

The View from Husserl's Lectern

Considerations on the Role of Phenomenology in Cognitive Semiotics

Göran Sonesson¹

The aim of this paper is to consider in what way semiotics, cognitive science, and phenomenology, which stem from different traditions that have only rarely been known to intermingle, can enter harmoniously into a common research paradigm, phenomenological cognitive semiotics, to which each one of them has a specific contribution to make. In the first part of the paper, the relationship between (traditional) cognitive science and semiotics is elucidated from different points of view. The second part is concerned with methodology in general, and with the phenomenological method in particular, contrasting the conceptions of the latter propounded by Husserl and Peirce. I then go on to discuss some onto-epistemological consequences of opting for the phenomenological method. Finally, I argue that phenomenological cognitive semiotics might play a central part in the renewal of the Enlightenment project.

On Christmas Eve, Edmund Husserl presented his young friend [Jan Patočka] with a special gift. It was a desk-top lectern, crafted of light wood, which Husserl's own friend and mentor, Tomáš Masaryk, had in turn given him a lifetime earlier, in Leipzig in 1878. "And so," as Patočka would write yet a lifetime later, "I became the heir of a 'tradition.' T[he] Enlightenment tradition ..."

(Kohák, 1989)

1. Introduction

Given the bad press endured by Husserlean phenomenology during the last century in the Anglo-American cultural sphere, as well as in most of Northern Europe, it may seem paradoxical to associate phenomenology with the Enlightenment tradition. And yet Husserl (1954) took a clear stance in defending the Western cultural tradition in *Krisis*. In fact, what program could be more rationalist than the task Husserl set himself, which consists in rendering explicit to understanding even that which is customarily taken for granted.

To begin with, however, we have more strange bedfellows to contend with. Already the title of this article risks exposing me to the shameful designation of being an eclectic. On the contrary, I intend to show that semiotics, cognitive science, and phenomenology cannot only sleep in the same bed, but can also work together while being wide-awake.

The term *cognitive semiotics* has been proposed a number of times – by Daddesio (1996), by Margariños de Morentin on his webpage for about two decades, and by a number of others, including Per Aage Brandt and Jean-Marie Klinkenberg, even before that, at least in oral form. It is not clear that the term has always been used to cover the same thing: Here, at least, we will invoke it in order to endow semiotics with

1. Department of Semiotics & Centre for Cognitive Semiotics, Lund University.

a more empirical mode of operation, and to integrate the fundamental issues of meaning into the framework of the cognitive sciences, which seems particularly relevant nowadays when the latter have become preoccupied with the evolution and development of human beings in relation to other animals (Donald, 1991, 2001; Deacon, 1997). At the same time, there is now a branch of cognitive science that puts its emphasis on consciousness and which, more often than not, derives its inspiration from phenomenology (Thompson, 2007; Gallagher, 2005; Zlatev, 2008). It therefore seems that a phenomenologically inspired cognitive semiotics could be justified already by the common operation of transforming two separate intersections into the union of all three sets.

However, there are more solid reasons for proposing such a synthesis. In fact, many of these reasons have been given in my earlier work. I have been involved with phenomenological cognitive semiotics from the very start of my career without knowing it – or rather, without using the term. My basic position is still the same as the one I defended in my doctoral dissertation (Sonesson, 1978) and indeed in the programmatic article entitled “A Plea for Integral Linguistics” (Sonesson, 1979): that theoretical linguistics requires a general semiotic framework, and that an integrative semiotic theory can only be built on the basis of the phenomenological method in combination with empirical research. In this respect, I was, and still am, less a follower of Husserl than of his direct disciple Aron Gurwitsch, who also strived to take empirical research and existing psychological theories into account, but always confronting them with results of phenomenological reflection. In fact, however, even Husserl himself incorporated the findings and theories of Gestalt psychology into his discussion.²

The phenomenological approach in the Husserlean sense amounts to the attempt to render explicit the structuring present in the field of consciousness. After Husserl, of course, there is hardly any way of doing pure phenomenology, in the sense of remaining alone with the phenomena themselves, to the exclusion of all other kinds of company, because there are at least also Husserl’s writings to contend with. Furthermore, we will have to enter into a dialogue which is just as prolix with writings of quite different inspiration – as I did in my earlier work (Sonesson, 1989), and as Gurwitsch (1957) may have been the first to do, although Paul Ricœur, at least from his metaphor book onwards (Ricœur, 1975), must be considered the emblematic **trailblazer** of that approach.³ It is true, as Thompson (2007, p. 267ff) points out, that since Husserl’s time, there has been too much writing about Husserl, to the detriment of new applications of the phenomenological method. While I think it is necessary to return to the things themselves, as the phenomenological slogan goes—and I have been doing some original phenomenological work myself, in particular involving the sign and the

-
2. How this is theoretically feasible is of course an issue, but Husserl never discusses this, and even Gurwitsch’s attempt to account for it in terms of the difference between phenomenological philosophy and phenomenological psychology is hardly entirely satisfactory.
 3. For an introduction to phenomenology from the point of view of contemporary cognitive science, cf. Gallagher & Zahavi, 2008.

Bildbewusstsein, from Sonesson, 1989 onwards—I also believe the community of researchers (invoked by Husserl just as by Peirce) has to be involved in the process. This is to say that you are not really exclusively confronted with the phenomena, as Husserl at least claimed to be, but you are always engaged in a discussion with other thinkers – and with the world of our experience, as reflected in empirical studies, in the restricted sense usually given to this term, corresponding to third-person-perspective research (Zlatev, 2009). After all, this is what is meant by the notion of tradition.

Phenomenological reflection may thus also be enriched by the reading of other thinkers, who have thought about the same or similar phenomena. In my 1978 book, I was already very critical of French structuralism, but I was also rather sceptical about Peirce. In *Pictorial Concepts* (Sonesson, 1989), I derived much more inspiration from Peirce, and I have continued to do so more and more. But this has happened because I have become convinced that some parts of Peirce's work is actually very good phenomenology. Nevertheless, I still think it is quite arbitrary to decide that everything in the world of our experience pertains to three categories without clearly determining from what point of view, and without admitting that there may be more or fewer categories from other, equally valid vantage points. The proof of Peirce, like the proverbial pudding, is in the eating – that is, in phenomenological analysis. Actually, it is found in what Husserl termed *free variation in the imagination*. Once you state clearly what the principle underlying the three categories is, you can investigate which are its possible variations, and then you can find out whether there are three possibilities or more—or less.

Because of the common misapprehension of phenomenology in Anglo-American and North-European culture, it is often supposed that by basing oneself on phenomenology, you take your departure in common sense. This may be true of ethnomethodology, which claims to take its origin in phenomenology (Garfinkel, 1967), but, in relation to Husserlean phenomenology, there is a fundamental misunderstanding in this interpretation. In one sense, phenomenology is quite the opposite of common sense. It directs our thinking to the kind of thinking done by common sense in order to go beyond it. However, phenomenology may not always be able to do this alone. That is why we need empirical research to discover new things. And we need the critical discussion of other theories. Contrary to what Husserl supposes, you may need such a discussion already in order to discover the kind of parameters to submit to variation in the imagination. This is something that I have recently been doing with respect to biosemiotics (Sonesson, 2006b, 2009; cf. Zlatev, 2009). In the process I have learnt new things from biosemiotics, but I have also discovered in which aspects biosemiotics (as much of Peircean theory) is at fault: in only seeing gray cats even in open daylight. In other words: in treating all kinds of meaning (and perhaps some things which are not even meanings because there is not subject to experience them) as signs, without attending to the differences.

In this paper, I will argue that the resolution of these problems is to be found in the combination of ideas from semiotics, cognitive science and phenomenology. I am very unsympathetic to the idea of taking over wholesale an entire framework, be it that of

Peirce, Husserl, or any other thinker. Rather than a scientific process, this would seem to resemble religious conversion. Although any scientific theory must of course be coherent, it has to be acquired piecemeal, each part being separately discussed and “experienced” from the first-person, second-person, and third-person perspectives (Zlatev, 2009). It should also be made clear that what I have adopted is a special domain of study corresponding to the combination of those domains presently occupied by cognitive science and semiotics, as well as the method known as phenomenology, not any specific theories already known in any of these domains, or derived from this method. In the following, I intend first to explore the domain of cognitive semiotics, and then consider the phenomenological method as such and in relation to the domain referred to, which will also allow me to say something about the onto-epistemological presuppositions of these choices. Finally, I will return to the relevance of the Enlightenment tradition today.

2. The Construction of Cognitive Semiotics

Cognitive semiotics, as it is here understood, aims to bring together the knowledge base and models of cognitive science and semiotics.⁴ It seems to have been invented several times over, probably because it is needed. It is needed, first of all, because it is hardly possible to talk about the human mind without also involving the specific ways human beings have of communicating with each other, and vice versa. This has to do with the peculiar intersubjective nature of the human Lifeworld, opposed in that respect to other animal *Umwelten* (cf. section 2.4). What is fundamentally missing in cognitive science is a conception of meaning. In cognitive science, phenomena endowed with meaning are either discussed without being treated as such, or they are not adequately described (see section 2.2). Within the branch of cognitive science concerned with consciousness (e.g., Thompson, 2007) meaning is certainly epitomized as a product of subjectivity, but it is not elucidated in its own right. On the other hand, what seems to be lacking in semiotics, is actual empirical research, in the sense of experiments and observations of relevant situations (cf. section 2.3). Furthermore, phenomenology is necessary, in order to conceive an adequate semiotic theory, as well as in the task of bringing together cognitive science and semiotics. Without the elucidation offered by the phenomenological method, semiotics and cognitive science risk indeed to end up forming an eclectic patchwork.

2.1 Semiotics on Its Own

It still seems to be impossible to establish a consensus among all semioticians on what semiotics is all about; and many semioticians will not even care to define their discipline. It is understandable, then, that a semiotician such as Paul Bouissac (1999) may describe semiotics as being chiefly a kind of meta-analysis, and thus consisting “in reading through a large number of specialised scientific publications, selected

4. A better term may be *semiotic cognitive science*, which Deacon once used in a lecture, the date of which I cannot now pinpoint. But *cognitive semiotics* now seems to stand a better chance of being established as a notion.

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” (Bouissac, p. 4). This certainly accounts for a lot of what semioticians do, but it could also be said the cognitive sciences and many other interdisciplinary perspectives. The reading in question, and the ensuing acts of comparison and integration, must be made from some particular point of view. Indeed, it can even be argued that cognitive science, by definition, has been better at doing meta-analysis 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 Saussurean and Chomskyan linguistics, according to which semiotics, like Saussurean and Chomskyan linguistics, should not be tainted by any commerce with other disciplines.

However, if we attend less to definitions than to real research practice, and if we leave out those would-be semioticians who simply do not seem to be doing anything very new (those who merely go on doing art history, literary history, philosophy, and so on), it seems possible to isolate the smallest common denominators of the discipline (cf. Sonesson, 1996). The subject matter of semiotics, like those of psychology and sociology, does not exist separately somewhere “out there”: just like society and the mind, meaning is entangled into everything else, and is abstracted out from it, applying some particular standpoint, or, in other terms, a principle of relevance. The particular point of view of semiotics is to study the point of view itself, as Saussure (1973, see p. 23) once put it,⁵ or, in the words of the later Peirce, it is mediation, the fact of other things being presented to us in an indirect way (cf. Parmentier, 1985). In this sense, there is more to semiotics than signs. As is well-known, both Umberto Eco and the followers of Greimas would like to rid semiotics of the notion of sign altogether, whereas Peirceans continue to see signs everywhere. But one can argue that this is so because these schools have different definitions of the sign, which are either vague or not very explicit.

If semiotics is a science, we have to start out by explicating the notion of science as such. As a first approximation, one may want to say that a science is a particularly orderly and systematic fashion of describing and analyzing 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 the natural sciences, on the one hand, and the social and human sciences, on the other, which, following a traditional hermeneutical conception echoed by Eco (1985/1988, see p. 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 refers to unique occurrences; and that while, the first kind can be explained, the second kind may be understood. But there is

5. This is, as Prieto (1975a) has convincingly shown, the real meaning of the famous Saussurean saying that the point of view creates the object of linguistics, which, as observed by Sonesson (1989, p. 28), is extended to all other “sciences sémiologiques” by Saussure (1974, p. 47). Without referring to Vico (2004), Prieto here seems to take for granted Vico’s postulate, which is something that will be discussed later on in the text.

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. Rather, sciences may be defined either as being concerned with a particular domain of reality, or as applying a particular point of view to the whole of reality (cf. Sonesson, 2004).⁶ Thus, French studies are involved with French 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, 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 subject 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 needs to be 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 (or at least I hope not) chemical semiotics.

Semiotics, it was suggested above, is a science, the point of view of which may be applied to any phenomenon produced by human beings as well as by other animals. As such, it is concerned with the different forms and conformations given to the means through which animate beings take themselves to have access to “the world.” In studying these phenomena, semiotics should occupy the *standpoint* of human beings, or, when this is relevant, of some particular part of humankind – or, again, to the extent that this is possible, of the species involved. Indeed, as Saussure (1974, p. 47) 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, according to Saussure, without the result being the disappearance of the semiotic objects as such. Saussure voices this claim, because he wants to make the object of general linguistics (and the other semiological sciences) appear out of the background of the different sciences existing at his time which were involved with language. That the object of semiotics may disappear again is testified by the practice of most of contemporary cognitive science. However, Saussure’s claim should not be taken as a nominalist profession of faith. As shown by Prieto (see 1975a, p. 144; 1975b, p. 225f), Saussure’s

6. This seems to fit in very well with Peirce’s conception, according to which “the only natural lines of demarcation between nearly related sciences are the divisions between the social groups of devotees of these sciences” (CP 8.342), themselves determined by the kind of problems they are intent on resolving

phrase can, in the given context, only be interpreted as concerning the reconstruction of the point of view of the speakers. The task of semiotics is thus not to develop any particular philosophical position, but to construct a model of the users of these meanings in their on-going practice of the Lifeworld. We cannot, like the philosopher Nelson Goodman (1968), reject the folk notion of picture because of its incoherence, but must discover its peculiar systematicity. From a semiotic point of view, it does not matter whether the researcher favours a *nominalist* view of reality, or some other conception. It is the Lifeworld notion of life that we must reconstruct, and the Lifeworld notion is certainly not (purely) nominalist. Even a nominalist must somehow accept that concepts and ideas exist, in order to live and act as a member of human society, and a semiotic description of the thinking of a nominalist could not be phrased in nominalist terminology.

Nor do I think it makes much sense to claim, with Umberto Eco (1985/1988, p. 323ff) that, on the one hand, there are certain specific semiotic sciences, such as those which study the interpretative habits of events in verbal language, gestures, traffic signs, pictures, and so on; and, on the other hand, 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. Curiously, Eco even claims that the fact of there being different semiotic points of view demonstrates that semiotics is a philosophical activity; but, at the very least, this would show that semiotics is a variety of different philosophical and/or scientific activities. Actually, a more adequate conclusion would be that semiotics—just as sociology, psychology, archaeology, literary history, and so on—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 postmodern art history, and so on.

Generalizing from the case of linguistics, Prieto (1975a) takes it to follow that semiotics must be restricted to the knowledge shared by all users of the system. Pursuing the same analogy, we are bound to realize that it is necessary to descend at least one level of analysis below the level of which the user is usually aware in order to take account of the presuppositions underlying the use of the system. This is necessary in order to explain the workings of such operative, albeit tacit, knowledge that underlies the behavior constitutive of any system of signification. It goes without saying that this knowledge must, in principle, be accessible to consciousness, without which the phenomenologist, who is thrown upon his own ordinary human resources, would be unable to reach it (cf. Sonesson, 1989, p. 26ff; 2007).

Semiotics attends to all phenomena considered in their qualitative aspects rather than the quantitative ones, but it nevertheless aims at formulating rules and regularities, rather than being reduced to the interpretation of unique objects. This is to say that all semiotic sciences, including linguistics, are *nomothetic* sciences, concerned with generalities, not idiographic sciences, such as art history and most of the humanities, which take as their object an array of singular phenomena, the

common nature and connectedness of which they take for granted. Just like linguistics, as understood in the Saussurean tradition, but contrary to the natural sciences and the social sciences (according to most conceptions), semiotics is concerned with qualities, rather than quantities – that is, it is 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. Semiotics is not restricted to any single method, but uses a plurality of such, varying from the analysis of concrete texts (text analysis), to classical experimental technique, and imaginary variation reminiscent of the one found in philosophy (system analysis). Moreover, the construction of models is a peculiar feature of the semiotic standpoint, if it is compared to most of the humanities (which is not to say that these models must be taken over from linguistics, as is often believed). Indeed, semiotics differs from traditional approaches to *humanitas* in employing a model that guides its practitioners in their effort to bring about adequate analyses, instead of simply relying on the power of the *innocent eye*. Two very general categories of models could be taken to be the analytical and the synthetic ones, but it might be more to the point to observe that most real models have analytical and synthetic aspects. Science normally makes its analysis by means of synthesis, that is, a tentative synthesis, which may then have to be modified in the confrontation with the object, analysed.

In actual practice, however, there have been precious few experiments in semiotics. According to many exponents of contemporary semiotics (e.g., Greimas, 1970), semiotics is a pure, or autonomous, science, similar to structural linguistics (Itkonen, 1978). Other researchers, notably in the United States, tend to look upon semiotics as a meeting-place of many different sciences, a kind of interdisciplinary framework common to the humanities and the social sciences, including, by some accounts, biology and neurology. My approach is different from both those characterized above: I take the results of all disciplines involved with the same subject matter (i.e. meanings, signs, words, gestures, pictures, photographs, etc., as the case may be) to be relevant to semiotics, but only once they have been reviewed, redefined and complemented from a specifically semiotic viewpoint. 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). It is only in recent years, however, that have I been involved with the design of experiments myself. 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 be seen as precursors of experimental, and therefore at least in one sense, cognitive, semiotics. Using such methods, Lindekens (1971, see p. 178ff) showed that the interpretation of a photograph is changed according as it has been made more or less contrasted or nuanced in the process of development. Espe (1983a, 1983b), in a similar set-up, demonstrated interesting interactions between different factors, with the general result

that an identical photograph may carry very different affective import when being differently contrasted. Krampen (1991) used experimental methods in the study of children's drawings. In domains of semiotics which have developed into specialities of their own outside of semiotics, such as gesture studies, there has of course been much more experimental work, as there obviously has been in (psycho)linguistics. In general, however, this is an aspect in which semiotics has a lot to learn from the cognitive sciences, as well as from some of the sciences anterior to the cognitive synthesis, such as cognitive and perceptual psychology.

2.2 *The Three Ages of Cognitive Science*

It no longer makes sense to invoke cognitive science as a whole. Cognitive science can be practiced, and indeed has historically been practiced, from very different points of view. 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 taken to be no more than a set of calculations based on some snippets of code made by the human brain. Jerry Fodor's (1987) argument for the language of thought is the most explicit version of this point of view. 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.

In the second age of cognitive science, some researchers realized that human beings (as well as, on some interpretations, some computer programs) could not function outside of a human lifeworld and without taking their bearings from their outside bodily form. This brings us to the notion of situatedness, which has henceforth played an important role in cognitive science, and to the complementary notion of embodiment. These notions served to bring ideas from phenomenology and other traditions involved with consciousness into the fold of cognitive science. Before this moment many phenomenologists and philosophers of consciousness – most famously Hubert Dreyfus (1992) and John Searle (1997, 1999) – were violently opposed to cognitive science, a fact that hindered any cross-fertilization. However, both situatedness and embodiment can be given—and have been given—other, more mechanistic, interpretations. The preoccupation with notions such as agency, intentions, consciousness, empathy, intersubjectivity, and so forth, remain atypical of cognitive science as a whole, though they are a major topics within consciousness studies, such as practised by Evan Thompson (2007), Shaun Gallagher (2005), Dan Zahavi (Gallagher & Zahavi, 2008), and a few others.⁷ In fact, these notions are

7. In Sonesson (2007), I took Varela, Thompson, & Rosch (1991) to task for having seriously misunderstood Husserl and attributing many of his real accomplishments to Merleau-Ponty; so it is interesting to note that in his new book, Thompson (2007) does not only assign a much more preponderant part to Husserl, but includes an appendix of *mea culpa* specifying the respects in which he and Varela were wrong about Husserl, having being basically misled by the interpretation proposed by Dreyfus.

anathema to much of cognitive science, both in its classical version and, in a more implicit and confused way, in what must still be described as mainstream cognitive science, associated with the work of Lakoff and Johnson (1999), Dennett, Fodor, etc.⁸

To Lucy Suchman (1987) and her followers, the term *situated* expressed a need to take context into account. This applies to embodiment as well, because our own body is the primary context of all our actions. *Embodiment* is a more precise term than *context* and perhaps *situatedness* can be defined more precisely too. 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. However, in the second tradition of cognitive science, the body which forms this context is not the body as lived, that is, as a meaning, but the physical body as studied in neuroscience. Lakoff, Johnson, and their followers today form the core of what is meant by mainstream cognitive science. Although their work is extremely confused and contradictory, which is testified most clearly by their different levels of embodiment, which are distinguished and then conflated (as shown most clearly by Zlatev, 2005, 2007), and by the incoherent attacks on Western philosophy (cf. 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 substituted for the computer. 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 equally 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 it 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, fuzzier 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 the first tradition of cognitive science thus reduced the mind to a

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

computer, the second tradition introduced a new kind of reductionism involving the brain, so it is only the third tradition that holds out some hope for an approach to meaning.

The kind of cognitive science with which I here would like to organize an encounter is that of the second tradition, that is, the brand whose real epistemological horizon is phenomenology, in its classical Husserlean form as well as in its recent versions within consciousness studies; and with 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.

2.3. *The Semiotic Turn in Cognitive Science and Vice-versa*

Like cognitive science, semiotics is often conceived as an interdisciplinary perspective that has occasionally gained the position of an independent discipline—no doubt less often than cognitive science. Curiously, it might be argued that cognitive science and semiotics cover more or less the same domain of knowledge; or rather, they take a very similar perspective on the world: both are concerned with the way in which the world described by the natural sciences appears to human beings and perhaps also to animals. Cognitive science (explicitly only in that of the third generation) puts the emphasis on the place of the appearance of this world, the mental domain and on its characteristic operation, consciousness, in its various manifestations; and semiotics insists on the transformations that the physical world suffers by being endowed with meaning.

Semiotics would have little to offer cognitive science if it were only a model or a method, or a philosophical standpoint. But as argued above, semiotics cannot be considered simply in these terms, nor is it simply a critique of ideology or, in Paul Bouissac's (1999) term, a *meta-analysis*. Semiotics must be taken to be a science in its own right (cf. Sonesson, 1992, 1996, 2004). The most obvious reason for this is that semiotics, if it is not erroneously identified with French structuralism, has been using many different models and methods, as well as being practiced from different philosophical points of view. Likewise, it is not simply a meta-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: Semiotics takes meaning as its perspective on the world. What this means, no doubt, will remain somewhat obscure until meaning has been phenomenologically elucidated (as in Sonesson, 2006a, in press a, in press b)

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, as, for instance, in the work of Greimas and his followers (cf. Greimas, 1970; Greimas & Courtès, 1979), and recent cognitive science has distanced itself from the notion of representation (Varela, Thompson, & Rosch, 1991). 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 computer simulation). These differences may partly explain why semiotics and cognitive science are rarely on speaking terms.

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: there has been a recent interest in meaning as such, in particular as it has developed ontogenetically and phylogenetically, in the human species and, to some extent, in other animals. 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.⁹ 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*). 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 so to Tomasello (1999), less 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 having a purpose from those which may merely appear to be of that kind. Building on such research Zlatev (2003, 2007, 2008) has explicitly investigated 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 turn in semiotics, most clearly represented by Daddesio (1995), who tries to absorb the empirical knowledge base of cognitive science into semiotics, siding in this respect with the third generation's way of dealing with consciousness, though he mistakes Lakoff and Johnson for its representatives. His main argument for having recourse to cognitive science, is that the study of signs and sign systems, privileged by semiotics, has to be complemented by investigations of the ways of having access to these signs, which are more properly studied by cognitive science. It is easy to agree with this idea. Unfortunately, however, Daddesio puts the physicalist reductionism of behaviorism characteristic of much of American semiotics on a par with the recognition, on the part of the tradition of Saussure, Cassirer, Husserl, the Prague school, and others, that there

9. 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, 2006b).

is also a third level of meaning, the social, intersubjective, one—which does not exclude the mental world, simply because it is a product of the interaction of many mental worlds. What in the first case is a clear case of denial, is in the second case merely neglect or even a lack of focus.¹⁰ Daddesio would seem to associate semiotics with a particular philosophical standpoint. But this is a point of view that cannot be sustained, as we saw above (2.1). No matter how deservedly different semioticians are faulted with neglecting the relationship between signs and meanings, on one hand, and the ways in which we may access to them, on the other, Daddesio has certainly pointed to an important domain of study which on the whole must be considered to be disregarded, both within semiotics and within cognitive science (as well as by predecessors to the latter within cognitive and genetic psychology): the correlation of signs and other artefacts endowed with meaning, on the one hand, and the modalities of the subject having access to them.

2.4 *The Need for Cognitive Semiotics*

In order to determine the importance of cognitive semiotics, it is useful to start out from Daddesio's main argument, both in the respect he may be argued to be right, and according to the criticism I have directed as his observation above. If we attend to the behaviorist strand in semiotics, Daddesio is right in emphasizing the importance of studying the relation between signs and meanings and the way in which they become available to us through consciousness. If, on the other hand, we attend to the other tradition in semiotics, which presents signs and meanings as being fundamentally intersubjective structures, then there is still the question involving the ways in which these structures come to be accessible to individual minds, and, in addition, the issue of the emergence of intersubjectivity as such looms large. In both cases, it would seem these problems are exacerbated as soon as the evolution and development of human beings and other animals become relevant to our pursuit.

It could be argued that the founding-fathers of semiotics have already attended to the relationship between signs and the way they are accessible to consciousness. Saussure, for instance, talked about semiotics (his semiology) as being part of social psychology, and he made numerous references to *social intercourse* (in English in the text). But that is about as far as Saussure's interest in these relationships goes. Peirce, of course, included mind in the definition of the sign. But, as is well-known, Peirce gave a very special meaning to the term *mind*, as evidenced by the fact that he thought it (or, at least, the *quasi-mind*, as he was wont to say) did not need to be wedded to any kind of consciousness at all. It is true, no doubt, that Peirce had a lot to say about themes that would usually be considered to be the business of psychology and cognitive science, as is thoroughly documented by Colapietro (1989). And yet, as Peirce neglects the specificity of consciousness, he is unable to elaborate on the relation between signs and the way we as animate beings have access to them. To be

10. 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.

more precise, he does not tell us anything about how the relation between consciousness and signs is different from other kinds of relations (notably those between different signs).¹¹

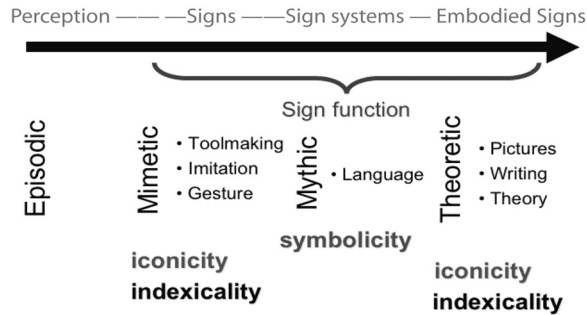
As noted above, interactions between subjects and signs become more topical than ever as soon as evolution and development enter the discussion. Contemporary studies of evolution suggest that not only human language, but also the capacity for using pictures, as well as many kinds of mimetic acts and indices, are (at least in their full, spontaneously developed form) uniquely human. It is clear that semiosis itself must be manifold and hierarchically structured, in ways not yet dreamt of in our philosophy. Merlin Donald (1991, 2001) has proposed an evolutionary scale (with analogies in child development explored by Nelson, 1996 & Zlatev, 2003), where the stages of episodic, mimetic, mythic and theoretic culture correspond to types of memory (Cf. Fig. 1.). According to this conception, non-human apes, which otherwise live in the immediate present, are already capable of *episodic* memory, which amounts to the representation of events in terms of their moment and place of occurrence. The first transition, which antedates language and remains intact at its loss (and which Donald identifies with *homo erectus*) brings about *mimetic* memory, which corresponds to such abilities as tool use, miming, imitation, coordinated hunting, a complex social structure and simple rituals. Only the second transition brings about language with its *semantic* memory, that is, a repertory of units, which can be combined. This kind of memory permits the creation of narratives, that is, mythologies, and thus a completely new way of representing reality.

Interestingly, Donald does not think development stops there, even though there are no more biological differences between human beings and other animals to take account of (however, the third transition obviously would not have been possible without the attainment of the three earlier stages). What Donald calls *theoretical culture* supposes the existence of external memory, that is, devices permitting the conservation and communication of knowledge outside human mind (although, in the end, it is of course only accessible to a human mind; cf. Sonesson, 2007). The first apparition of theoretical culture coincides with the invention of drawing. For the first time, knowledge may be stored externally to the organism. The bias having been shifted to visual perception, language is over the millennia transferred further to

11. This is certainly not to say that Peirce does not have an idea of how we have access to signs (as an anonymous reviewer reminded me). One of Peirce's most well-known metaphysical claims is that man is a sign (i.e. a symbol). Since human beings are themselves signs they can be attracted to signs, enter into sign communities, use signs, think in signs etc. (cf. CP 7.583). Indeed, Peirce observes in numerous of other ways that human beings and the world are of the same stock, notably when he assures us that we will end up discovering the truth in the long run (i.e. reach the final interpretant, cf. EP 502f). This is an interesting generalization of Giambattista Vico's hermeneutic postulate (cf. Vico, 2004), according to which we can understand other human beings and the works produced by them, that is, the subject matter of the human and social sciences, but not the objects studied by the natural sciences. Characteristically, Peirce denies this difference. But even supposing that we can make sense of the claim that human beings are signs, this does not tell us anything about the specificity of the relation between human beings (and notably consciousness) and signs as compared to the relations between two words and the like.

writing. It is this possibility of conserving information externally to the organism that later gives rise to science.

Figure 1: Donald's model of evolution related to the notion of sign function, as well as sign systems and embodied signs.



The diverse manifestations of Donald's second stage (mime, skill, imitation and gesture) are, in my view, (at least in part) iconic (based on similarity)—but for the most part they are *tokens* conforming to a *type*—members of a category—not yet signs. Somewhere in between mimesis and language the sign function arises (though Donald notes this only obliquely, mentioning the use of intentional systems of communication and the distinction of the referent). In fact, a lot seems to happen within the stage that Donald's calls mimesis, which is not accounted for, notably because Donald does not pause to consider the partial overlap with Piaget's semiotic function. We have to go from bodily acts as such which are not normally iconic to acts that are imitative and from direct forms of imitation to different kinds of representative imitation.¹² Finally, the fourth stages give rise to organism-independent artifacts, such as, notably, pictures and scale models—as well as writing and theories. Thus, with the advent of pictures, signs reach a post-linguistic stage, which is again iconic. Writing, on the contrary is largely symbolic. Theories, however, may also require an important iconic element, as Peirce has insisted, which is something that Stjernfelt (2007) has recently focused on in his interpretation of Peirce.

12. Zlatev (2007, 2009) has suggested a subdivision of the mimetic stage into proto-mimesis, dyadic mimesis, triadic mimesis and (on the borderline to the next stage) post-mimesis. Sonesson (in press b) discusses the relation between imitative acts that are not signs and those which are and the intermediate stage of imitating in order to learn.

Table 1: Donald's memory types analyzed in relation to the nature of accumulation

Type of memory	Type of accumulation	Type of embodiment
Episodic	Attention span (event in time/space)	—
Mimetic	Action sequence co-owned by <i>Ego</i> and <i>Alter</i>	Own body
Mythic	Transient artefact co-produced by <i>Ego</i> and <i>Alter</i>	In the interaction between <i>Ego</i> and <i>Alter</i>
Theoretic	Enduring artefact co-externalised by <i>Ego</i> and <i>Alter</i>	External in relation to <i>Ego</i> and <i>Alter</i>

Note: in the sense of Lotman et al., 1975; cf. Sonesson 2007

The stage preceding the attainment of the language capacity requires memory to be located in the subject's own body (see table 1). But, clearly, it can only function as memory to the extent that it is somehow separable from the body as such. The movement of the other must be seen as distinct from the body of the other in its specificity, so that it can be repeated by the self. This supposes a distinction between *token* and *type* (that is, relevance) preceding that of the sign function.

The stage following upon language supposes the sign to acquire a "body" of its own, that is, the ability to persist independently of human beings. Language only seems to require the presence of at least two human beings to exist: they somehow maintain it between themselves. But it is not enough for two persons to know about a picture for it to exist: there must be some kind of organism-independent artefact on which it is inscribed. The picture must be divorced from the bodies (and minds) of those making use of it. Writing is of course, by definition, the transposition of language to independent artifacts. The case of theory may be less obvious: why should not two persons be able to entertain a theory between them? As Husserl (1962) noted well before Donald, complex sign systems, such as mathematics and logic, only seem to function as such when given an existence independent of human organisms. In the case of pictures, Ivins (1953) has observed that it is their reproducibility (as in Floras, for instance) that makes them into scientific instruments. In their capacity of being permanent records, pictures are not, as art historians are wont to say, unavoidably unique, but, on the contrary, are destined for reproduction. Indeed, they permit repeated acts of perception, as do no earlier memory records. This is of course what is

known, mainly in Marxist literature, as the process of *reification*. As shown by Cassirer (1942, p. 113ff), this process, far from being only a “tragedy of culture,” is a prerequisite for (human) culture.

To understand the specificity of human culture, therefore, we need to explore the interplay of subjects and signs. This is at least one of the reasons why cognitive semiotics is needed.

3. From Methodology to Onto-epistemology

In the constellation of phenomenological cognitive semiotics, phenomenology, as I noted above, enters, not as a substantive domain, but as a method. Not to overburden our argument, let us define a method, in a way which is no doubt too simple, but is sufficient for our purpose, 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.

In the previous section, I argued that semiotics cannot be considered to be a method or a model, since, just as all other sciences, it makes use of 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 1960s and 1970s, but which has since lost its relevance in most quarters, although it survives in the Greimas school, which still has a big following in Latin America as well as in Southern Europe. It may rightly be said about French structuralism that it tried 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 I suggested above (in section 2), is not restricted to any single method, but is known to have used several kinds, such as text analysis, classical experimental techniques, system analysis, and text classification (cf. Sonesson 1992, 1996).¹³ Nor is semiotics necessarily dependant on a model 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

13. Bouissac (1999a, b) also talks about four ways of acquiring knowledge within semiotics and elsewhere, which partly correspond to my division: experiment and reasoning have obvious parallels, serendipity would for me be something occurring at certain moments within the other strategies, and meta-analysis is a special kind of system analyses, which was already mentioned in part I.

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 well on its way to the elaboration of its proper models (cf. Sonesson, 1992, 1993, 1994, 1996, 1998).

2.1 Phenomenology Within a Plurality of Methods

There is, however, another way of looking at different methods, which concerns their various modes of access to knowledge. Zlatev (2009, p. 179) has argued for a form of triangulation between methods that can be categorized on the basis of the type of perspective that the researcher takes to the “data”: First-person, Second-person, and Third-person methods (Cf. his table 1 reproduced here as table 2. Also cf. Thompson, 2008, pp. 303ff, 338ff; Gallagher & Zahavi, 2008, p. 13ff).¹⁴

Table 2: Examples of methods, grouped in terms of type of perspective, used in developing a synthetic cognitive semiotic theory

Perspective	Method	Appropriate for the study of
First-person	Conceptual analysis Phenomenological reduction Imaginative (eidetic) variation	Normative meanings, rules Perception Mental imagery
Second-person	Empathy Imaginative projection	Other persons (e.g. as in conversation analysis), “higher” animals
Third-person	Experimentation Brain imaging Computational modelling	Isolated behaviours (e.g. spatiotemporal utterances) Neural processes

Note: Reproduced from Zlatev, 2009

As should be obvious from Zlatev’s table, different methods are called for depending on the nature of the phenomena studied. Thus they are used to obtain different kinds of knowledge. First-person methods are required for studying (the contents of) consciousness, second-person methods for studying other subjects, and third-person methods for **so-called detached observation**. Phenomenology is simply not in competition with experimental studies. As Zlatev rightly observes, “phenomenology was never intended as a method for providing *explanations*, e.g. to answer *why* cats and not rocks appear to us (at least in Western cultures) as conscious beings, and even more so of *causal* explanation, e.g. what neural processes appear to be casually necessary for consciousness” (Zlatev, 2009, p. 174). However, once you accept (as you most do being a phenomenologist) that there is more than one scientifically viable

14. As Thompson (2008, p. 301ff) notes, Third person methods should really be called objective methods, because they involve no person at all. This fits in nicely with the Benveniste/Tesnière construal of the third person as a non-person, which I have tried to generalize to cultural semiotics (Sonesson, 2000b).

method, you have to admit that any particular methodological operation must always be accomplished from a specific perspective rather than **with what is often described as a view from nowhere**. This should make you realize the importance of rendering this perspective explicit.

Two caveats, however, seem to me to be necessary. The different methods may be applied to what is, from some point of view (notably a third-person perspective such as that of the natural sciences) **described as being the same** object or situation, but the kind of knowledge yielded will always be different, and therefore correlation or triangulation will never be straightforward. The most clear-cut illustration of this fact is the use of *protocols* (to use the term introduced by classical cognitive science) written by the experimental subjects during an experimental test session, in which case the knowledge derived from the test is different from that contained in the protocol, although the two kinds of knowledge may profitably be related. Another case in point is the program of neurophenomenology (cf. Thompson, 2008, pp. 329ff, 349ff, etc.), where phenomenological reports are put in relation to the results of brain scanning.

The other point is just as important. To the extent that we are involved with scientific methods, all the knowledge obtained will be of the objective or intersubjective kind (in the sense of not being merely subjective, as the term is used in ordinary language). Although the Lifeworld, and notably ordinary perception, is always subjective-relative, the structures of the Lifeworld, as Husserl insisted, are not themselves relative. If we are concerned with normative meanings /and/ rules, these meanings are of course relative to a particular socio-cultural Lifeworld, but they are objective to anybody who is part of that Lifeworld. However, the kind of introspection that is geared to personal contents of consciousness is not directly at issue in any scientific approach and thus is not accessible to phenomenology. In a parallel fashion, Second person methods are only relevant to science as a way of discovering the objective structures of interaction between different subjects. Terms such as *empathy* and *imaginative projection* would probably more ordinarily be applied to methods which are used by one subject in order to understand another, and as such they are essential, but not scientifically relevant. Of course, such *Lifeworld methods* (or perhaps better, operations) have their structure, and thus become relevant as objects of study to a phenomenological analysis. Indeed, from this point of view, the distinction between first-person and second-person methods appears difficult to maintain, although their opposition to third-person methods is beyond doubt.

Again, a number of glosses must be made on this observation. It could be said that, from a Lifeworld perspective, the modes of existence of the three kinds of knowledge are clearly distinguishable, the first existing for the subject, the other for the subject in his/her interaction with another subject, and the third being independent of any subject. Correlatively, it would seem that there are three *Lifeworld operations*, involving the knowledge of yourself, the knowledge of the other, and finally the knowledge of objective reality, which underlie the scientific methods with which we

are concerned, the latter thus only being accessible to those who have beforehand accomplished the corresponding operations of the Lifeworld.¹⁵

It is important to observe specifically (as was mentioned in passing above when discussing the objectivity of the structures of consciousness) that phenomenological description may be directed at the general structures of consciousness, which are presumably common to all human beings, or at structures of a lower degree of generality, such as those peculiar to a particular socio-cultural Lifeworld, such as the norms governing language use, the habits of gesture, and the like, in one culture as opposed to another.

In fact, some of the methods of analysis employed in linguistics are really phenomenological in nature, though the fact that this is not acknowledged, nor even reaches the awareness of the practitioners, may be detrimental to the results obtained (Sonesson, 2007; Zlatev, 2008). Formally, ideation is very similar to commutation (to use Hjelmslev's term for a procedure well-known to early 20th century phonology, from Prague to Paris), the difference only being that the variation is applied to one plane of language, to see whether this has consequences for the other plane (as noted already by Sonesson, 1989). Also the variations applied to sentences in generative or cognitive linguistics, to decide whether they are still grammatical or not, are of the same general kind. Formally, then, this is the same procedure employed by phenomenology, with the difference that the object to which the procedure is applied has a much lower degree of generality. But ideation does not concern what is necessary in relation to another language plane; basically, it is intrinsic to such a plane. Ideation concerns that which is presupposed by linguistic (and other) analysis. Thus, in relation to linguistic studies, ideation would not ask which content corresponds to which expression, or what sentences are part of the class of all sentences which are grammatical in a particular language, but what properties must be present for something to be a sign, a linguistic sign, a sentence, a discourse, a language, and so on. In this sense, the work of Bühler (1934), Hjelmslev (1959, 1973) and Coseriu (1978) are excellent examples of phenomenology applied to language.

Actually, it may be useful to exercise a little more caution here. 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. This formula may

15. This paragraph would seem to touch, somewhat obliquely, on the old quarrel within hermeneutics whether the operation called *Verstehen*, in Abel's words, is merely a psychological act, or something which intervenes in a particular way in the ascertaining of knowledge (cf. Radnitzky 1970, Vol. II, pp. 26ff, 100ff; Ferris, 1988/2002, p. 258ff).

actually be misleading, because phenomenological psychology is not about that which is subjective (or psychological) in the sense of everyday language: It is about the same objective structures as phenomenological philosophy, but with an emphasis on the acts of the subject. In this sense, we should perhaps rather say that linguistic methods such as commutation and grammaticality judgements are part of phenomenological psychology.¹⁶

If the observations made above are correct, one may wonder what the task of *triangulation*, as Zlatev uses the term, may be. When there are variations of different test results, on the side of third-person methods, and different descriptions in the self-generated protocols, on the side of the first-person methods, there is a common tendency to interpret the latter as simply being an epiphenomenon of the former. Even more seriously, when there are variations in the result of brain scanning or the like, on the side of third-person methods, and different descriptions in the self-reports, on the side of the first-person methods, the former will usually be seen as the cause of the latter (or at least relatively closer to the cause than the latter). In fact, of course, all we have are correlations, which can be interpreted in many other ways. But correlations, if they are not disproved in the long run, are already important discoveries. In at least one case they become essential: in order to compare human beings and other animals, for instance primates, we have no possibility of using first-person methods. In some cases (notably with humanly enculturated apes), second-person methods may be appropriate. Fortunately, these kinds of methods are increasing used, in spite of the difficulties, with non-human primates. But basically, we can only know animals from third person methods. This really also applies to small children, before a certain age, which can be variable, whether the task requires the possession of language or some of semiotic means of communication will do. Therefore, we can only fully compare human beings and other animals, as well adults and infants, if we can correlate first-person, second-person and third-person methods.

Moreover, there is the possibility of doing “front-loaded phenomenology” (Gallagher & Zahavi, 2008, p. 38ff), perhaps more properly described as phenomenologically loaded experimental science, since it consists in taking the results of phenomenological descriptions of particular phenomena as a point of departure for setting up a test situations. However, the idea that such experiments can be used to confirm or disconfirm the phenomenological descriptions would have to be considered with circumspection.

3.2. *The Nature of the Phenomenological Method*

Phenomenology is a method of description.¹⁷ As such, it should really be considered an empirical method. The phenomenological method is based on the fact that everything, which, in the normal course of events, is available to (at least human) consciousness is present to this consciousness as something being outside of it.

16. My own impression is that it is very difficult to draw the line between phenomenological philosophy and phenomenological psychology. There is no doubt at distinction to be made, but it needs phenomenological elucidation.

Consciousness is consciousness of **something**, and that **something is** outside of consciousness. This is what, in the Brentano-Husserl-tradition, is known as *intentionality*: the contents of consciousness are immanent to consciousness precisely as being outside of consciousness. Thus, we may describe a particular phase in the stream of consciousness as being an act in which something outside of consciousness becomes the subject of our preoccupation. In accomplishing such an act, we are directed to something outside of consciousness. In a much-used example, Husserl suggests we are involved with the perception of a cube. The cube, then, is given in consciousness as being outside of consciousness. The act itself is not conscious as such (in fact, it is in some way co-conscious, but not as the subject of an explicit intentionality).¹⁸ However, it is possible to turn the beam of intentionality around, directing it to the acts themselves, in order to study the particular way in which they are organized within consciousness. Once we do that, we have shifted the terrain: we are into phenomenology. Indeed, this turning around to the intentional acts themselves is known as the *phenomenological reduction*.

There is a corollary to this: in order to treat the act as something having a value in itself, we have to ignore whether the object to which the act is directed exists or not. This is the so-called *epoché*, the suspension of belief. The epoché is not to be understood as a doubt as to the existence of the world outside the mind, not even as a methodological doubt, in the sense in which Descartes introduced this idea. The world is still there. It is merely momentarily bracketed. There is still another requirement for doing phenomenological analysis in Husserl's sense: we have to be directed to the general structures, rather than the individual character, of each given act. Such directedness to the general facts is known as the *eidetic reduction*. In order to attain the level of generality, we have to go through free variations in the imagination, also known as *ideation*, by means of which we vary the different properties of the act, in order to be able to determine which properties are necessary in the constellation, and which may be dispensed with. If, like Husserl, we start out from perception, we might want to vary the different ways of perceiving the cube. There are indeed many acts of perception that are still the perception of a cube, and even, more specifically, perception of this same cube. Most notably, of course, the cube may be seen from different sides, from different perspectives, only in part from a peep-hole, and so on. Suppose, however, that I see the cube as being something more, in particular: a die. I have then added a variation to the original pristine cube, which is now not simply a cube anymore (although, in this case, it still remains a cube at the same time). The question then becomes: is this still an act of perception. Husserl, clearly, would not think so. I disagree (Cf. Sonesson, 1989). The fact that Husserl and I happen to draw

17. It is of course possible to consider phenomenology to consist of several methods, as suggested to me by Jordan Zlatev, since there are certainly several methodological operations involved (on which more will be said in the following). Although, as far as I know, Husserl never considered this possibility, it is not impossible that some of these operations may be accomplished independently. Without taking a stand on this issue in the present context, I have opted for following tradition in talking about *the* phenomenological method.

18. This observation, in itself, is an important result of Husserl's phenomenological studies, but we must ignore it in the following, in order not to complicate matters inordinately.

different conclusions from the act of ideation in this particular case is important—and similar things have certainly happened many times before in the history of the phenomenological movement, even, in fact, to Husserl himself when he repeated some of his own analyses. This does not mean that the results of phenomenological analyses can vary arbitrarily, as is often said about subjective approaches. On the contrary, all who have practiced phenomenology agree on the basic structures of phenomenological experience. But Husserl repeatedly invokes the necessity of a community of phenomenologists who would be able to corroborate existing phenomenological analyses.¹⁹

In spite of the terminology often used by Husserl (such as *Wesensschau*), phenomenological results do not present themselves in the form of any kind of revelation, given in a single instance. Rather, the phenomenological method supposes the accomplishment of an arduous work, which has to be done over and over again, in order to ascertain a reliable result. At least, this is, in actual practice, how Husserl went at the task: as can be seen in the numerous volumes of the *Husserliana*, published after Husserl's death, Husserl laboriously went through the same descriptions and variations over and over again, without being completely satisfied with the result. Indeed, as in all scientific endeavours, the result of the phenomenological method always remains provisional. This is what Husserl, with another rather misleading term, calls *Evidenz*. Peirce, of course, thought of this as the (potentially infinite) sequence of interpretants.²⁰ Some early phenomenologists, such as Aron Gurwitsch and Maurice Merleau-Ponty, went through some of Husserl's painstaking analyses once again, finding new facts about perception, the field of consciousness, and embodiment. I have myself taken upon myself the demanding task of elucidating the structure of the picture sign, finding in some cases that Husserl's own work was not meticulous enough (Sonesson, 1989). More recently, Thompson (2007) has applied himself to the charge of enhancing Husserl's analysis of mental images. There is no end to the work: but, as in all scientific endeavours, we always seem to get a little closer to the truth.²¹

Peirce, to be sure, was also into phenomenology. According to his definition, phenomenology is that particular branch of sciences which “ascertains and studies the kinds of elements universally present in the phenomenon, meaning by the phenomenon whatever is present at any time to the mind in any way” (EP II, 259).

19. For more about this in recent secondary literature, cf. Zahavi & Gallagher (2008, ch. 2).

20. This, indeed, is a common interpretation of what Peirce says, but on close reading of Peirce's texts, it seems unavoidable to conclude that, to Peirce, truth is given beforehand, although we can only attain it by approximation: as he often explains, human beings and the world are of the same stock, so we will end up discovering the truth in the long run. A case in point is this paragraph in the Letters to William James (EP, 502f): “in other words our Reason is akin to the reason that governs the Universe; we must assume that or despair of finding out anything.” There does not appear to be any such postulate of metaphysical historicism in Husserl. Now, also cf. note 57 in Stjernfelt (2007, p. 432) on Peirce entertaining rather a correspondence theory than a coherence theory of truth.

21. My description of the phenomenological method is based on what I have gathered from my own reading of Husserl's work, as well as my own attempt to use the method. A more principled, and recent, description of the phenomenological method can be found in cf. Gallagher & Zahavi (2008) and Thompson (2007, p. 267ff)

Peirce himself claims to have taken the term from Hegel, but as has been pointed out by Stjernfelt (2007, p. 441, note 153), his usage of the term coincides with the period in which he was reading Husserl, and there are indeed obvious similarities between Peirce's and Husserl's usages, which are not found in Hegel's work.²² Later on, Peirce was going to call the same study *phaneroscopy* and describe it as follows:

a study which, supported by the direct observation of phanerons and generalizing its observations, signalizes several very broad classes of phanerons; describes the features of each; shows that although they are so inextricably mixed that no one can be isolated, yet it is manifest that their characters are quite disparate. (CP 1.286)

It would suffice to substitute the term *phenomenon* for *phaneron* to obtain a text that might be describing the phenomenological method according to Husserl (certainly the phenomenological and the eidetic reduction). Indeed, we have seen that Peirce did just that is his earlier description of **the domain of study concerned.[is this what you wanted? seems odd. I want to ask: concerned with what? Suggest: description of this form of study.]** Peirce's text, however, continues in the following way:

This then proves, beyond question, that a certain very short list comprises all of these broadest categories of phanerons there are; and finally proceeds to the laborious and difficult task of enumerating the principal subdivisions of those categories.

Husserl, of course, would also expect some very broad categories to be established by this method. Nevertheless, it seems incompatible with his whole view of phenomenology to claim beforehand that a short list of such broad categories could be established. The difference between Husserl and Peirce becomes even more pronounced, when we realize that Peirce's short list will certainly be made up of triads comprising other triads, as well as some dyads and a few single terms.²³ This recursive triadic organization is a foregone conclusion of Peircean semiotics, which is prior to any phenomenological investigation, that is, is a priori, not because this has been established by free variation in of the imagination, but in the (French) ordinary language sense of being decided before any observation takes place. This is the first unjustified presupposition of Peircean phenomenology. But there is also another one, which concerns the content of the original triad, Firstness, Secondness, and Thirdness,

22. Stjernfelt (2007, p. 141f) quotes many examples of Peirce's definitions of phenomenology, which show clear similarities to Husserl. He also documents the mutually negative opinions the two scholars would have seemed to have on each other, clearly because none of the had really read the other. In the whole of this book, Stjernfelt (2007), and in particular on page 141ff, gives a lot of examples of the similarities between Husserl and Peirce.

The precursor of such rapprochements is, interestingly, Spiegelberg (1956), otherwise known as the most authoritative historian of the phenomenological movement, in the strictly Husserlean sense. Here, we will however be concerned with only one similarity and how it turns out to lead on to dissimilarity.

23. Such as the representamen, which is Firstness lacking subdivisions, the object, which is Secondness, being divided into dyads, and the interpretant, which is Thirdness, being analyzed into different kinds of triads. However, the icon, in spite of being Firstness, is of three kinds: images, diagrams, and metaphors.

which are the meanings which are supposed to recur all through the hierarchy of triads. Thus, viewing Peirce's phenomenology from the end-point of Husserlean phenomenology, there are (at least) two postulates which have to be justified: that all categories come by threes (with the exceptions noted above), and the specific content of the three original categories.

At this point, Peirce's phaneroscopy could be considered to be one possible variant resulting from the Husserlean variation in the imagination—one that is not necessarily true, or which may be correct or not according to its particular instantiations, such as, just to mention the most obvious cases, Peirce's first, second, and third trichotomies.

However, before going on to a discussion of these trichotomies, I would like to take note of an important methodological addition to the phenomenological method which, as least in its explicit form, must be ascribed to Peirce: the use of diagrams, which, since they are icons, allow us to directly "see" the result of the variations, either in the graphs themselves, or with addition of some further presuppositions projected onto the graphs. We have all been using diagrams in this way, as even Husserl (for instance when discussing time consciousness) and Peirce did on rare occasions in the received texts (and as Peirce in addition did, more programmatically, in his existential graphs): my own table 1 above, as well as many others tables and figures in earlier works (e.g., Sonesson, 1989), Zlatev's table 1, reproduced above as table 2, and so forth. The importance of diagrams for resolving phenomenological problems, mentioned many times by Peirce, still remains the central insight, as well as the fundamental theme, of Stjernfelt's (2007) recent book.

3.3. *The Trichotomies According to Peirce – and Calvino*

The idea that all divisions of the (experienced) world come by threes is impossible to prove. However, it may be as impossible to disprove. Still, if we are not living in the kind of world parodied by Eco in *Foucault's Pendulum*, there is really very little chance that the world is actually made up in such a way. We are, of course, not talking about the way the world "really is" – but the way it appears to be to phenomenological description, and, at least according to the quotation above, it seems that also Peirce, when he was talking about his hierarchies of threesomes, was thinking about what was accessible to phenomenological observation (for, even admitting the existence of Peircean quasi-minds, Peirce recognizes that it is through ordinary human minds that we have privileged access to phenomena). The Peircean universe of discourse is regimented by the mystique of numbers, and to that extent, his work is part of a large-scale Western tradition with (at least partly imaginary) Oriental sources that construes the world (as we experience it) as being built on fixed quantitative relationships, which have an esoteric meaning. This is a world-conception testified from Antiquity to Giordano Bruno and Raymond Lullus (cf. Yates, 1964, 1966; Eco, 1995). Conceptions like these were for an appreciable amount of Occidental history part of the common sense world of at least some intellectual groups. This, however, does not

show that such conceptions could be phenomenologically justified. As pointed out in section 1, the task of phenomenology is to reach beyond common sense.

It may, of course, be phenomenologically correct to say that, from some well-defined point of view, there are indeed three kinds of signs, with respect to the different relationships which may obtain between expression (representamen) and content (object and/or interpretant): that is, there are iconic, indexical, and symbolic signs. For a long time, I have indeed found this division intuitively satisfying, although I am still at a loss to say exactly from what point of view the variation in imagination must be made to obtain this result. Thus, one may feel that the distinction between expression and content being related by a mere regularity or by a normative imposition is too important to be conflated into one kind of relationship, the symbolic one (both being *habits* in the special Peircean sense of the term, which will be discussed below). But even if this division should turn out to be phenomenologically relevant, it does not follow that all other variations in the imagination must result in threefold divisions. Thus, for instance, the idea that the sign itself is made up of three parts is not phenomenologically justifiable as a matter of course. As I have argued elsewhere (Sonesson, 2007, in press a), the question whether something has two or three parts has no meaning before determining the domain for which the model is valid, as well as the criteria (the relevant properties) according to which the division is made. Since the domain of the Saussurean sign is that which is internal to the sign system, the content being all the time opposed to the “real world” it interprets, it would also be a triadic notion, to the extent that reality outside the sign system were included in the domain to be analyzed. As for the Peircean sign, it really comprises six instances, if all criteria of division are included, since there are two kinds of objects, and three kinds of interpretants, but only one kind of representamen.

Quite apart from the necessity of always making threefold divisions, there is the question of the content of each of the three categories. Firstness, Secondness, and Thirdness mean so much more than just being the first, the second, and the third category of an obligatory segmentation of the world into triads. Often, Peirce simply claims that Firstness is something that exists in itself, Secondness must be related to something else, and Thirdness requires a more complex relationship (either a relation between three things, or a relation between relations, or perhaps both at the same time). One of the more formal definitions of the three categories reads as follows:

Firstness is the mode of being of that which is such as it is, positively and without any reference to anything else. Secondness is the mode of being of that which is such as it is, with respect to a second but regardless of any third. Thirdness is the mode of being of that which is such as it is, in bringing a second and third into relation to each other. (A Letter to Lady Welby, CP 8.328)

Firstness and Secondness could here almost be understood as a somewhat distorted equivalent of Husserl’s (1913, Vol. II, part 1, 225ff) distinctions between independent and dependant parts, with the exception that there is no proviso for the difference between mutual and one-sided dependence (the same three-fold distinction made by Hjelmlev [1943], as Stjernfelt [2007, p. 167ff] judiciously remarks). This

then raises the question what the business of Thirdness is. If it involves a relation between two terms, instead of only one term and a relation, as Secondness could perhaps be understood to be, or a relation between relations, why then should we not go on defining Fourthness, and so on? Of course, Peirce claimed that all relations beyond Thirdness could be dissolved into several relations, but Thirdness itself could not be so resolved. It is not clear whether this is indeed a phenomenological fact. Actually, this must, among other things, depend on what exactly is to be understood by Firstness, Secondness, and Thirdness. Thus, for instance, is there really no relationship in Firstness? When it is used to define a kind of sign, the icon, it must already be supposed to be part of a relationship, even before it is seen as a sign (namely the relation of similarity).²⁴ Indeed, Peirce repeatedly says that Firstness cannot be grasped as such. And what about Secondness? Is Secondness second, because it is made up of two things—in which case it would already be made up of three items, two things and a relation? Or should the second thing be conceived as a relation hooked up to an element, (Sonesson, in press b)? Thirdness, in a similar way, then would have to contain three hooks, one of which is already filled up with an element describing the nature of the relationship.

However, there are many places where Peirce imputes a much more concrete content to each of the categories. Since it is impossible to look at all the (only partly overlapping) descriptions of these categories offered all through Peirce's writings, a few instances pertaining to each category will have to do here: as I could not avoid to mention above, Firstness is the fleeting instant which can hardly be grasped in itself; indeed it is the present moment; it is quality; it is possibility ("except that possibility implies a relation to what exists, while universal Firstness is the mode of being of itself." CP 1.531); "freshness, life, freedom" (CP 1.302); "spontaneity" (CP 3.432); "indeterminacy" (CP 1.405); "agent", "beginning"; (CP 1.361); it is also "immediate, new, initiative, original, spontaneous, and free, vivid and conscious"; before "all synthesis and all differentiation"; having "no unity and no parts" (CP 1.357).

As for Secondness, it involves things such as "brute actions of one subject or substance on another." (CP 5.469), "the experience of an effort", "reaction", "resistance" and "opposition" (CP 8.330), "actuality", being "then and there" (CP 1.24; cf. "hæcceity", CP 1.405.), "willing", "experience of perception", "existence" (CP 1.532), "dependence" (CP 3.422), "patient" (CP 1.361), and so on.

Thirdness, finally, is "the mental or quasi-mental influence of one subject on another relatively to a third." (CP 5.469), "law" (CP 1.26), "habit" (CP 1.536), "general rule", "future" (CP 1.343), "cognition" (CP 1.536-537), "representation" (CP 5.66), "mediation" (CP 2.86-89 and 1.328), and so on.

After many decades of reading Peirce, I do find a kind of coherence in these categories, but it is certainly not in the form that can be subsumed by any ordinary definition characterizing necessary and sufficient conditions. And in spite of what is,

24. Thus, from the point of view of the sign, iconicity only starts being potentially interesting as an iconic ground, as we will see below, in section 3.2.

on the face of it, the diversity of the categories, their content is certainly much more specific than what is contained in the purely numerical definitions. Indeed, given these descriptions, Firstness, Secondness, and Thirdness certainly sound very much like what Vygotsky (1962) would have called chain-concepts, characteristic of small children (and what at the time were known as savages). Since Wittgenstein presented this type of vague concepts as based on *family resemblances*, and pointed out that they are spread all over ordinary language, it seems that they have been somewhat rehabilitated. Rosch conceived the idea of prototype-based categories, according to which a category is defined by a central example that seems to embody what is important to the category, with other members being at different distances from the prototype. In a number of experiments, Rosch showed this explanation model to make sense psychologically. One of the most interesting experiments involved placing objects on a spatial layout in relation to some object that was taken to be the prototype of the category. It would therefore seem that this notion is grounded by a combination of first-person and third-person methods.²⁵ Rosch and Mervis (1975) reflected on the relations between the prototype and Wittgenstein's family resemblances, arguing that the difference consists in the former being related to a central example, while the second lacks any such instance.²⁶

At first, one may tend to see in the Peircean categories some kind of chain-concepts or family resemblances, but I think a few of the members of the **chains** can really be considered to make up the prototype, or perhaps really the ideal type, of the categories. This could be seen as a generalization of the claim, made over and over again by Peirce, that some instances of his categories are *degenerate* (a suggestive term in Peirce's work, the meaning of which we are left to guess at). The others, then, would be the prototypes or ideal types. In the case of Firstness, this central idea seems difficult to grasp, but it certainly has something to do with fleetingness or **streaminess** [**my mistake, streamy is a word; your original choice is correct, apologies**]. Secondness is dominated by the idea of reaction/resistance. And law tends to be the most prominent element of Thirdness. It would be impossible to justify these contentions in the short space of this article. However, I think the following quotation from Peirce goes a long way in showing that (double-sided) resistance if the ideal type of Secondness:

A door is slightly ajar. You try to open it. Something prevents. You put your shoulder against it, and experience a sense of effort and a sense of resistance. These are not two forms of consciousness; they are two aspects of one two-sided consciousness. It is inconceivable that there should be any effort without resistance, or any without a contrary effort. This double-sided consciousness is Secondness. (EP I, 268)

25. Indeed, it would seem to be front-loaded phenomenology *avant la lettre* (Cf. section 2.1).

26. Elsewhere, Rosch (1975) erroneously identifies her prototype concept with the Weberian ideal type. The incorrectness of this is shown by Sonesson (1989, p. 71f): whereas the prototype is defined **by means of the central example** of a category and **includes** as other members other items being at more **or** less great a distance from this central instance, an ideal type is an artificial creation, which is exaggerated in relation to reality and may contain contradictory properties, often projected onto time and/or space.

After half a century of familiarity with Peirce, I must say that the original threesome does start to make sense to me. The question, however, is how it compares to another conceivable triads, for instance the one created by the Italian novelist Italo Calvino (1983), for the purpose of a volume of short stories. All the stories are arranged into number combinations, which are recursive, just like the Peirecean triads, that is, they are applied to themselves (there is the Firstness of the Firstness of the Firstness, and so on). At the end of the book, Calvino offers a list of three categories: the first category involves visual experience, has often as object natural shapes: it could be termed description; the second category contains anthropological-cultural elements, language, meanings, signs: it is narrative; the third category incorporates speculative experience; it is about cosmos, time, infinity, the relation of self to the world, the dimensions of the senses; meditation. In the book, the part dedicated to the first category is about vacations, and as also Calvinean Firstness combines with Firstness of different degrees, the stories tell us about observations of waves, of naked breasts on the beach, and of the reflection of the sun in the sea; when it combines with Secondness, we have descriptions of animals; and in the combination with Thirdness, stars are described. The part involved with the second category as the dominant category plays out in the city, giving rise, in different combinations, to narratives of things taking place on the terrace, when shopping, and at the zoo. The stories comprised in the third part are determined predominantly by the third category, and deal with silences, which in the different subcategories involve trips, society life, as well as the universe and death.

Clearly, Calvino's categories only slightly overlap with those of Peirce. In fact, he certainly had no ambition of being a Peircean, since his connection to semiotics were actually on the side of the Greimas School. And although Calvino was a thinker not deprived of metaphysical aspirations, there is not much probability that he took his categories as seriously as Peirce did. In fact, Calvino's categories may appear easier to grasp than those of Peirce. When projected onto the stories, however, they give the same feeling of conceptual nebulae, which still somehow seem to make sense deep down.

3.4. The Onto-epistemology of the Phenomenological Method

It was claimed above that, from the point view of the kind of cognitive semiotics presented in this article, phenomenology is above all a method. But no method goes without a certain amount of ontological and epistemological presuppositions, and this is perhaps particularly true when it comes to phenomenology. So, in the following, I would like to sort out, at least in a preliminary way, which onto-epistemological consequences follow from applying the phenomenological method, and which do not. Since I do not know of anybody having tried to do precisely that, I hope I may be excused for touching the matter only briefly.

The primary presupposition of the phenomenological method is that consciousness exists. It is not, as Dennett would have it, just an illusion. Nevertheless, it is not entirely clear what the difference between having consciousness and being under the illusion of having consciousness is. The difference is not an obvious one like that between having a wart and only having the illusion of having one. If you think (or believe, etc.) that you have a consciousness, that would seem to be tantamount to having a consciousness. Probably the idea is as follows: If we have consciousness or not, this would not change anything else in the world. Since the world in question is obviously the world of our experience, it is of course extremely difficult to make any sense of the proposition that consciousness is an illusion. If this were true, however, the phenomenological method would be pointless. If the structures of the acts making up our stream of consciousness do not contribute to the way the world is present to us, there is nothing that could be investigated by the phenomenological method. For the same reason, there would be no object to be studied by what Dennett has called *heterophenomenology*. If, as Dennett claims, it is concerned to study, from a Third-person perspective, reports from the fictional domain resulting from the intentional stance, then, as Thompson (2007, p. 303ff) remarks, it would really be a Third-person method based on First-person methods, and it would not escape any of the problems pertaining to phenomenology proper. Moreover, as Gallagher & Zahavi (2008, p. 18) add, there is no way you can interpret Third-person reports, without referring them to your own First-person experience, or else the interpretation must be based on unverified notion taken over from folk psychology. More importantly, however, such a study would be rather pointless, because it could not tell us anything about the way the world of our experience really is built up. To this final caveat Dennett would perhaps answer that to study the results of the intentional stance is as interesting as to investigate other works of fiction, from fairy tales to literary works. But this would mean that heterophenomenology is simply not playing the same game as phenomenology.

The primary ontological presupposition of the phenomenological method, then, is therefore that there is a particular domain of existence that could be called consciousness or mind. In this sense, mind cannot include what Peirce terms quasi-mind, if, as I believe probable, Peirce would be willing to accept the biosemioticians' idea of the cell having such a quasi-mind (which is at least implied by the idea of cells exchanging signs and the recourse to the Peircean sign definition in biosemiotics, e.g. Hoffmeyer, 2005). In an important sense of the terms, mind is not continuous with matter. It would seem to be impossible for a phenomenologist to accept, in Peirce's words, that "matter is effete mind, inveterate habits becoming physical laws" (CP 6.25), just as what could be taken to be the opposite, but in fact undistinguishable, doctrine that mind is simply matter. If Peirce's all-pervading conception of continuity (on which see Stjernfelt, 2007, pp. 1-48) should be taken to apply to the relation between mind and matter, in this sense, as suggested by Brier (2009), it would seem to render the phenomenological method impossible. We must of course take care (as Peirce should have done) to specify in what sense we claim a discontinuity between

matter and mind. Short of being a full-fledged dualist, and even a creationist, one must necessarily admit that consciousness arises from matter, just as life has beforehand proceeded from inert nature. Similarly to life, consciousness can be seen as an emergent property. Nevertheless, I fail to understand Thompson's (2007, p. 221ff) argument that, since life, which seemed so mysterious to the vitalists, has been shown to result from the ordinary laws of chemistry, we should accept that mind is not any more mysterious, although there is, at present, no such straight-forward explanation for its emergence. No matter the chemistry, on the contrary, life remains a big hiatus from a phenomenological point of view; and so does mind.

The second important presupposition of the phenomenological method must rather be assigned to the side of epistemology (and, in fact, also to psychology). It is one thing to have consciousness, and it is another to be able to take cognizance of the fact of having consciousness. If our consciousness is normally made up of acts directed to the outside world, and, in particular, if this directedness to the outside world is an intrinsic property of consciousness (that is, intentionality), the acts themselves could easily be outside of our awareness—and perhaps unavoidably so. But the phenomenological method supposes it to be possible for the subject to turn around and observe its own acts. The subject, then, would have to be able to make normally unconscious, preconscious, or semi-conscious parts of mind into objects of awareness.²⁷ More specifically, the very acts by means of which contents normally become conscious have to be made available to consciousness – precisely as being the acts in which certain contents become subject of our awareness. This is an epistemological issue, to the extent that it asks whether the phenomenological method is qualified for the task. However, it is also a problem of (phenomenological) psychology, because it requires real human beings of flesh and blood and, more importantly in the circumstances, possessing the kind of minds which are empirically known to exist, to be able to accomplish feats of a nature corresponding to operations operating on their own operations, while being aware of the contents of the original operations. And if this formulation causes your mind to twist, you may be able to appreciate the difficulty involved.²⁸

Not surprisingly, no tick or bat, nor any other animal has been known to use the phenomenological method. No cell could be expected to do it on its own. The phenomenological method is difficult to use, also for human beings, as testified most clearly by the posthumous writings of Husserl (simply because nobody else seems to have set down all their provisional phenomenological analyses in writing). It is, as all scientific methods, eminently fallible, to adopt a Peircean expression. However, even if we suppose some kind of *qualia* to accompany the simple life of the senses

27. The term *preconscious* should not be understood in the Freudian sense, but almost literally, as that which is not a subject of awareness at the moment (and/or habitually). It goes without saying that the term *unconscious* should not be understood in a Freudian, Lakoffian, or any other mystical sense. Nor should it be understood as equivalent to physiology and/or what is in present day jargon known as the subpersonal level.

28. Although this is subject to further investigation, this seems to me to be a tougher requirement than the kind of meta-operational position while abstracting from the contents of the individual's acts, which Piagetian psychology supposes to be a stage we all attain during development.

characteristic of bats (and perhaps even ticks), it would be very surprising to learn that they also had some *meta-qualia*, that is, some experience of their own experience. For all we know, chimpanzees, bonobos, and other primates may well be great phenomenologists, simply being unable to communicate their discoveries to us, even by means of the artificial sign systems that we have taught them. More probably, however, they are too busy, as most human beings are, living in the acts of immediate experience of the world. After all, the phenomenological method is a late-comer even in human history.

Without pretending to have spelled out all the onto-epistemological presuppositions of the phenomenological method, I would now like to say something about what it not implied by the method, in spite of these implications often being taken for granted. First of all, the phenomenological method does not suppose any solipsism. A solipsist may of course go through all the operations of the phenomenological method, but he would then only learn something about himself. His situation would not be unlike that of Dennett's heterophenomenologist. The first problem, which Husserl tackled in his *Cartesianische Meditationen* (Husserl, 1950), which should perhaps more properly be called the Anti-Cartesian Mediations, was the fact that other human beings are not present to consciousness simply as contents of consciousness (or as automata, as Descartes suggested, looking on other human beings from afar): They are there as other subjects being able to make me the object of their intentions in the same way that I make them the subject of mine. As an anti-psychologist, in the sense of his time, Husserl was of course also concerned to show that some structures, which were not (exclusively) mental, such as, in a famous example, geometry, had some existence outside of individual minds. Finally, he even ended up claiming that the perception of our common perceptual world must be grounded, not only, as supposed in the early texts, on the possibility of going round those objects which we do not now see in full, to contemplate them from other angles of vision (*Ich kann immer weiter*), but in the conviction that these objects are (at least potentially) experienced by other human beings from other points of view (cf. Zahavi, 2003).

These are problems encountered by phenomenology, and they have certainly not been fully resolved as yet. Those who point out that these are problems for the method, however, tend to be people who reject the method. They fail to inform us (or even becoming aware of the fact) that, outside of the phenomenological method, there is no way of even starting to resolve these problems, because, without the phenomenological method (or some precursor to it), there is no way you can even be aware of these problems.

None of this has anything to do with Husserl's famous turn to transcendental idealism. That you can use the phenomenological method without being a transcendental idealist is shown by the fact that those few thinkers who remained close to Husserl's methodological precepts, such as, to pick two rather different examples, Ingarden and Gurwisch, both rejected this metaphysical reinterpretation on the part of Husserl—without any ensuing incoherence.

No ontological idealism is implied. The world is there to us only *through* consciousness, but not *in* consciousness.

3.5. *From Historical Structures to the World of the Natural Sciences*

So far, I have been concerned with the onto-epistemological presuppositions of the phenomenological method as such (without any claim to exhaustivity). But there are also, I believe, provisional results of the method, some stemming from Husserl himself and his few close followers, some from the only other phenomenologically inspired tradition of semiotics I know of, the Prague school, and some resulting from my own work.

Cognitive science is, it seems, a rather ahistorical tradition, although it has, in recent times, taken on some evolutionary issues. Both phenomenology and semiotics, on the other hand, have come under fire from neighboring traditions, because of a purported lack of interest in diachrony, whether this is to be understood on the time-scale of evolution, or that of human history. Within semiotics, the issue is complicated by the fact that one of the founding-fathers, Peirce, did manifest some interest in evolution in the Darwinian sense of the term, while the other, Saussure, is famous for insisting, after several centuries of linguistics being completely dedicated to historical studies (although this was the kind of studies in which he made his name in his own time), on the importance of studying the structure of meaning systems synchronically. A lot could be said in order to refute the claim of phenomenology and semiotics ignoring the diachronic dimension, but the historical fact of the Prague school, based on a double phenomenological and semiotic heritage, is sufficient to deny the accusation in both cases. In the most extreme version of its claims, the Prague school would say that there is always already diachrony in synchrony, and that diachrony can only be applied to synchrony (i.e., to entire structures). Indeed, in the terms of the title of an excellent book about the Prague school (Galen, 1985), the structures as such are historical. It is also, unfortunately, an historical fact that the Prague school ceased its intellectual work in the forties of the last century, and that very few of those involved with semiotics since then have seriously taken on this heritage.

Evolution does, however, appear to be a trickier issue. It may seem that history could still be conceived from within phenomenology, in particular with a rather common hermeneutic extension, as the subject taking on the tradition handed down to it from earlier history. If anything, Darwinian evolution is outside experience. Evolution does not have any obvious subject. Indeed, there can be not phenomenology of evolution. This, however, is no more strange or disturbing than the fact that phenomenological analyses cannot take over the function of brain-scanning. Phenomenology can bring semi-conscious, pre-conscious and unconscious parts of consciousness into awareness. Husserl brings this transformation as far as kinesthetic experience. Biological evolution, however, is something which only exists at the subpersonal level (Bermúdez, 2005), which, as the terms clearly says, is a level on which there is as yet no subject. Furthermore, it also starts at a point in diachrony in which subjects did not yet exist, and, in any case, at a moment in time for which no

subject living today could possibly be able to reach, however much he or she tried, any semi-, pre- or unconscious experiences of its own. This fact does not serve to highlight any defects of the phenomenological method. On the contrary, the reflections on the phenomenological method offered in this paper demonstrate that any knowledge we may have about evolution, and about nature in general, must be indirect, mediated by a third-person perspective.

Husserl addresses both our present concerns in *Krisis* (Husserl, 1954), the diachronic one, unfortunately, only in terms of human history, but the relationship of phenomenology to the natural sciences on a broader scale. To begin with, this is the first time Husserl presents phenomenology as a method that is historically situated. It does not just happen to be invented at the turn of the 19th century by Husserl himself, following ideas about an empirical or descriptive psychology formulated by Franz Brentano (1874-1955), then being at least in part rediscovered by Peirce. The invention of phenomenology, in Husserl's view, was historically necessary at this very moment (though not in the sense of any Hegelian historic predetermination). After the invention of the natural sciences a few centuries earlier, and the generalization of a rationalist attitude to all kinds of problems, including those characteristic of the human and social sciences, which took place during the Enlightenment, science and rationality had made ever greater strides. This process produced during Husserl's own time a crisis in the relationship between the sciences and the Lifeworld, that is, the *world taken for granted*, as Husserl's close follower Alfred Schütz was later to call it: the world in which ordinary human beings, including the scientists *as* human beings, stake out their life.

So far, Husserl's quandary seem very close to the dialectics of the Enlightenment diagnosed by Horkheimer & Adorno (1947), according to which reason run wild has ended up taking over all of experience, depriving ordinary life of its magic, which, in the end, results in reason being instrumentalized into the industrial extermination of the Jews during the Second World War. As Michel Foucault (1977) was to add much later, very much in the spirit of the Frankfurt school, this reason run wild was involved in a much bigger project, transforming human beings into docile subjects completely regimented by different disciplinary systems, which, apart from prisons and mental hospitals, include the scientific domains themselves. Like the Frankfurt school, Foucault apparently saw this a completely negative development, which could however not be changed. Husserl's stand is quite different. Like the poet John Milton, who set out to justify the way's of God to man, Husserl is out to champion science in the eyes of human beings living in the Lifeworld. It is precisely for this reason that phenomenology is needed. The phenomenological method discovers the rational structures that are at the foundation of the Lifeworld.

In spite of that, (natural) scientists will easily get the impression that Husserl sets out to relativize the achievements of science. There is a danger of forgetting that the only real world of our experience is that of the Lifeworld, and that even the scientist, when he makes his experiments, is himself located in that world. So are his instruments: If the scientist uses a particle accelerator in order to study the internal

structure of particles, he cannot treat the accelerator itself as an object of study, that is, consider it from the point of view of the particles it contains. Both the scientist and his apparatus must be firmly entrenched in the Lifeworld, if he is to be able to bring about a study of the scientific object of his domain. It is only from the point of view of the Lifeworld, that the scientific world can be conceived. This idea was later generalized by Alfred Schütz (1967), for whom the scientific world, together with the world of dreams, of phantasm, of play, of art, and of religion, were all “finite provinces of meaning”(Schütz, p. 229), accessible only taking your point of departure in the Lifeworld.

It would seem to follow from this that also the scientific world is a world of fantasy, if not phantasms. I think this is, in a way, a correct interpretation. But the scientific world is not a world of unregimented fantasy (like in the anarchist conception of Feyerabend). In Husserl’s view, science makes progress, so it is certainly on its way to the truth, however far the latter may still be distant from us. Although a self-described phenomenologist, Barry Smith (Smith, 1999; Smith & Varzi, 1999) invokes ecological terminology to describe the Lifeworld as the niche in which human beings stake out their life. It is found on a *mesoscopic* level, in between the microscopic and the macroscopic levels described by physics, but it is real in the same sense as the latter two. According to Smith, this is James Gibson’s view, which he opposes to that of Husserl, for whom only the Lifeworld, not that of the physical sciences, is real. This is not how I read Husserl; and even if it should turn out that I am wrong in my interpretation of Husserl, I should still prefer to see the relationship otherwise (cf. Sonesson, 2001). To take a familiar though perhaps somewhat old-fashioned example, physics may describe light as being at the same time a series of waves and a conjunction of bodies. This is nonsense to common sense, and rightly so: for, clearly, this must mean that light is really some third kind of thing, which happens to share some properties with the common sense objects called waves and bodies. So, the language that physics uses to describe the physical world is approximate and metaphoric. Similarly, in the 20th century, the atom was long conceived on the model of a planetary system in miniature, until it was suggested that electrons should rather be seen as amounts of energy transferred from different positions around the nucleus. These are two metaphors for the basic structure of the physical world, the first of which could for a long time account for the data known, later on being judged insufficient for the same reason. In this sense, I think, Husserl talks about the different systems of explanation of the natural sciences as being some kind of *Ideenkleid* cast over reality, which we should not mistake for reality itself. This does not mean that the world that this clothing of ideas tries to approach is not real. But the Lifeworld is the only world to which we have direct access and which may be described in its own language.

It is in fact unclear to me why Smith construes an opposition between Husserl and Gibson. As far as I understand (and as I have been suggesting at least since Sonesson, 1989), Gibson’s psychology of perception is really the first attempt at naturalizing phenomenology. In fact, James Gibson’s wife, Eleanor Gibson (Gibson, 1969; Gibson

& Pick, 2000) who was more specifically involved with learning, describes the Gibsonian theory (that of them both, in fact), as being based on differentiation, rather than enrichment. This means that, in a sense, everything we may know is already present to perception, but it has to be discovered in the whole of which it is a part and put into the proper perspective. In *Pictorial Concepts* (Sonesson, 1989, p. 316ff) I illustrated this by what I called the wine taster's code. In the beginning, all wines taste alike. With time, we may learn to discover more nuances of taste, and in the end these differences seem so great that we have difficulty understanding that they at first appeared slight. But the tastes and their differences were there all along. This is of course a process taking place entirely in the Lifeworld. We may come closer to the kind of differentiation characteristic of the natural sciences, if we manage to account for the differences of taste separating the chemical components to which the taste differences are due. However, here we are still very close to the surface of the Lifeworld. When developing theories of the microscopic and macroscopic world, we normally only have access to a few facts visible from the standpoint of the mesoscopic world, to use the term proposed by Smith, most of the time only by means of some special kind of apparatus situated in the mesoscopic world. No full account can be made of what happens in both these worlds foreign to us, so we have to connect a few facts and invent a name for them, whether it is mitochondria or black holes. These facts, as far as they go, are real enough. But their names and whatever they suggest in ordinary language are pure fantasy.

4. Stepping up to Husserl's Lectern: Phenomenology Within the Tradition of the Enlightenment

When Husserl wrote his *Krisis* in the 1930s (Husserl, 1954), it was still possible to feel proud of being a European. There is no reason to think that Husserl and his contemporaries ignored the fact that rational techniques had been put to bad ends submitting other countries and transforming them into colonies forming part of one of the many European empires of different scales still having course at the time. Although Husserl himself was to become a victim of the *Third Reich*, he did not necessarily realize that rational procedures could be used in the pursuance of irrational ends such as the extermination of all people of a certain stripe, as most notoriously exemplified by the cases of the genocides of the Jews and Gypsies; he was more certain to know about the irrational ends. No one, at the time, probably had any inkling of the idea that all of European civilization, at least from early Modern time onwards, could be conceived as the history of an increasing regimentation of the individual for the profit of the general society and the authorities that be, as was more recently suggested, in rather different terms, by Norbert Elias (1939) and Michel Foucault (1994). When Horkheimer (1967) wrote about these issues, without the help of his friend Adorno, he separated instrumental reason from reason *tout court*. Foucault, of course, being a man of his time, did not believe in any reason at all, except as a negative factor of control (in spite of using it, rather successfully, in his

own work). He did believe in the (momentary) success of action in the street. It is not clear, however, whether a systematically organized genocide, such as that accomplished by the Nazis, is necessarily worse than a genocide without any clear systematic plan, such as appear to have been the more recent genocides realized in former Yugoslavia and in Rwanda. Postmodern critics, who point to the fact that rational techniques, whose origin they tend to place in the Enlightenment, have been put to all kinds of unethical ends, forget that, without the Enlightenment, there would be no one around to criticize these techniques, because, without the Enlightenment, these killings would be accepted as a matter of course, as one ethnic group defending itself or expanding its territory at the expense of another group.

When Husserl was proud of being part of the Enlightenment tradition, and of putting phenomenology at its service, he was, I believe, thinking of quite a different aspect of this tradition, and one which is, I believe, more essential. In his famous essay, Kant described the Enlightenment as the process by means of which human beings manage to liberate themselves from their self-occasioned state of minority (Kant, 1974). No doubt, emerging from a century of coffee-houses and political clubs (cf. Sennett, 1977), even the solitary Kant in Königsberg may have been harbouring thoughts about politics (as he certainly did, in our sense of the term, in the case of the ever unfashionable theme of peace), but there can be no doubt that he had a much wider cultural range of change in view. Unfortunately, the liberation of human beings from the state of minority, as all other Enlightenment precepts, has since then been understood too exclusively in a limited political sense (as most clearly is the case in *Habermas' [I checked *The Chicago Manual of Style* and it turns out both traditions as regards possessives are acceptable]*1995 work); and since it has long since been clear that representative democracy is representative of nothing (as has recently, at least in Sweden, been realized even by some of the elected representatives themselves, at the occasion of the passing of the laws limiting personal integrity on the Internet), the contribution of the Enlightenment has not been appreciated to its due value.²⁹

Thus, for instance, concepts such as the bourgeois public sphere (Habermas, 1962) misconstrue history. No doubt the creation of the public sphere was at least partly facilitated by the advancement of the Third Estate during earlier centuries, the vanguard of which was at the time the class of wealthy capitalists, simply because they had the economical means to out-weight the traditional power of the landed classes. However, until the end of the French Revolution, the Third Estate comprised all social groups that were neither nobles nor clergy. As for the consequences of the public sphere, they were, and still are, (in part) beneficial, as far they go, to all of the Third Estate, which now is more or less co-extensive with humankind, although, now as then, the access to the sphere is regimented by hard social facts deriving from

29. Of course, there is only a limited political sense to us, not to Kant. To him, as to many important figures of the Enlightenment, representative democracy may have seemed a fantastic (even Utopian) idea (but to others, who were rather elitist, the idea would be rather frightening), which would open up an arena of general rational discussion. For complex reasons (the age-old power games, the development of the media, and so on), things turned out differently.

economical and other kinds of political power. However, if the public sphere only comprises the debates in the Parliament, the writings in the daily papers, and the discussions taking place in the coffee-houses (Sennett, 1977), nowadays no doubt substituted by blogs, Facebook pages, and Twitter contributions, then I am not sure that the Enlightenment was really worth-while. If we understand the Enlightenment as Kant did, however, and like the principle actors involved in the process known by that name, such as Voltaire and Diderot, and, later on, Destutt de Tracy, Cabanis, Degérando, and so on, then the whole point of the public sphere was the creation of a space where rational discussion was possible, far from the prejudices created by all sorts of traditional opinion, whether it was based on religious, political, or any other point of view (cf. Gusdorf, 1978; Rosenfeld, 2001). In this sense, the public sphere, rare as it is in the real world, is a space where rational discussion comes to its fore.

And in this sense, it is something to defend, because, as Husserl intimated, it has only emerged once in history, in Europe, and although it is a tradition that has had a lot of difficulty surviving also in Europe, it seems clear that elsewhere, something of the kind was apparently not even possible to conceive. Perhaps there is no reason to be proud of being European: Rather, we who live in Europe should be happy that something fantastic happened on the way from the zoo, which, so far, did not occur in other cultures. However frail its existence, the emergence of rationality in Europe is another European miracle, perhaps not entirely unconnected to, but not obviously explainable from, the more historically researched theme of the origin and development of Capitalism in Europe (Jones, 2003). This is why Husserl, at the time, talked about a crisis in the European sciences. From this point of view, already at the time and certainly now, the middle classes of Mexico, Turkey, and so on, are as European as we are. When Arab immigrants in European countries (no doubt rightfully) complain about their maltreatment opposing Islamic to Christian values, they are completely mistaken (unless they happen to be living in the United States, where the idea of [the?] crusades still seems to be alive): what we have, even those of us who don't know anything about history, is really Enlightenment values.

This is important, because what the Enlightenment is really about is creating the possibility for rational discussion about anything whatsoever, with no limitation set by religious, political, or other ideological conceptions. Contrary to what Habermas suggests, these kinds of debates are not particularly geared to politics (in the present-time sense of party consensus), for the kind of rationality which may be applied to political life is very remote from the actual life of the people, as is clear from the election results even in countries where corruption and violence do not play any important part, and when rational approaches to politics have been tried out, as in the former Soviet Union and similar countries, the result has not been particularly impressive. At the other end of the ideological spectrum, most of the so-called science of economics has been dominated by the ideal type of rational man, which, within economics itself has only in the last few years come in for criticism, by for instance the recent Nobel prize winner Paul Krugman, although for everybody outside of economics, the capitalist idea of the market regimented by free and rational choice

cannot but appear, even before the recent depression, as a paradox without any hope of (rational) resolution. I do not say any of these things in order to criticize politics and economics, but only to rescue rationality from their spell.

The scene where the issues of rationality are really played out, Husserl and Peirce would agree, is that of the sciences. It was, in the end, Husserl's conviction that the natural sciences needed phenomenology to be fully rational. Though Husserl never said so, as far as I know, a similar phenomenological grounding is also needed for the human and social sciences—that is, the (primary) semiotic sciences. But phenomenology, in this sense, is merely an outgrowth of a rational—Enlightenment—view of life. The Enlightenment is a process that has hardly begun.

Rationality, in this sense, is a process that is always on the way to something better. It takes place within the Peircean “society of researchers” [I need to know what you are referring to here. If I leave it unmarked (plain text) it would refer to the existing group of Peirce scholars (people like you). However, if you mean the imaginary, infinite group working for an infinite period of time that he refers to, then this is the incorrect term. Or at least when I put this term into the Collected Papers database I get zero hits. Italics would be used to present his terminology, so I need that term to be the right one. If the correct term is elusive and it is this latter sense you intend, then perhaps more descriptive wording is needed.], which, in this respect, is equivalent to the Husserlean *Ich-Gemeinschaft*. It is a rationality in search of the ever escaping *Evidenz*, or, according to a rather apocryphal interpretation of Peirce, of the unattainable final interpretant. In this sublunary world of our existence, rationality precisely means this: ever to strive for better knowledge, while having the criteria to determine that what we know now is at least somewhat closer to the truth than what we knew yesterday. In those sciences of which I have a close acquaintance, such as linguistics and semiotics, this is certainly not a fact at the present historical moment. This is exactly why cognitive semiotics needs to be phenomenologically conceived.

Acknowledgements

Although I have long been on the way to applying some kind of meta-theoretical considerations on what I have been doing for so long, in particular since the start of my present work in the *Centre for Cognitive Semiotics* (A programme financed at Lund University since the beginning of 2009 by the Tercentenary Found of the Swedish National Bank), many of the issues to which I direct my attention in the present essay have been prompted by questions posed to me by Søren Brier. However, if this essay is, in particular at the beginning, uncharacteristically centred on my own persona, in the sense of being very much concerned about what I have written before, as an anonymous reviewer pointed out, this is due to the challenge set by Brier. This essay also incorporates parts of earlier articles, on the occasion of which I received useful comments from Jordan Zlatev and Chris Sinha. For valuable comments on the present article, I want to thank Jordan Zlatev and an anonymous reviewer.

References

- Bermúdez, J. L. (2005). *Philosophy of psychology: A contemporary introduction*. New York: Routledge
- Bouissac, P. (1999). *Semiotics and the science of memory*. Paper presented at the conference on Semiotics and the European Heritage, Dresden, February 1999.
- Brentano, F. (1924-1928). *Psychologie vom empirischen Standpunkt*. Leipzig: F. Meiner.
- Bühler, K. (1934). *Sprachtheorie: die Darstellungsfunktion der Sprache*. Jena: Gustav Fischer
- Calvino, I. (1983) *Palomar*; Torino: Einaudi.
- Cassirer, E., (1942) *Zur Logik der Kulturwissenschaften*. Göteborg: Elanders.
- Dennett, D. C. (1987). *The intentional stance*. Cambridge, MA: The MIT Press.
- Dreyfus, H. L. (1992). *What computers still can't do: A critique of artificial reason*. Cambridge, MA: The MIT Press.
- Colapietro, Vincent (1989). *Peirce's approach to the self: A semiotic perspective on human subjectivity*. New York: State University of New York Press.
- Coseriu, E. (1978) *Teoría del lenguaje y lingüística general*. Madrid: Gredos.
- Daddesio, T. C. (1995). *Of minds and symbols*. Berlin: Mouton de Gruyter.
- Deacon, T. (1997) *The symbolic species: The co-evolution of language and the brain*. New York: Norton.
- Donald, M. (1991). *Origins of the modern mind*. Cambridge, MA: Harvard University Press.
- Donald, M. (2001). *A mind so rare*. New York: Norton.
- Eco, U. (1988). *De los espejos y otros ensayos* (C. Moyana, Trans.). Barcelona. Lumen. [Spanish translation of *Suglie specchi e altri saggi*. Milan: Fabri 1985].
- Eco, U. (1995). *The search for the perfect language*. Oxford: Blackwell.
- Elias, N. (1939). *Über den Prozess der Zivilisation: soziogenetische und psychogenetische Untersuchungen*. Basel: Haus zum Falken.
- Espe, H. (1983a). Empirische Analyse visueller Zeichen: der Einfluss der Belichtungsdauer bei der Vergrößerung auf die affektive Bedeutung von Schwarz-Weiss-Fotografien. In M. Krampen (Ed.), *Visuelle Kommunikation und/oder verbale Kommunikation* (pp. 92-121). Hildesheim: Olms Verlag/Hochschule der Künste.
- Espe, H. (1983b). Realism and some semiotic functions of photographs. In T. Borbé (Ed.), *Semiotics unfolding. Proceedings of the second congress of the International Association for Semiotic Studies, Vienna 1979* (vol. III, pp. 1435-1442). Berlin: Mouton.
- Ferris, M. (2002). *Historia de la hermenéutica* (A. P. Cortés, Trans). Mexico City: Siglo XXI editores. (Italian original: *Storia dell'ermeneutica*. Milan: Bompiani, 1988).
- Fodor, J. (1987). *Psychosemantics*. Cambridge, MA: The MIT Press.
- Foucault, Michel (1994). *Dits et écrits*. Paris: Gallimard
- Galan, F. (1985). *Historic structures: The Prague School project, 1928-1946*. London: Croom Helm
- Gallagher, S. (2005). *How the body shapes the mind*. Oxford: Clarendon Press.
- Gallagher, S., & Zahavi, D. (2008) *The phenomenological mind*. New York: Routledge.
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall
- Gibson, E. (1969). *Principles of perceptual learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Gibson, E., & Pick, A. (2000). *An ecological approach to perceptual learning and development*. Oxford: Oxford University Press.
- Gibson, J. J. (1966). *The senses considered as perceptual systems*. Boston: Houghton Mifflin Co.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston: Houghton Mifflin Co.
- Gibson, J. J. (1982). *Reasons for realism* (E. Reed & R. Jones, Eds.). Hillsdale, NJ: Lawrence Erlbaum.
- Goodman, N. (1968). *Languages of art*. London: Oxford University Press
- Greimas, A. J. (1970). *Du sens*. Paris: Seuil
- Greimas, A. J. & Courtés, J. (1979). *Sémiotique: Dictionnaire raisonné de la théorie du langage*. Paris: Hachette.
- Gurwitsch, A. (1957). *Théorie du champ de la conscience*. Bruges: Desclée de Brouwer.
- Gurwitsch, A. (1974) *Phenomenology and the Theory of Science*. Evanston: Northwestern University Press.
- Gusdorf, G. (1978). *Les sciences humaines et la pensée occidentale*. 8, *La conscience révolutionnaire: les idéologues*. Paris: Payot
- Habermas, J. (1962). *Strukturwandel der Öffentlichkeit: Untersuchungen zu einer Kategorie der bürgerlichen Gesellschaft*. Neuwied: Politika.
- Habermas, J. (1995). *Theorie des kommunikativen Handelns*. Frankfurt: Suhrkamp
- Haser, V. (2005). *Metaphor, metonymy, and experientialist philosophy: Challenging cognitive semantics*. Berlin: Mouton de Gruyter.
- Hjelmslev, L. (1943). *Omkring spogteorins grundlæggelse*. Copenhagen: Akademisk Forlag.
- Hjelmslev, L. (1959). *Essais linguistiques*. Copenhagen: Travaux du cercle linguistique de Copenhague.
- Hjelmslev, L. (1973). *Essais linguistiques II*. Paris: Minuit.
- Hoffmeyer, J. (2005). *Biosemiotik: en afhandling om livets tegn og tegnenes liv*. Charlottenlund: Ries. (English translation: *Biosemiotics: An Examination into the Signs of Life and the Life of Signs*. The University of Scranton Press of Scranton, Pennsylvania, 2008)
- Horkheimer, M. (1967). *Zur Kritik der instrumentellen Vernunft: aus den Vorträgen und Aufzeichnungen seit Kriegsende*. Frankfurt am Main: S. Fischer.
- Horkheimer, M. & Adorno, T. (1947). *Dialektik der Aufklärung*. Amsterdam: Querido

- Husserl, E. (1913). *Logische Untersuchungen*. Tübingen: Max Niemeyer.
- Husserl, E. (1950). *Cartesianische Meditationen und Pariser Vorträge*. *Husserliana: Gesammelte Werke. Bd 1*. Haag: Nijhoff.
- Husserl, E. (1954). *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie: eine Einleitung in die phänomenologische Philosophie*. *Husserliana: Gesammelte Werke. VI, 2. Aufl.* Haag: Nijhoff
- Husserl, E. (1962). *Phänomenologische Psychologie*. *Husserliana: Gesammelte Werke IX*. The Hague: Nijhoff.
- Husserl, E. (1980). *Phantasie, Bildbewusstsein, Erinnerung*. *Husserliana: Gesammelte Werke XXIII*. The Hague: Nijhoff.
- Itkonen, E. (1978). *Grammatical theory and metascience: A critical investigation into the methodological and philosophical foundations of 'autonomous' linguistics*. Amsterdam: Benjamin
- Ivins, W. (1953) *Prints and visual communication*. Cambridge, MA: Harvard University Press.
- Jones, E. (2003) *The European miracle: environments, economies, and geopolitics in the history of Europe and Asia* (3rd ed.). Cambridge: Cambridge University Press.
- Kohák, E. (1989) Preface. In E. Kohák (Ed.), *Jan Patočka. Philosophy and selected writings* (pp. ix-xiv). Chicago: University of Chicago Press;
- Kant, E. (1974). Beantwortung auf der Frage: Was ist Aufklärung? In *Was ist Aufklärung?* Bahr, E. (Hrsg.), 8-16. Stuttgart: Reclam.(Originally published in 1783)
- Krampen, M. (1991). *Children's drawings: Iconic coding of the environment*. New York: Plenum Press
- Lakoff, G. & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York: Basic Books.
- Lindekens, R. (1971) *Eléments pour une sémiotique de la photographie*. Paris: Didier/Aimav.
- Lotman, J. M., Uspenskij, B. A., Ivanov, V. V., Toporov, V. N. & Pjatigorski, A. M. (1975). *Thesis on the semiotic study of culture*. Lisse: The Peter de Ridder Press.
- Merleau-Ponty, M. (1972) *La structure du comportement*. Paris: PUF. 7ème edition 1972. (Originally published in 1942)
- Nelson, K. (1996). *Language in cognitive development: emergence of the mediated mind*. Cambridge: Cambridge University Press.
- Parmentier, E.. (1985) Signs's place in medias res: Peirce's concept of semiotic mediation. In Mertz, E., & Parmentier, R. (Eds.), *Semiotic mediation: Sociocultural and psychological perspectives* (pp. 23- 48). Orlando: Academic Press.
- Peirce, C. S. (1931–1935, & 1958). *The collected papers of Charles Sanders Peirce*. Vols. I–VI [C. Hartshorne & P. Weiss, Eds., 1931–1935], Vols. VII–VIII [A. W. Burks, Ed., 1958]. Cambridge, MA: Harvard University Press. (Citations use the common form: CP vol.paragraph).
- Peirce, C. S. (1998). *The essential Peirce* (vols. I-II, Peirce Edition Project, Ed.). Bloomington: Indiana University Press (Citations use the form: EP Vol., Page).
- Piaget, J. (1945). *La formation du symbole chez l'enfant*. Neuchatel: Delachaux & Niestlé. Third edition 1967.
- Piaget, J. (1967). *La psychologie de l'intelligence*. Paris: Armand Colin.
- Piaget, J. (1970). *Epistémologie des sciences de l'homme*. Paris: Gallimard.
- Prieto, L. (1975a). *Pertinence et pratique. Essai de sémiologie*. Paris: Minuit.
- Prieto, L. (1975b). *Essai de linguistique et sémiologie générale*. Genève: Droz.
- Radnitzky, G. (1970). *Contemporary schools of metascience: I. Anglo-Saxon schools of metascience. II. Continental schools of metascience* (2nd rev. ed.). Gotheburg: Akademiförl.
- Ricœur, P. (1975). *La métaphore vive*. Paris: Seuil
- Rosch, E. (1975). Cognitive representations of semantic categories. *Journal of experimental psychology: General*, 104 (3), 192-233.
- Rosch, E. & Mervis, C. (1975). Family resemblances: Studies in the internal structure of categories. *Cognitive Psychology*, 7, 573-605.
- Rosenfeld, S. (2001). *A revolution in language: The problem of signs in late eighteenth-century France*. Stanford, CA: Stanford University Press
- Saussure, F. (1973). *Cours de linguistique générale*(Edition critique par Tullio de Mauro). Paris: Payot.
- Saussure, F. (1974). *Cours de linguistique générale. Fasc. 4.* (Edition critique par Rudolf Engler). Wiesbaden: Harrassowitz.
- Schütz, A. (1967). *Collected papers I*. The Hague: Martinus Nijhoff.
- Searle, J. (1997). *The mystery of consciousness*. London: Granta
- Searle, J. (1999). *Mind, language, and society*. London: Phoenix.
- Sennett, R. (1977). *The fall of public man*. Cambridge: Cambridge Uiniversity Press.
- Smith, B. (1999). Truth and the visual field, in J. Petitit, F. J. Varela, B. Pachoud, & J.-M. Roy (Eds.), *Naturalizing phenomenology* (pp. 317-329). Stanford: Stanford University Press.
- Smith, B., & Varzi, A. (1999). The niche. *Noûs*, 33 (2), 198-222.
- Sonesson, G. (1978). *Tecken och handling. Från språkhandlingen till handlingens språk*. Lund: Doxa (Dissertation).
- Sonesson, G. (1979). A plea for integral linguistics. In *Papers from the 5th Scandinavian Conference of Linguistics, II* (pp. 151-166). Stockholm: Almqvist & Wiksell International.
- Sonesson, G. (1989). *Pictorial concepts. Inquiries into the semiotic heritage and its relevance for the analysis of the visual world*. Lund: ARIS/Lund University Press.

- Sonesson, G. (1992). The semiotic function and the genesis of pictorial meaning. In E. Tarasti (Ed.), *Center/Periphery in representations and institutions. Proceedings from the Conference of The International Semiotics Institute, Imatra, Finland, July 16-21, 1990* (pp. 211-156). Imatra: Acta Semiotica Fennica.
- Sonesson, G. (1993). Pictorial semiotics, Gestalt psychology, and the ecology of perception. *Semiotica* 99 (3/4), 319-399.
- Sonesson, G. (1994). Prolegomena to the semiotic analysis of prehistoric visual displays. In *Semiotica*, 100 (3/4), 267-312.
- Sonesson, G. (1996). An essay concerning images. From rhetoric to semiotics by way of ecological physics. *Semiotica*, 109 (1/2), 41-140.
- Sonesson, G. (1997). Approaches to the Lifeworld core of visual rhetoric. *VISIO*, 1 (3), 49-76.
- Sonesson, G. (1998). On the notion of text in cultural semiotics. Σημειωτική. Trudy po znakovym sistemam. *Sign System Studies*, 26, 83-114.
- Sonesson, G. (2001) From Semiosis to Ecology. In A. Quinn (Ed.), Cultural cognition and space Cognition/Cognition culturelle et cognition spatiale [Special issue]. *VISIO*, 6 (2-3), 85-110.
- Sonesson, G. (2006a). *Current issues in pictorial semiotics. Lecture one: The quadrature of the hermeneutic circle.* First conference of a series published online at the Semiotics Institute Online. Retrieved October 30, 2009 from <http://www.chass.utoronto.ca/epc/srb/cyber/Sonesson1.pdf>
- Sonesson, G. (2006b) The meaning of meaning in biology and cognitive science. A semiotic reconstruction. *Sign System Studies*, 34 (1), 135-213.
- Sonesson, G. (2007). From the meaning of embodiment to the embodiment of meaning. In T. Ziemke, J. Zlatev, & R. Frank (Eds.), *Body, language, and mind* (pp. 85-110). Berlin & New York: Mouton de Gruyter.
- Sonesson, G. (2009). New considerations on the proper study of man — and, marginally, some other animals. *Cognitive Semiotics*, 4 (Spring), 134–169.
- Sonesson, G. (In press a) Semiosis and the Elusive Final Interpretant of Understanding. In *Semiotica*, 169, 2010.
- Sonesson, G. (in press b). Semiosis beyond Signs. On a Two or Three Missing Links on the Way to Human Beings. To be published in the *Acts from Missing Links Conference, Copenhagen, November 22nd-23rd 2007*.
- Sonesson, G. & Zlatev, J. (2008) Conclusions of the SEDSU project. In Sinha, C., Sonesson, G, & Zlatev, J. (Eds.), *Signing up to the human.* (In preparation)
- Stjernfelt, F. (2007). *Diagrammatology. An investigation on the borderline of phenomenology, ontology, and semiotics.* Dordrecht: Springer.
- Spiegelberg, H. (1956). Husserl's and Peirce's phenomenologies: coincidence or interaction. *Philosophy and Phenomenological Research*, 17, 164-185.
- Suchman, L. A. (1987). *Plans and situated actions: The problem of human-machine communication.* Cambridge: Cambridge University Press.
- Thompson, E. (2007). *Mind in life: biology, phenomenology, and the sciences of mind.* Cambridge, MA: Belknap (Harvard University Press)
- Tomasello, M. (1999) *The cultural origins of human cognition.* Cambridge, MA: Harvard University Press.
- Tomasello, M. (2008) *Origins of human communication.* Cambridge, MA: The MIT Press.
- Varela, F., Thompson, E. & Rosch, E. (1991). *The embodied mind: cognitive science and human experience.* Cambridge: The MIT Press.
- Vico, G. (2004). *Opere di Giambattista Vico. 8. La scienza nuova 1730.* Bologna: Il Mulino
- Von Uexküll, J. (1973) *Theoretische Biologie.* Frankfurt: Suhrkamp. (Originally published in 1928.) **Is not cited in text. Delete?**
- Vygotsky, L. (1962) *Thought and language.* Cambridge, MA: The MIT Press.
- Yates, F. (1964). *Giordano Bruno and the Hermetic tradition.* London: Routledge & K. Paul.
- Yates, F. (1966). *The art of memory.* London: Routledge & K. Paul.
- Zahavi, D. (2003). *Husserl's phenomenology.* Stanford, CA: Stanford University Press.
- Zlatev, J. (2003). Meaning = Life (+ Culture). An outline of a unified biocultural theory of meaning. *Evolution of communication*, 4 (2), 253-296.
- Zlatev, J. (2005) What's in a schema? Bodily mimesis and the grounding of language. In B. Hampe (Ed.), *From perception to meaning: Image schemas in cognitive linguistics* (pp. 323–342). Berlin: Mouton de Gruyter.
- Zlatev, J. (2007). Embodiment, language and mimesis. In T. Ziemke, J. Zlatev, & R. Frank (Eds.), *Body, language and mind: Vol. 1. Embodiment* (pp. 297-338). Berlin: Mouton de Gruyter.
- Zlatev, J. (2008). The co-evolution of intersubjectivity and bodily mimesis. In J. Zlatev, T. Racine, C. Sinha, & E. Ikonen (Eds.), *The shared mind: Perspectives on intersubjectivity* (pp. 215-244). Amsterdam: John Benjamins Publishing Company.
- Zlatev, J. (2009). The semiotic hierarchy: Life, consciousness, signs and language. *Cognitive Semiotics*, 4 (Spring), 170–201