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# The Phenomenological Road to Cognitive Semiotics

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## Abstract

Like M. Jordan, who discovered in his old age that he had always been talking prose, I realized a few years ago that I have been doing cognitive semiotics my whole life. In my 1978 dissertation I argued for an «integral linguistics», meaning both that linguistic theory should be conceived within a wider semiotic framework, and that we should abandon the «autonomy postulate», according to which theoretical models must be independent of empirical findings, which dominated both linguistics and semiotics at the time. When you build theory with the help of a phenomenological method, there is a much shorter distance between theory and experience, because phenomenology is empirical attention to consciousness. Much later I became acquainted with Paul Bouissac's description of semiotics as «meta-analysis», which «consists in reading through a large number of specialised scientific publications/.../ in one or several domains of inquiry, and of relating the partial results within a more encompassing model». Cognitive science is for the most part also a kind of meta-analysis. Nevertheless, semiotics has interest in adopting the practice of cognitive science that consists in submitting its own questions to empirical study. The essential difference between cognitive science and semiotics, however, resides elsewhere, in the point of view taken in the construction of the encompassing model. In semiotics, the point of view that determines the construction of the model is meaning in the widest sense of the term. In cognitive science it is cognition, but in a sense itself redefined by the approach, first, during the reign of the computer metaphor, as everything in the mind which may be simulated on a computer, and then, with the later brain model, as everything which can be detected as occurring in the brain. Semiotics, on the other hand, has generated its own reductionist models from within, most notoriously those of Saussure and Peirce. To avoid reductionism, it will be argued, Husserlean phenomenology, rather than the Peircean brand, is a more suitable method to employ in the study of meaning.

The purpose of cognitive semiotics is to combine the theories and results of semiotics and cognitive science, perhaps, most notably, the emphasis on different kinds of meaning characteristic of semiotics, and the interest in evolution and development, as well as the empirical methods, which can be encountered in cognitive science. But something is needed to bring such strange bedfellows together. This, I submit, is phenomenology, less, as we shall see, of the Peircean kind, than that stemming from Husserl and his followers. In the constellation of phenomenological cognitive semiotics, phenomenology enters, not as a substantive domain, but as a method. In what follows, a method will be taken to be a series of operations that 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.

## 1. PHENOMENOLOGY WITHIN A PLURALITY OF METHODS

Jordan Zlatev (2009: 179) has argued for what he calls a «triangulation» of methods from the perspectives of what are usually called ‘subjective’, ‘intersubjective’ and ‘objective’ methods», or, in other terms, of First-person, Second-person, and Third-person methods (Also cf. Thompson 2007: 303ff, 338ff; Gallagher & Zahavi 2008: 13ff). Different methods are used to obtain different kinds of knowledge. First person methods, as a matter of course, are not adequate for describing the world as conceived by the natural science. Phenomenology is simply not in competition with experimental studies. As Zlatev (2009: 174) 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». This is, to my mind, a fundamental observation.

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) the «same» object or situation, but the kind of knowledge yielded will always be different. 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 neuropsychology (cf. Thompson 2007: 329ff, 349ff, etc.), where phenomenological reports are put in relation to the results of brain scanning.

The other point is just as important. Since 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 itself 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.

It is important to observe specifically (as was noted above in the course of another argument) 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 determining 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. Formally, ideation is very similar to commutation (to use Hjelmslev's term for a procedure well-known to early 20<sup>th</sup> 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 Chomskyan grammar, to decide whether they were still grammatical or not, are of the same general kind. Basically, 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.

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. In this sense, we should rather

say that linguistic methods such as commutation and grammaticality judgements are part of phenomenological psychology.

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, rather peculiar situations (notably when a primate have been more or less adopted as a human child), Second person methods may be useful to some extent. 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 compare human beings and other animals, as well adults and infants, if we also have Third person knowledge also about the former. Moreover, there is the possibility of doing «front-loaded phenomenology» (Gallagher & Zahavi 2008:38ff), 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.

## 2. THE NATURE OF THE PHENOMENOLOGICAL METHOD

Phenomenology is a method of description. 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. Consciousness is consciousness of something — and that thing 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 (in fact, it is in some way co-conscious, but not as the subject of an explicit intentionality). 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 organised 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 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: 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 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 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.

In spite of the terminology often used by Husserl (such as «Wesenschau»), phenomenological results do not present themselves in the form of any kind of revelation, given in a single instance. Rather, the phenomenological methods suppose 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 even 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. 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.

### 3. THE PHENOMENOLOGY OF HUSSERL AND PEIRCE

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). Peirce himself claims to have taken the term from Hegel, but as has been pointed out by Stjernfelt (2007:441, 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. 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 phaneros and generalizing its observations, signalizes several very broad classes of phaneros; 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. Indeed, we have seen that Peirce did just that is his earlier description of this «study». Peirce's text, however, continues in the following way:

...then proves, beyond question, that a certain very short list comprises all of these broadest categories of phaneros 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 categorizes 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 realise 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. This recursive triadic organization is a forgone 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, which are

the meanings which are supposed to recur all through the hierarchy of triads. Thus, viewing Peirce's phenomenology from the end 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.

#### 4. 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. But 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. 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. 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 be triadic, 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, of course, 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: II: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: 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 himself 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). Indeed, Peirce himself 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, just as, as I suggested some time ago (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 characterising

sufficient and necessary features. And of spite of what is, 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 sounds very much like what Vygotsky (1962) would have called «chain-concepts», characteristic of small children and what at the time was known as «savages». Since Wittgenstein presented them as «family concepts», spread all over ordinary language, these terms have been somewhat rehabilitated. Eleanor Rosch conceived the idea of the prototype, 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 beyond phenomenology. 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. Although this may be considered a Third person approach, it only makes sense from a First person point of view. Rosch & Mervis (1975) reflects on the relations between the prototype and Wittgenstein's family concept, arguing that the difference consists in the former being related to a central example, while the second lacks any such instance. Elsewhere, Rosch (1975) erroneously identifies her prototype concept with the Weberian ideality. The incorrectness of this is shown by Sonesson (1989:71f): whereas the prototype is defined by the «example of a category» and include as other members other items being at more a less great a distance from this central instance, an ideality is an artificial creation, which is exaggerated in relation to reality and may contain contradictory properties, often projected onto time and/or space.

At first, one may tend to see in the Peircean categories some kind of «chain-concepts» or «family concepts», but I think a few of the members of the «chains» can really be considered to make up the prototype, or perhaps really the ideality, 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 idealities. In the case of Firstness, this central idea seems difficult to grasp, but it certainly has something to do with fleetingness or streaminess. 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 is the ideality 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)

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 Calvino's 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 determined predominantly by the third category treats of 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 be 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.

## 5. CONCLUSION

I have tried to show that phenomenology is a necessary complement to traditional empirical methods in the construction of cognitive semiotics. In so doing, I have also suggest that phenomenology is no substitute for empirical experiments and studies, nor vice-versa. In particular, I have been concerned to demonstrate that, from the point of view of Husserlean phenomenology, that conceived by Peirce is only one possible variety, and that, in each particular case, the presuppositions of the latter, notably its trichotomies, must support the tests derived from the former.

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