relation to (Husserlean) phenomenology, at least in its French, subjectivist, variety, known as Existentialism. At least the early work of such well-known French structuralists as Greimas, Barthes, and Foucault contains explicit phenomenological references. None of them really reflected on the epistemological incompatibility of phenomenology and positivism (though at least Foucault clearly marked his distances to phenomenology later). Some more recent semioticians, such as Jacques Fontanille and Jean Petitot, have later derived inspiration from the, although using is less as an epistemology than as a sources for inspiration. At the same time, however, semiotics generally has largely grown out of the structuralist straitjacket. This seems to leave it largely orphaned from an epistemological point of view.

From this point of view, cognitive science still seems to remain at the stage of structuralist semiotics. It is a meta-analysis still largely determined by the computer-metaphor, both as a way of constructing models, and (less) as a method of analysis known as simulation. No doubt, while early cognitive science was entirely dependent on the idea of the mind as a computer, functioning on the model of extant computer programs, recent decades has seen the advent of computer programs, called « neural networks », constructed so as to function as models of the mind, identified with the brain, or at least as models of some aspects of brain functioning. This is perhaps the sense in which Pinker (1997 ; 2002) suggests that the idea of the mind as computation is wider than the « computer metaphor ». At least for some thinkers within this tradition, this has prompted the question of how the mind relates to the brain, or, in other terms, the problem of explaining the « personal level » from the « subpersonal level ». Some neurologists within the cognitive science framework have seen the necessity of accounting for « qualia », i.e. the mind as experienced by a subject (Edelman & Tonini 2000), and philosophers operating within the same frames have tried to map common-sense psychology to brain functioning, often in terms of computer models (Bermúdez 2005). This should really bring cognitive science closer to phenomenology, even though such as rapprochement has only been suggested in rare instances so far (Gallagher 2005 ; Thompson 2007, Zahavi 2005). The lack of input from phenomenology and other philosophical traditions current during the turn of the 19th century is clearly apparent in the discussion between « simulation theory » and « theory theory » concerning the relation between Ego and Alter (strange to say, even in Gallagher 2005)[9].

9. For a discussion of this tradition, which is useful even for those who are not able to agree with the Heideggeran conclusions (curious in this author), see Gurwitsch 1977 (written in 1931).

The task of phenomenology, as Husserl saw it, was to explain the possibility of human beings having knowledge of the world ; as a philosophical endeavour, phenomenology is about the way the world of our experience is « constituted ». As a contrast, psychology is not about the world, but about the subject experiencing the world. However, every finding in phenomenological philosophy, Husserl claims, has a parallel in phenomenological psychology, which thus could be considered a tradition within psychological science (cf. Husserl 1962 ; Gurwitsch 1974). If consciousness is a relation connecting the subject and the world, then phenomenology is concerned with the objective pole and psychology is about the subjective one. It is often forgotten that Husserl not only inspired but also himself was inspired by the Gestalt psychologists. Close followers of Husserl such as, most notably, Gurwitsch (1957, 1966) and Alfred Schütz (1967) were as much involved with phenomenological psychology as with philosophy and discussed the findings not only of the psychology of perception but of contemporary contributors to neurobiology such as Gelb and Goldstein. Also the Maurice Merleau-Ponty (1942 ; 1945), in his early writings, as well as in his seminars (1964)was, in this respect, an exponent of phenomenological psychology.

Being a neurologist, Gerald Edelman (1992) clearly does not discover the body from the horizon of consciousness, like a phenomenologist, but quite the opposite, he implies that the mind cannot be divorced from the body. In a sense, this is hardly controversial : unlike those hypothetical angels postulated by Max Scheler, human beings can only boast a mind as long as they have a body. But, if this is true in the order of existence, it is not necessarily so from the point of view of investigation. After all, Brentano (1885) did not use a scalpel, much less fMRI, to discover the property of intentionality (in the sense of directedness), which Edelman recognizes as an irreducible characteristic of consciousness ; nor did James (1890) find any of those « Jamesian properties » of consciousness repeatedly mentioned by Edelman in such a way. Indeed, far from being « a deliberately non-scientific set of reflections on consciousness and existence » (Edelman 1992, 159), phenomenology started out from the fact of intentionality and attempted to probe ever deeper into its ramifications, in order to rediscover and amplify those very Jamesian properties of consciousness mentioned by Edelman. Husserl and Gurwitsch may have been wrong to think of phenomenology as a discipline completely separate from biology and psychology, but the relative disconnection of phenomenological reflections, like those of Brentano and James, from biological knowledge has no doubt borne rich intellectual fruit[10]. If « a biologically based theory of mind » can in some respects « invigorate » phenomenology, the opposite is certainly just as true.

It is, first of all, phenomenology in the sense of phenomenological psychology which is of relevance here : it is in this sense that I think that, together with semiotics and cognitive science, phenomenology should participate in the confluence of

10. According to Steinbock (1995), late in life, when taking a non-Cartesian way to phenmenology, Husserl actually preconized the use of knowledge stemming from the positive sciences.

research traditions making up cognitive semiotics. In the second place, however, phenomenology as a philosophical, and more specifically epistemological, stance may have its part to play. What would it mean for phenomenology, in any of these senses, to be « naturalized », as Petitot (this volume and 1999) claims it should be ? Phenomenological psychology is already part of the natural world, in the Husserlean sense of the term ; and phenomenological philosophy, in one sense, cannot be naturalized, without ceasing to be an epistemological stance ; while in another sense, it was already naturalized in Husserl's late work putting the world before the ego and reducing it all to « transcendental intersubjectivity » (Cf. Steinbock 1995). In other terms, this means starting from the Lifeworld. This common sense world from which all analysis of meaning must start out was characterized by Husserl as the Lifeworld, paraphrased by the later phenomenologist Alfred Schütz as the world taken for granted. The Lifeworld, in this sense, must comprise both what, in recent cognitive science, is known as « naive physics » (what we, as members of the human race, not as students of the natural sciences, believe about the physical world) and « common sense psychology » (what we believe about ourselves other persons). The psychologist James Gibson, who sometimes repeated Husserl's very words in describing what he called « ecological psychology » (what we must take for granted about the environment in order to be able to perceive the world as we do), is more obviously concerned with the naive physics parts. With his concept of « ecological physics », Gibson certainly brought further the « naturalization » of phenomenology.

What is really meant by « naturalization » of phenomenology, as Petitot's (1999) edited volume makes abundantly clear, is the substitution of experimental, including neuroscientific, methods for those « natural » methods preconized by Husserl. Gibson, of course, also « naturalized » phenomenology in this sense. Another case in point could be Sven Arvidson's (2006) attempt to show the relevance to experimental studies of attention of the phenomenologically derived categories of theme, thematic field (which Arvidson calls contexts), and margin, which according to Gurwitsch divides any possible field of consciousness, perhaps more adequately characterized by Arvidson as the sphere of attention. Interestingly, he does so in order to show the importance of phenomenology to cognitive science (and thus, even more, I would argue, to cognitive semiotics). The thematic field, according to Gurwitsch, is that part of what is present to consciousness which is connected to the theme of attention in an intrinsic way (itself, as becomes clear in Arvidson's book, a notion which needs elucidation), while the margin is all that is simply co-present (notably the stream of consciousness as a whole in time, the body of the subject, and the world of perception) without being connected to the theme. Arvidson is quite right in claiming that this is an important dimension of consciousness which is neglected in empirical studies, but when he claims that this division is either implicitly present in experimental studies, or would explain their findings better, he is much less convincing. In fact, the experimental studies that he

quotes seem to be concerned with other aspects of consciousness, which are at least not sufficiently explained by Gurwitsch's division. Indeed, he often seems to take for granted that « context » (which is Arvidson's terms for Gurwitsch's thematic field) is used in the same sense in the experiments by psychologists ignorant of Gurwitsch's work. This goes a long way to show that, if you want experiments to tell us anything about phenomenological (and/or semiotical) notions, you have to design your own experiments.

More direct attempt to harness phenomenology into experimental studies is found in the work of Varela, Gallagher and Thompson. In the case of Varela's neurophenomenology, the subjects undergoing the experimental procedure are trained to use the phenomenological observational techniques on themselves. What Gallagher calls « front-loaded phenomenology » (which could more properly by called phenomenologically inspired experimental studies) derives inspiration from Husserl's work and that of other phenomenologists, in order to design experiments. But rather little seems to have been done along these lines so far.

Gallagher & Zahavi (2008, 28ff) lists another approach to the « naturalization » of phenomenology, using a formal language akin to mathematics, just as in the natural sciences. It is not clear to me why formalization, as such, should amount to « naturalization ». The first example given, Eduard Marbach (1993) does not seem to fit this description. Apart from the fact that Marbach's formal is rather some kind of pseudo-logistics, there is nothing in his book which suggests he does not intend this to be non-naturalized phenomenology. It is true that Marbach (2005 ; 2007) has elsewhere suggested some rapprochements between phenomenology and ideas derived from cognitive science, but in so doing he has always taken pains to point out that the classical procedure of phenomenology are indispensable for our understanding of the experiments, criticising Dennett's notion of heterophenomenology on the way. The second example, however, is the Centre de Recherche en Epistémologie Appliquée, an interdisciplinary group which includes Jean Petitot, and which explicitly pretends to integrate phenomenology into the natural sciences by translating it into mathematical language. There is nothing wrong with using mathematics (or logic) as a metalanguage for phenomenology. It does not really amount to a « naturalization », at least if the explicit aim is not to make it similar to the natural sciences. But such a procedure cannot substitute for the phenomenological operations which extrat the meaning of consciousness. If it does, we will have, not a « naturalization », but a de-naturalization, in quite a different sense, of the phenomenological method. Indeed, Husserl (1954) famously warned us for taking the mathematization of nature inaugurated by Galileo to by anything else than at « cloth of ideas » cast upon nature. We can throw another (or the same) « cloth of ideas » upon consciousness and meaning. But just like the « cloth of ideas » covering nature, the one covering meaning has to be reanimated by real acts of consciousness.

4. Semiosis with and without Signs

We have seen that, while some of the authors in this volume take the comparison of their discipline to semiotics to amount to an application of the sign concept, others claim that the notion of sign has long since been superseded. Perhaps this is because the sign concept, in semiotics, is notoriously ill-defined(Sonesson 1989 ; 2006 ; 2007a ; 2010b). Saussure said the sign had two parts, while Peirce claimed is has three. But we do not know if there is a real contradiction between these two proposal, since none of them said which properties something should have to qualify as one of these parts, nor what kind of relation should obtain between them. It is true that Saussure took the relationship between the two parts to be basically convention (« arbitrary »), and Peirce thought one of the interrelations could be either iconic, indexical, or symbolic : but these are qualifications of a relationship which is itself not defined. Eraly (this volume), inspired by speech act philosophy, and notably Paul Grice's notion of « non-natural meanings », wants to limit the sign to involving meaning conveyed by one person to another. But again, this does no tell us what the relationship is that is qualified differently by « natural » and « non-natural meaning ».

Let us decide to call the process by means of which meaning is conveyed from somebody or something to someone, using a Peircean term, semiosis. We can then ask whether all semiosis takes place by means of signs, or none does, or if perhaps some kinds of semiosis involve signs and others do not. But first we have to decide what a sign is. We should follow « the ethics of terminology » characterised by Peirce (although he himself was very bad at following it) : we should not introduce a term which conflict with earlier usage. Let us then consider what is called a sign in ordinary language. An example of a sign which would not be rejected by anybody (except by those who think there are no signs at all) is the word. We should not be led astray be all to specific properties of the word, such as conventionality and double articulation. Instead, we should look for higher-order properties which might more easily be generalized to other phenomena which are signs but not words, at the same time that it cannot be generalized to everything carrying meaning.

First of all, the two things involved in the sign function must be discernibly separate. I think Eraly (this volume) is quite wrong in enlisting Saussure's support for the idea that expression and content are one and the same. To say that they constitute the two sides of a sheet of paper certainly is to suggest an intimate connection ; but at the same time, it also says that there are two sides. Saussure did not use the Mobius ring. In any case, Saussure was not very clear about this. Jean Piaget (1945 ; 1967 ; 1970), in the other hand, who took his inspiration from Saussure in this respect, insisted that there must be a *differentiation* between the two terms. Intuitively, this means that there must be an awareness of one being different from the other. I have suggested elsewhere that this can be specified(Sonesson 2006 ; 2007a ; 2010b). On the one hand, there should not be any continuity between

the two items. In perception, each part perceived suggest another part and even a whole, but the limits between these parts change continuously. In an indexical sign, on the other hand, we see a part and understand that it stands for the whole, and the first is quite separate from the second. In the second place, one item should be of a different kind from the other. Looking in a mirror, you will only treat it as a sign, to the extent that you understand that it is not a double of yourself. Indeed, the ape or the child who tries to eat the picture of a banana is unable to differentiate the two kinds. As these examples show, pictures, including, mirror image, also fulfil the criteria of differentiation.

The second criterion for the sign function is the double asymmetry in the relationship between the two things involved. One of the things, called expression, is directly experienced but it is not in focus. At the same time, the other thing, the content, is only indirectly experienced while being the theme of the act of consciousness. This criterion goes back to Husserl(1913, II:1, 23ff; 1939, 174ff; 1950, 238ff), although it might have been most clearly formulated by Thomas Luckman (1980). As I have argued elsewhere, this is also a criterion which is realised by pictures as well as by words(Sonesson 1989; 2006; 2007a, b; 2010b; in press). The flat surface of differently disposed colour spots is the expression of which normally some three-dimensional constellation of objects is the content. To reverse that relationship, or even to have one three-dimensional object stand for another, you need to introduce some specific convention. Some such conventions, such as thoseof the shop window and the theatre scene, are fairly tacit.

- Thus we can minimally define the sign by the following properties :
- It contains (a least) two parts (expression and content) and is as a whole relatively independent of that for which it stands (the referent);
- These parts are differentiated, from the point of view of the subjects involved in the semiotic process, even though they may not be so objectively, i.e. in the common sense Lifeworld (except as signs forming part of that Lifeworld);
- There is a double asymmetry between the two parts, because one part, expression, is more directly experienced than the other;
- And because the other part, content, is more in focus than the other;
- The sign itself is subjectively differentiated from the referent, and the referent is more.

There seems to be wide agreement within semiotics, although with somewhat different slants, that the sign (also termed the semiotic function) is not comprehensive enough to delimit the field of semiotics : rather, the domain of semiotics is meaning (or « mediation »), in some wider, yet to be specified sense. As a general fact, meaning no doubt has something to do with organization and selection. In this sense, even perception carries meaning, for it organizes the world as perceived into wholes and parts, and it puts the emphasis on certain objects and properties to the detriment of others. However, since everything, or almost everything, may be endowed with meaning, any object whatsoever (or almost) may

enter into the domain of semiotics, but only in so far as it is studied from the point of view of its capacity for conveying meaning. The great task for semiotics will be to characterise those kinds of meaning which are not signs.

For a long time, I have been arguing for a distinction to be made between signs and other meanings for purely theoretical reasons (derived from what above called system analysis) ; but it clear now that such a distinction is also needed from the point of view of the study of human evolution and child development. This also is the first domain occupied by cognitive semiotics in our sense (Cf. Sonesson 2006 ; 2007a, b ; in press ; Persson 2008 ; Hribar, Call, & Sonesson, in press).

5. Out of the Pragmatic Waste-Basket

In this article, I have tried to articulate a somewhat complex stance : the world (or at least the Lifeworld) is continuous, and the scientific disciplines are discrete, and yet the division of the sciences is not entirely arbitrary. There are clusters of properties at the centre of interest of each domain, and even the points of view taken on the world are structured as a thematic field, with its theme, its neighbouring terms, and its margin. The world is indefinitely contextual, but the context is just another text[11]. In other words, each discipline has its central issues, but they cannot be treated out of context.

At least two issues having to do with the thematic field and/or the margin of the central semiotic themes are raised in the present volume. The first one is introduced by François Jost (this volume), and I will tentatively formulate it in the following way : semiotics is useful only if it is not too general, and not too specific. It is a curious fact of recent semiotic history, that most traditionswithin semiotics have tended to universalism. Peircean semiotics really only accounts for what is common to all kinds of semioses, and that is also true of French structuralism and the Greimas school. On the other hand, some specialities, such as semiotics of gesture, semiotics of the cinema, semiotics of theatre, narratology, and so on, soon crystallized into independent endeavours. Studying television, Jost feels pressed from above, the universalists, but also from below, or perhaps rather the side, those taking cinema, and in fact the particular case of classical Hollywood cinema, to be the prototype (or rather the stereotype) of all moving images. I have often said (and perhaps I got that from someone) that semiotics must be about both the similarities and the differences between different semiotic resources (Sonesson 1989 ; 2009 ; 2010b). The part about similarities re-joins the Universalist strand. What is said about differences, on the other hand, suggests that, while retaining its contact to general semiotic theory, specialities such as the semiotics of the moving image should also take into account the differences between such images, from the point of view of their mode of construction, their channel of circulation, and their

11. Two theses from my dissertation (Sonesson 1978), which still seem to be relevant.

socially intended purpose. In the end, the whole point of semiotics is lost, if we do not attend to the differences between semiotic resources as well as the universals they manifest.

Some parts of Jost's article, and some aspects of my discussion above, already bring us implicitly to the second issue : the relation of semiosis to society, and, thus, the relation of semiotics to sociology. Dadessio, as we saw, pinpointed one of the transcendences which have to be integrated into semiotic immanence, the subject, or the mind. The other one is no doubt society.Unfortunately, Dadessio confuses the inclusion of society with the exclusion of the mind, behaviourism and social semiotics. Others have however already insisted on the mostly social character of semiosis. In spite of his formalism, Saussure also said that semiotics (his semiology) should be a part of social psychology. The Prague school argued for the foundation of mostly semiosis on social structures. The Tartu school took up the relay. Vygotsky, besides evolution and development, singled out socio-cultural history. Many contemporary scholars inspired by Vygotsky's example, such as James Wertch, Chris Sinha, and Jaan Vasinger, have continued in that vein. This is an important part of semiotics, which have been somewhat neglected by professional semioticians.

Instead, Eraly (this volume) would like to have recourse to pragmatics, which, from the authors he quotes, would seem to be the same thing as linguistic philosophy. Without denying that some inspiration may be found in these works, I think it is an error to rely too heavily on pragmatics (Cf. Sonesson 1978). When I said above that each discipline has its central issues, but that they cannot be treated out of context, that may sound much like pragmatics, but it is not. Pragmatics is the idea that language is always at the centre, and everything else is supplementary or ancillary. It ensures that only language is properly studied, and the rest is left as it is. The result is, in Yeshoua Bin-Hillel's work, a pragmatic waste-basked. A semiotic approach, in my view, would instead permit the focus, and thus the environing thematic field, to shift from language to gesture or pictures, and as so on.

In the second place, pragmatics as linguistic philosophy is not, contrary to Eraly's (this volume) intention, a socially inspired view of semiosis (Cf. Sonesson 1999; 2007a, b). Like most of Anglo-Saxon philosophy, linguistic philosophy is very much cantered on the lone individual. What Austin, Grice, Searle and the others are involved with is the speaker and his intentions. Searle, it is true, has come a long way from his beginnings as a speech act theorist. But even the « we intentionality » of his recent works seems essentially wedded to an individualist view of the world. This is in accordance with Eraly's view of society, as made up simply of interacting individuals.Such a view would seem to correspond to society as Saussure's « parole », inspired, it is often said, by Gabriel Tarde's idea of society as conversation. But there is something more to society. If Sassure's « langue » derived from Durkheim, then is has to do with society as something outside of the individuals and putting restraints on them. Cognitive science has rediscovered

this kind of society under the name of « distributed cognition ».While this term may seem to be ambiguous between the Durkheim and the Tarde idea of society, Salomon (1997) has reintroduced the distinction between the kind of thinking done by people in conjunction and partnership with others and that which takes occurs with the help of culturally provided tools and implements, such a calculators or grocery lists. Indeed, the first kind, which he calls shared cognition, is exemplified by conversation where there is a constant change of cognition based on the other person's responses. The second kind is called off-loading. One would do well to distinguish also a third kind, the system of language, the systems of arithmetic, the system of writing, and so on, which make the second kind of objects possible. These are the kind of socially organized meanings recognized by Durkheim and Halbwachs, as well as by Husserl and Cassirer. Some aspects of this idea (but not the social aspects)reappear in Deacon's « semiotic constraints ». (Cf. Sonesson 1999 ; 2007a, b).

The idea of society as (also) being a set up constraints would seem to fit well with the idea of the social contract, prefigured in the contract of the Greimasean deep structure, as well as in the autobiographic pact. But we have of course long known that the social contract is a fiction. There never was a consensus to obey Leviathan. Under these circumstances, it is understandable for Jost (this volume) to suggest the promise as a better model. But a promise is also a social construct, with the difference that is presupposes social normativity, instead of creating it. In some societies, such as Europe, a promise is really meant to create an obligation to which the one pronouncing the promise is bound. In many Non-occidental societies, the promise does not have any time perspective at all ; it rather underlays the general rule of being as nice and as agreeable as possible to somebody at the given moment at which the promise is pronounced. These are real world difference not taken into account by the pragmatics of Austinor Searle. Perhaps the « promises » of the media with which Jost is concerned are really like these latter kinds of promises. And even better description is no doubt that which Jost quotes as originally ascribed to publicity : that it is really monological, but has an appearance of being dialogical.

But this cannot account for all of social normativity, which starts out, even today, well before the first media experience, in the crib. I think here we will have to return to the inspiration of the Prague school, which described norms as being of all kinds, from the simple custom to the rule of law and everything in between.

6. Summary and Conclusions

In this essay, I have been exploring the articles assembled in the present issue of *Signata*, dedicated to the relations between semiotics and other disciplines, and I have taken up some of the leads suggested in these articles. The central theme indicated, explicitly or not, by many of the contributions to this issue turned out to be the relationship between semiotics and cognitive science. In order to make ready

for this discussion, I considered what kind of endeavour semiotics might be : since it is certainly not a model, a method, a philosophy, or just any interdisciplinary approach, it must be a discipline or, taking away the social foundation, a research tradition. This insight prepared us for examining the differences and similarities between semiotics and cognitive science. Basically, I have suggested that semiotics and cognitive science would be better off working together, semiotics furnishing some of the basic concepts, and cognitive science the empirical approach. Moreover, I have discussed the part played by the sign concept in semiotics, on which opposing stances were taken in the articles appearing in the present issue. Finally, inspired in some of the articles, I also contemplated the role of society, and thus of sociology, in semiotics.

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