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The Concept of Metaphor according to the philosophers C. S. Peirce and U. Eco – a tentative comparison

In loving memory of Egon
Sørensen (1938-2010)

Abstract

According to both Peirce and Eco metaphor can play an important role in the generation of sense and new knowledge. When Peirce defined metaphor as a hypoicon he was a scholastic realist. Before his "epistemic break" in the nineties Eco, on the other hand, was a nominalist - even though Eco was highly inspired by Peirce´s ideas of signifying construction as an unlimited sign-exchanging process. This fundamental epistemological difference necessarily gives some evident differences in the perception of metaphor. Some of these differences will be presented in the following article.
Keywords: Peirce, Eco, metaphor, similarity and cognition.

Introduction

The present article offers a tentative comparison between the concepts of metaphor as put forth by the philosophers Charles S. Peirce (1839-1914) and Umberto Eco (1936-). The motivation for the comparison lies in the fact that according to both philosophers metaphor enhances the process of representation, invention and interpretation; or metaphor can play an important part in the generation of sense and new knowledge. In his theory of metaphor, Eco draws heavily on Peirce`s concepts of the interpretant and infinite semiosis. This even though Eco before his epistemic break in the late nineties distinctively, figures as a structuralist thinker (though in opposition to the anthropologist C. Levi-Strauss) and a nominalist. The mature Peirce on the other hand was a scholastic realist when he defined the metaphor as a hypoicon. This fundamental epistemological difference necessarily gives some evident differences in the perception of metaphor. Some of these differences will be presented below.

A conceptual condition concerning the comparison

The metaphorical signifying process is defined by Peirce and Eco from within two very different semiotic horizons. Firstly (Peirce), a phanero-semeiotic horizon where the metaphorical sign is related to (i) an explicitly modal schematics and where (ii) an all-encompassing realism is at work: a potential qualitative mode of being, a factual mode of being, and, finally, a law-like mode of being are admitted to being real; consequently, their being is the case independently of what anyone happens to think, wish or feel (cf. EP II: 179[1] pp; Fisch 1986: 173). Secondly (Eco), a (methodological) structural-semantic horizon where (i) the content of the metaphorical sign is emphasized and described as a structural relationship within a (more or less orderly) system of cultural entities, semantic markers; thus, not said that these structural relationships are coagulated, or fixed and defined once and for all, on the contrary, these form open or dynamic series - in full agreement with Peirce's idea of the interpretant and the infinite semiosis. And (ii) where a nominalistic notion is fundamental: the signs which we use when referring to our surroundings – natural or cultural - are purely conventional and are not depending on a world of real phenomena. In turn, the properties of these phenomena and the laws which govern them have no real mode of being, but, rather, they depend on the ways in which language or other sign systems define things.

Peirce and Eco on metaphor and similarity

In relation to both Peirce and Eco, it seems difficult to discuss the metaphorical sign and signifying process without referring explicitly to a concept of similarity. However, according to the two gentlemen, not surprisingly, the similarity is made possible by a number of features and characters that are quite different. Peirce defined the metaphor as a sign of the iconic or hypoiconic type; more accurately, the definition regards the way in which metaphor takes part of the

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[1] Reference is to Vol. and page in Peirce, C. S. (1992): The Essential Peirce. Vols. 1-2, Houser, N. & Kloesel, C. (ed.). Bloomington: Indiana UP.

category of Firstness (cf. CP: 2277[2]). Hence, the similarity of the metaphor is related to a series of (phaneroskopic-) qualitative characteristics. In his lecture "The Seven Systems of Metaphysics", where Peirce used his categories to characterize seven systems of metaphysics by which categories are admitted as important metaphysico-cosmical elements, he could conclude that he himself was an: "…Aristotelian of the scholastic wing, approaching Scotism, but going much further in the direction of scholastic realism." (CP: 5.77n1). From being a nominalistic thinker Peirce had thus become what Fisch (1986) very aptly names: "… a three-category realist." (: 195). In a draft to a letter addressed to Russell c.1908, Peirce described his (new) position in the following way:

> Next, I ask, what are the different kinds of reals? They are 1st those whose being lies in the substance of the thought itself, mere ideas, objects logically possible, the objects of pure mathematical thought for example. 2nd those whose being consits in their connexions with other things, existents, reacting things. 3rd those whose being consists in their connecting two or more other things; - laws, generals, signs, etc. In short the real is ultimately undeniable. (MS L387b, 00350[3])

Thus, Peirce argued for the reality of all three categories claiming that each is really operative in nature; not only law or habit, which will regulate events in the future and actual events, or fact, are admitted to be real, Peirce also understood the potential quality as having a real being. In an attempt to describe the similarities between his own realism and James' emphasis on real possibilities in "The Dilemma of Determinism "(1884), Peirce concluded that: "The possible is a positive universe." (CP: 8.308). To the extent that there are real Thirds, there must also be real Firsts. So Peirce rejected the nominalist view that the possible

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[2] Reference is to Vol. and paragraph in Peirce, C. S. (1931-35): The Collected Papers. Vols. 1-6, Hartshorne, C. & Weiss, P. (ed.). Cambridge Mass.: Harvard UP. Peirce, C. S. (1958): Collected Papers. Vols. 7-8, Burks, A. (ed.). Cambridge Mass.: Harvard UP.
[3] MS refers to Peirce`s *Microfilmed Manuscripts* (1964-1971), made available by the Department of Philosophy, Harvard University, and listed according to Robin`s catalogue (1967).

is simply and solely what we do not know not to be true. The quality is still possible or is what it is as possibility without being actualized or made intelligible. The possible is not identical with what the actual makes it to be. If we think so, we make ourselves, according to Peirce, guilty of, as he wrote in The Logic of Mathematics: "an Attempt to develop my Categories from within" (c. 1896), putting the cart before the horse: "…let us not put the cart before the horse, nor the evolved actuality before the possibility as if the latter involved what it only evolves." (CP: 1.422). And compared to Thirdness, the potential quality is characterized by, as Peirce wrote in "Minute Logic" (1903-04): "a…mode of being, the characteristic of which is that things that are real whatever they really are, independently of any assertion about them." (CP: 6.349).

Therefore, Peirce`s definition of metaphor should be understood in the light of his extreme realism, and with affinity to this we can say that the relation of similarity in metaphor emanates from a real possibility; also remembering that when Peirce was defining the hypoicon metaphor, he was indeed writing about its "mode of Firstness". Thus, it is Firstness which is the foundation of the signification-interpretation process of the metaphor; or the metaphorical similarity depends on Firstness for its generation of sense and new knowledge. Even the most imaginative metaphor must emanate from and reflect Firstness. To Peirce, similarity cannot be invented, it can only be discovered; there is not a state of "anything goes" concerning the invention and interpretation of the metaphorical sign. The phaneroscopical quality, which the metaphor possesses qua representamen, has its distinctive mode of being before the metaphor represents a given object and before a given consciousness discovers the similarity as being a similarity in the metaphorical process of semeiosis. As Peirce wrote concerning to the representative character of the iconic representamen in his article "Syllabus of Certain Topics of Logic" (c. 1903):

The Icon has no dynamical connection with the object it represents; it simply happens that its qualities resemble those of that object, and excite analogous sensations in the mind for which it is a likeness. (CP: 2.299)

Consequently, consciousness does not create the salient quality of the metaphorical similarity. What happens is that the metaphorical representamen takes part in a relation of similarity with an object and that the consciousness perceives this relation as being a similarity; the metaphorical representamen as such precedes this relationship, or is "really unconnected" with both the object of the sign and the consciousness which is discovering the similarity. In the article "A Neglected Argument for the Reality of God (1908), Peirce furthermore gave the following description of the first universe of experience familiar to all of us – namely Firstness:

Of the three Universes of Experience familiar to us all, the first comprises all mere Ideas, those airy nothings to which the mind of poet, pure mathematician, or another might give local habitation and a name within that mind. Their very airy-nothingness, the fact that their Being consists in mere capability of getting thought, not in anybody's actually thinking them, saves their Reality. (CP: 6.455)

Consequently, the metaphorical idea or the qualitative potential is real – sui generis – with close affinity to Peirce's realistic viewpoint; even if the idea only has its distinctive existence when it is actualized, is made an event, or becomes something particular (Secondness) that can be included in some general category in a process of reasoning (Thirdness). Or maybe better put: also the indexical-referential and the symbolic conventional is at play in the invention and interpretation of the metaphorical similarity – to be meaningful a metaphor must be related to a universe of discourse, being fictive or real (a condition which relates to what might be called the representative condition of the

metaphor), and represent something for someone, i.e. be based on an idea of a representamen, which is made possible by discoursive registers and code-parameters (a condition which relates to what might be called the interpretative condition of the metaphor). How ever that may be, it is nevertheless from a real, objectively given Firstness that the metaphorical similarity grows; that is, it is Firstness which motivates its growth. (For a similar conclusion, see Haley 1988)

To Eco, who tries to pin down the (structural-) semantic features of the metaphorical similarity, the metaphor emerges from the paradigm, the code, and the content-system. And thus the metaphor can be defined as a substitution of a term for another on the basis of a relation of semantic-positional similarity (cf. Eco 1979: 79). To Eco, the metaphorical similarity has to be found within the code; it is a similarity concerning inherent relations between semantic markers, that is, interpretants within a semantic network – a network which in principle takes on a global format.

Eco stresses that similarity has nothing to do with presumed ontological relations or the structure of reality itself. Similarity is coherent, not motivated, and depends only on a set of rules and conventions of a symbolic character. Or in other words, similarity is determined culturally – with close affinity to the nominalistic thesis. Consequently, if we want to be able to analyze and understand the concept of similarity we must not make any recourse to the world of objects and things; similarity is a purely semiotical matter according to Eco. This is also in consistence with the fact that Eco does not grant the referent any place in his definition of the sign; he even speaks of the "referential fallacy", that is, the erroneous assumption that the content of an expression has anything to do with a corresponding referent. Eco does not want to deny the existence of objects in an extra-semiotic world, but what he wants is to avoid making an ontological commitment of any sort. In "the Role of the Reader" (1979) (abbr. RR), he writes:

> Within the theory of codes it is unnecessary to resort to the notion of extension, nor to that of possible worlds; the codes…set up a ´cultural` world which is neither actual nor possible in the ontological sense; its existence is linked to a cultural order, which is the way in which a society thinks and speaks. (Eco 1979: 61)

Eco stresses that an ontological commitment only will cause the sign function to become related to something, which it should not, the referent. Whether the referent is considered as being an object, a thing, or an idea, the referent should not be a subject of investigation within the framework of a theory of signification. Instead, Eco decides that similarity must depend on: "the fact that in the code there exist already fixed relations of substitution which, in some way, link the substitute entities to those substituted for" (Eco 1979: 79). And in connection to this, in his work "Semiotics and the Philosophy of Language" (1984) (abbr. SPL), he specifies the relation of similarity in the following way:

> By similarity between two…semantic properties we mean the fact that in a given system of content those properties are named by the same interpretant, whether it be verbal or not, and independently of the fact that the objects or things for the designation of which that interpretant is customarily used may manifest perceptual "similarities" (Eco 1984: 113)

It is only due to the fact that there exists a universe of content, a given s-code as structure, organized into a network of interpretants (in coherence with Peirce's concept of "infinite semeiosis" and "the global semantic network", whose format is the "Q-model" [4]), interpretants which decide similarity (and with that,

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[4] The "Model-Q" refers to Eco's dubbing of M. R. Quillians "Model for a semantic memory"; (Eco 1976: 122); Eco's "Model-Q" is an n-dimensional model of "Linguistic creativity"; in solidarity with Peirce`s concepts of interpretant and infinite semiosis, Eco says that his reader should imagine: "…a sort of poly dimensional network, equipped with topological properties, in which the distances covered are abbreviated or elongated and each term acquires proximity with others by means of short-cuts and immediate contacts." (Eco 1976: 124).

differences) between features, that a given entity metaphorically can substitute another. In SPL, Eco says:

> The…metaphor is a function of the sociocultural format of the interpreting subjects` encyclopedia. In this perspective, metaphors are produced solely on the basis of a rich cultural framework, on the basis, that is, of a universe of content that is already organized into networks of interpretants, which decide (semiotically) the identities and differences of the properties. (Eco 1984: 127)

Or put in another way: similarity concerns a purely semantic operation within the code, it is a similarity between interpretants or cultural units; the similarity depends on a cultural agreement, on how features are defined by the aid of language (or another sign system), not on how things are, or are presumed to be – "in themselves". In connection to this we may also remember Eco's controversy with Levi-Strauss (cf. Eco 1971: 350 pp) and his dismissal of the "system of systems", or the a priori natural code, which, by virtue of analogy, is motivated by the trans-humane world. The generation of meaning is – according to Eco, independent of any motivation, let alone "naturalization", rather we face, as M. McCanles (1977) writes in his lucid article: "Conventions of the Natural and Naturalness of Convention: "…a process of inventing and communicating meaning wherein "meaning" itself is wholly internal to the process itself" (McCanles 1977: 55). According to Eco, we do not need any ontological system of essences or the like which make up the condition of signification and communication. In "A Theory of Semiotics" (1976) (abbr. TSE) Eco states the following:

> Within the framework of a theory of codes it is unnecessary to resort to the notion of extension, nor to that of possible worlds; the codes, insofar as they are accepted by a society, set up a cultural world which is neither

actual nor possible in the ontological sense; its existence is linked to a cultural order, which is the way in which a society, thinks speaks and, while speaking, explains the purport of its thought through other thoughts. (Eco 1976: 61)

Precisely therefore, Eco can argue that the similarity of metaphor must be based on contingent, cultural conventions, and that the similarity concerns how entities are similar within a given semantic network. In short, Eco argues against – with M. Caesar's (1999) words from the fine work: "Umberto Eco. Philosophy, Semiotics and the Work of fiction":…any privileging of the idea of language, under the shield of metaphor, as expressing things outside language" (Caesar 1999: 72). According to Eco, the metaphorical similarity can be invented, not only discovered. However, this does not mean that "anything goes", concerning the invention and interpretation of the metaphor. The semantic network is characterized by having what seems to be "Swedish stall-bars…", which thanks to their: "…grill of parallel and perpendicular bars" (Eco 1979: 78), is structuring the series of interpretants selected by both the maker and the addressee of the metaphor. In TSE Eco gives an example of this process. Confronted with a new and intriguing metaphor the addressee senses the legitimacy of the similarity only vaguely or indistinctively and attributes to the maker of the metaphor superior intuitive abilities. But in fact, the maker of the metaphor has just had a quick glimpse of the paths which the semantic network allows him to cross when making the relation of similarity:

When this process is rapid and unexpected and joins up very distant points, it appears as a "jump" and the addressee, though confusedly sensing its legitimacy does not detect the series of steps within the underlying semantics chain that join the apparently disconnected points together. As a result he believes that the rhetorical invention was the product of an intuitive perception, a sort of illumination, or a sudden revelation, whereas

in fact the sender has simply caught a glimpse of the paths that the semantic organisation entitled him to cross. What was for him a rapid and distinct look at the possibilities of the system becomes for the addressee something vague and indistinct. The latter attributes to the former a superior intuitive capacity, whereas the former knows that he had a more imediate and articulated view of the underlying structure of the semantic system. (Eco 1976: 284)

Hence, the imaginative effort establishing the metaphorical similarity is "always-already anticipated" or foreseen within the code, or is nothing but, as Eco writes in RR:

…a rationation that traverses the paths of the semantic labyrinths in a hurry and, in its haste, loses their sense of their rigid structure. The creative imagination can perform such dangerous excercises because there exist "swedish stall-bars" which support it and which suggest movements to it. (Eco 1979: 78)

Eco on metaphor and metonymi and Peirce on metaphor as one of three hypoicons

If we take a closer look at the "Swedish stallbars", we will, according to Eco, be able to see how the structures of these "stallbars" are made up from relations of contiguity. And since the metonymy is constituted by the rhetorical rule that a term is substituted by one of its interpretants or semantic markers based on a relation of contiguity, the metonymical process of substitution and its relation of contiguity must underlie every metaphorical semiosis and hence its relation of similarity. As Eco writes in "RR":

…each metaphor can be traced back to a subjacent chain of metonymic connections which constitute the frame work of the code and upon which

is based the constitution of any semantic field, whether partial or (in theory) global. (Eco 1979: 68)

Consequently, the metaphor is founded on the metonymy; or maybe put in a more precise way: Eco makes contiguity more privileged than similarity; contiguity precedes similarity. This is so because Eco is inclined to, as e.g. Culler (1981) contends in his fine work "The Pursuit of Signs, Semiotic, Literature, Deconstruction", identify "…the metonymy with the code, with language itself as a system of arbitrary signs which depend for their identity on the relations with one another." (Culler 1981: 200).

In "Syllabus of Certain topics of Logic" (c. 1903), Peirce wrote that, according to the mode of Firstness of which they partake, hypoicons can roughly be divided into three:

Those which partake of simple qualities, or First Firstnesses, are images; those which represent the relations, mainly dyadic, or so regarded, of the parts of one thing by analogous relations in their own parts, are diagrams; those which represent the representative character of a representamen by representing a parallelism in something else, are metaphors. (CP: 2.277)

Maybe Peirce is inviting us to think that the differences among the three hypoicons is one of degree and not of type? Maybe the three hypoicons are points on a scale of abstraction (cf: Jappy 1995: 217 pp.)? According to Peirce, the three hypoicons are related phaneroscopically to "the ordinary experience"; hence, the image is "First Firstness", the diagram is "Second Firstness", and it seems safe to assume that the metaphor must be a "Third Firstness". Since every Third, in some way or another, involves both a Second and indirectly a First, maybe the hypoiconic metaphor also builds logically and hierarchically upon the diagram and the image, respectively? So maybe in a Peircean perspective, as with Eco, other sign functions must be present to some degree in any

metaphorical form of semeiosis? But the good question is, of course, how? Following an interesting suggestion made by M. C. Haley in his excellent work "The Semeiosis of Poetic Metaphor" (1988), we can say that the three hypoicons form a trichotomic continuum. In this continuum of hypoiconicity, metaphor functions as a Third First, or as a "final cause", being a "whole calling out its parts" (cf. CP: 1.220), "calling out" diagrams and images, that is. In the precise words of Haley:

> My reading of the hypoicons suggests a hierarchical relationship among the three: The "metaphor" grounded in a universal archetype, would logically include…innumerable possible diagrams an, which would in turn suggest many possible images. Or perhaps the relation among the three hypoicons may be more aptly conceived as a continuum of iconicity, suggesting in *every* iconic experience there is at least *some* degree of metaphoricity, diagrammaticality, and imagery. (Haley 1988: 34)

Thus, the three hypoicons enter into a sort of reciprocal relation; we also remember how Peirce insisted on the triadic interrelation of the representamen, object and interpretant when he was accounting for the action of genuine semeiosis. In our case the diagram (Second Firstness) and image (First Firstness) are both generated or "called out" by the metaphor (Third Firstness), which on the other hand must rely on these two modes of signifying for its functioning; e.g. the analogizing of the diagram, which enables structure, and the concrete and immediate sensory particularity of the image. Or, as Haley very aptly puts it: "[metaphor] needs the rigor of the Peircean diagram to give it structure (to our minds), the quality of the Peircean image to give it color (to our senses)" (Haley 1988: 46). Thus, the hypoiconic metaphor seems to be a good example of how Thirdness, according to Peirce is: "…what it is owing to the parts which it brings into mutual relationship." (CP: 1.363). But of course the metaphor cannot be reduced to a sequence consisting of diagrams and images; the diagram and

image cannot exhaust the semeiotic potential of the metaphor – the metaphorical similarity is more general, more abstract than the analogy of the diagram and the simple qualities of the image, respectively. So, as with Eco, we find in a Peircean perspective (if we stretch our imagination of little) that metaphor naturally and necessarily represents a blending of different sign functions; but of course with the hypoicons we hit phaneroscopical bedrock (cf. Jappy 1996: 220) and a concern for "the representative quality or character of the representamen", not a study of metaphor where the metaphor emerges from the paradigm, the code, and the content-system.

Furthermore, Eco's fundamental conclusion that contiguity precedes similarity is a conclusion that Peirce would not agree upon. Rather, according to Peirce, the opposite must be the case. This we can deduce from at least two perspectives: Firstly, from the way in which Peirce described the relation between the three fundamental (psychological) principles of association and the sign-types – icon, index and symbol. As Peirce wrote in a non-identified text fragment:

> The association of ideas is said to proceed according to three principles – those of resemblance, of contiguity, and of causality. But it would be equally true to say that signs denote what they do on the three principles of resemblance, contiguity, and causality. There can be no question that any thing is a sign of whatever is associated with it by resemblance, by contiguity, or by causality. (CP: 1.351)

Since the iconic representamen represents its object by virtue of similarity, and the indexical representamen represents its object by virtue of contiguity (while the symbolic representamen represents it object by virtue of conventionality, or by virtue of habit) and we, according to Peirce, can notice a regular progression of one, two and three in the order of representamens, similarity must precede contiguity. That similarity must precede contiguity according to Peirce, we can

also deduce, quite fundamentally, from Peirce's view on the process of evolution. In one of his letters to his old student Christine Ladd-Franklin, Peirce wrote the following:

> In this chaos of feelings, bits of similitude had appeared, been swallowed up again. Had reappeared by chance. A slight tendency to generalization had here and there lighted up and been quenched. Had reappeared, had strengthened itself. Like had begun to produce like. Then even pairs of unlike feelings had begun to have similars, and then these had begun to generalize. And thus relations of contiguity, that is connections other than similarities, had sprung up. (CP: 8.318)

Thus, the first result of evolution is a continuum of sense qualities: a transition from a state of non-determined potentiality to a state of determined potentiality, and so we have the possibility for similarity. Only hereafter actuality and fact follow, and by that the possibility for contiguity. Hence, similarity according to Peirce precedes contiguity in the process of evolution. These two different emphases, similarity as preceding contiguity (Peirce) and contiguity as preceding similarity (Eco), reveal two very different views on language and reasoning and of course on metaphor. In Peirce's view, language is a device for the expression of thought, perceptions and in the end truth. While, according to Eco, what language expresses is simply and solely a result of contingent, conventional relations and a system of mechanical processes – e.g. Eco writes about how he accepts:

> a description of language which depends upon a model susceptible to translation in binary terms", and the conclusion is the following: "In other words, it is possible…even though for experimental purposes only for limited parts of the Global Semantic System…to construct an automaton capable of generating and understanding metaphors. (Eco 1979: 69)

Eco and Peirce on metaphor as a cognitive mechanism

But both Peirce and Eco believe that the metaphor is an important vehicle for semantic innovation: the metaphor is not merely a rhetorical device or a decorative ornamentation, primarily to be found within literary and poetic discourses (a view the metaphor often has been associated with during its long and rather complicated history). On the contrary, metaphor permeates all forms of discourse and expression and takes on a privileged position in the ongoing development of signifying processes, being structural to the very process itself. Thus, according to Peirce, the metaphor is "rather helpfull" (CP: 2.222), e.g. in the process of discovering new symbols, or when already known symbols are being endowed with new meaning. It is tempting to say that the metaphor in a Peircean perspective is important when the meaning of symbols is being stimulated to grow. And growth is inherent in symbols, and the hypoicon is very important regarding the very same growth:

> Symbols grow. They come into being by development out of other signs, particularly from icons, or from mixed signs partaking of the nature of icons and symbols. We think only in signs. These mental signs are of mixed nature; the symbol-parts of them are called concepts. If a man makes a new symbol, it is by thoughts involving concepts. So it is only out of symbols that a new symbol can grow. Omne symbolum de symbolo. A symbol, once in being, spreads among the peoples. In use and in experience, its meaning grows. (CP: 2.30)

Furthermore, Peirce stressed in the text: "The Short Logic" (c. 1893):

> If a logician had to construct a language de novo--which he actually has almost to do--he would naturally say, I shall need prepositions to express the temporal relations of before, after, and at the same time with, I shall

need prepositions to express the spatial relations of adjoining, containing, touching, of in range with, of near to, far from, of to the right of, to the left of, above, below, before, behind, and I shall need prepositions to express motions into and out of these situations. For the rest, I can manage with metaphors. (CP: 2.290, n.1)

In order to fulfil the Kantian requirement of locating objects in space, time and motion (cf. Factor 1996: 229), all that a logician needs to construct a language from scratch is indexical representations in form of prepositions - and the hypoicon metaphor. To Peirce then, the metaphor is not just an added force to the (philosophical) language, but is one of its constituent forms. Or rather, to Peirce, language is (grosso modo) inherently metaphorical, a fact which the infinite metaphorical contributions to the institutionalized poly-semi bear witness to. The metaphor fills out gaps in the lexicon of the language, it serves the principle of economy, and it delivers names to new experiences, thoughts and ideas. In a letter to the philosopher Victoria Lady Welby, in which Peirce among other things discussed the difficult problem of "word-formation", he remembered how the metaphor had served him well long time ago, in his attempt to invent a language:

…how as a boy I invented a language in which almost every letter of every word made a definite contribution to its signification. It involved a classification of all possible ideas; and I need not say that it was never completed. I remember however a number of features of it. Not only must the ideas be classified, but abstract and psychical ideas had to be provided with fixed metaphors; such as lofty for pride, ambition etc. (PW 95[5])

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[5] PW refers to Semiotic and Significs: The Correspondence between Charles S. Peirce and Victoria Lady Welby. (1977) Ed. By Charles S. Hardwick. Bloomington: Indiana University Press.

In a passage from the article "The Ethics of Terminology" (c. 1903), Peirce also stressed the importance of the structuring role of metaphor in the production of sense and meaning, when he wrote about the metaphor as a possible way in which symbols can originate:

> Every symbol is, in its origin, either an image of the idea signified, or a reminiscence of some individual occurrence, person or thing, connected with its meaning, or is a metaphor.(CP: 2.222).

But, is the metaphor only one of three possible ways in which symbols can originate, it, however, occupies a prominent place among these, since, as the Peirce-scholar C. Hausmann advocates for in his lucid article: "Peirce and the interaction view of metaphor" (1996):

> It should be noted that the first and the second ways in which a symbol may originate seem to indicate that new significance does not occur. The first, imagining, and the second, reminiscing, both signify on the basis of something antecedent. The third origin of symbols, metaphor, then, must be the only way to open the possibility that a symbol can…have a new significance. (: 197)

Thus, it appears that it is only by virtue of the metaphor that the symbol can be endowed with new significance and meaning. None of the two other ways in which a symbol can originate, i.e. by virtue of "imagining" and "reminiscing", can provide such an important semiotic effect, since both depend on already established relations of meaning. On the other hand, a metaphor can be understood as a new relation of meaning.

To Eco it is in particular thanks to the metaphorical process of signification that new pertinences can be created. Signs, objects and interpretants, which

until now seemed at a distance within the semantic network, are suddenly being brought together in a relation of similarity – with the aid of the metaphor. Put in another way, the designation of the metaphor enables: "…something that culture has not yet assimilated", and thereby the invention of new: "…combinatory possibilities or semantic couplings…" (Eco 1979: 79). Furthermore, Eco stresses how the metaphor can contribute to the institutionalized poly-semi, since the new semantic coupling may become a "catachresis", or simply a "dead metaphor". This happens, gradually, by virtue of habit; the metaphor is being absorbed into the language code and becomes an ordinary symbol.

With affinity to the potential creative-semantic function of metaphor, both Peirce and Eco see metaphor as being structural to the production of knowledge and understanding; in short, metaphor can have a cognitive function. The metaphor understood as a new way of using language may thus cause a new way of thinking, or *is* in fact a new way of thinking. Peirce stressed the important cognitive function of the metaphor in the following way:"…a pure idea without metaphor…is an onion with a peel" (EP II: 392), and he showed how it is through the discovery of similarities between e.g. two different universes of experience that it is possible to gain new knowledge. In a non-identified text fragment he wrote:

> We are going to shock the physiological psychologists, for once, by attempting, not an account of a hypothesis about the brain, but a description of an image which shall correspond, point by point, to the different features of the phenomena of consciousness. Consciousness is like a bottomless lake… The meaning of this metaphor is that those which [are] deeper are discernible only by a greater effort, and controlled only by much greater effort…The aptness of this metaphor is very great. (CP: 7.553-4)

Eco on his part in "SPL" notices how:

> …the metaphor posits…"posits in a philosophical sense, as "in putting before the eyes"…proportion that, wherever it may have been deposited, was not before the eyes; or it was before the eyes and the eyes did not see it. (Eco 1984: 102)

The question is of course what it is that the metaphor is about, what can it tell us, teach us, or make visible? And here, not surprisingly, there is an important difference between Peirces and Eco's understanding of what kind of insight the metaphor can bring about. To Peirce, the metaphor must be something by knowing, from which we can know something more, since it seems to be a very fine example of what a representamen is, or at least what a representamen could be (cf. CP 8:322). The metaphor can give us insight into a new potentiality, a potentiality which never before has been formulated or instantiated verbally or by means of any other sign system; a potentiality which nevertheless has a real being, sui generis. Or in nuce: the metaphor can give us an insight into the dynamics of the real; and in the long run maybe an insight into the very truth itself. Thus, to Peirce the iconic representamen has more to do with: "…the living character of truth than have either Symbols or Indices." (CP: 4.531). Maybe someone will point out that Peirce in particular must have had the diagrammatic icon in mind - and not the metaphorical hypoicon. And it is true indeed that Peirce often accentuated the use of the visual diagram in the ongoing processes that converge with the generation of meaning and the acquisition of knowledge and truth. But we pay attention to the fact that Peirce wrote "iconic representamens". Thus, the iconic metaphor must also possess a "great distinguishing property", namely, a capacity to reveal the "unexpected truth" (CP: 2.279). And if we look into how Peirce described the relation between poetry, a form of discourse in which the metaphor is omnipresent, and a very powerful, semeiotic mechanism and science and truth, this conclusion seems to

be, at least partly, supported. In one of Peirce's "Lectures on Pragmatism" (1903), he said:

> Bad poetry is false, I grant; but nothing is truer than true poetry. And let me tell the scientific men that the artists are much finer and more accurate observers than they are, except of the special minutiae that the scientific man is looking for. I hear you say: "This smacks too much of an anthropomorphic conception." I reply that every scientific explanation of a natural phenomenon is a hypothesis that there is something in nature to which the human reason is analogous; and that it really is so all the successes of science in its applications to human convenience are witnesses. They proclaim that truth over the length and breadth of the modern world. In the light of the successes of science to my mind there is a degree of baseness in denying our birthright as children of God and in shamefacedly slinking away from anthropomorphic conceptions of the universe. (CP: 1.315)

Although the metaphorical hypothesis does not have the same technical form as the scientific hypothesis, e.g. the exactness which enables strict falsification (cf. Haley 1988), it still must concern the same reality. Therefore, it must be presumed that the metaphor can contribute to the development of reasoning, knowledge and communication (the metaphor enables us to identify more and more parts of the dynamical object). Peirce even wrote: "…that which was poetically divined shall be scientifically known." (CP: 1.213). Furthermore, despite the fact that the scientific hypothesis and the metaphor in many ways are very different, they are both structurally and categorically related to the process of abduction (cf. Anderson 1987). In the Harvard Lecture "Pragmatism and Abduction" (1903), Peirce characterized the abductive inference in the following way:

The abductive suggestion comes to us like a flash. It is an act of insight, although of extremely fallible insight. It is true that the different elements of the hypothesis were in our minds before; but it is the idea of putting together what we had never before dreamed of putting together which flashes the new suggestion before our contemplation. (CP: 5.181)

By virtue of the abductive inference, ideas that are new can be created. Thus, until now unknown relations between ideas can be established and new knowledge can be acquired, although only tentatively. In the "Nation", where Peirce reviewed William James' famous work "The Principles of Psychology" (1891), he gave the abductive inference the following logical form:

A well-recognized kind of object, M, has for its ordinary predicates P[1], P[2], P[3], etc., indistinctly recognized.

The suggesting object, S, has these same predicates, P[1], P[2], P[3], etc.

Hence, S is of the kind M.

(CP: 8.64)

Provided that metaphor can have a cognitive function, it has to be caused by its ability to bring forth new relations of similarity: since a representamen, [M], represents the representative character of a representamen, an object [S], by aid of similarity, represents an interpretant: "Hence, S is of the kind M". If metaphor can have a cognitive function, and it is routed in the abductive reasoning, this also suggests its semeiosis is related to experience, since the first premise for abduction is the perceptual judgment (cf. CP: 5.16). And as we remember, according to Peirce, experience is our only true teacher. Consequently, the meaning of a metaphor cannot be constituted independently of the body's meeting the world. But it is important to stress as Haley does:

> …it [is not] *only* that our minds and mental structure are partly configured by our bodily experience in nature, and partly by cultural conventions whose schemes we are bound to impose on nature…nature itself is an extension or instantiation of Mind, just as surely as the human mind us another (and thus inherently similar) such extension. (Haley 1999: 437)

Thus, it is not only a cultural and historical body which cognizes, but also an evolutionary body with a special mind. More precisely, it concerns an experiencing body, which has been and is capable of putting forth: "…spontaneous conjectures of instinctive reason" (CP: 6.475), as Peirce wrote in "A Neglected Argument for the Reality of God" (1908). In our ongoing attempts to successfully convert our surroundings into our Umwelt, e.g. in our ongoing attempts to represents these surroundings in a meaningful way, we have developed a sort of ability to make abductive inferences (cf. CP: 1.630; 7.219), and hereby e.g. the opportunity to create cognitive metaphors. The success of abduction, its ability to create cognition, relies upon an affinity or structural analogy between the human mind and matter. In the manuscript "History of Science" (c. 1896), Peirce drew attention to how abduction: "…goes upon the hope that there is sufficient affinity between the reasoner's mind and natures to render guessing not altogether hopeless…" (CP: 1.121), and he further explained this relation in another manuscript entitled "Guessing" (c. 1907):

> There are, indeed, puzzles, and one might well say mysteries, connected with the mental operation of guessing; - yes; more than one. There can, I think, be no reasonable doubt that man`s mind, having been developed under the influence…of nature, for that reason naturally thinks somewhat after nature`s pattern. (CP: 7.39)

Through evolution, the human mind has developed under the influence of nature. Thus, our cognitive habits are defined by virtue of the relation to the

world. Metaphor, as a cognitive mechanism, must be thought of as based on the aforesaid structural analogy. That we can communicate and understand feelings, actions and thoughts by the aid of metaphor, and thereby create new cognitions, must be due to a continuous relation between mind and matter. In Haley´s words:

> In short, to whatever extent we really are capable to understand nature, it is only because our minds really are *like* nature. And it is only within the context of this large likeness that we are capable of understanding ourselves and one another – which clearly includes the expression of our thoughts and feelings to one another through…metaphor. (Haley 1999: 435)

The same analogy exerts pressures and constraints regarding what similarities we can put forth metaphorically. The metaphorical meaning cannot exclusively be rooted in social convention. The similarity is motivated and realistically determined because experience, body, sign, abduction and guessing instinct are parts of the same intricate relation.

According to Eco, every discourse regarding metaphor, as he writes in "SPL", should begin with (tentatively) answering the following question - and thereby retracing the classical opposition between phusis and nomos - is language:

> …(a) by its nature, and originally, metaphorical, and the mechanism of metaphor establishes linguistic activity, every rule or convention arising thereafter in order to discipline…the metaphorizing potential [?] or (b) [is] language (and every other semiotic system) a rule-governed machine, a predictive machine that says which phrases can be generated and which not…a machine with regard to which metaphor constitutes a

breakdown…but at the same time the drive toward linguistic renewal [?]. (Eco 1984: 88)

Eco endorses the latter point of view, and stresses how it is only possible to speak about the metaphor metaphorically, or that we have imposed a kind of circularity, which veils what we are speaking about, if we accept that language per definition is organized metaphorically. Perhaps after all a peculiar point of view coming form some one, who speaks as Tejera (1997) writes in his fine article "Peirce, Eco and the Necessity of Interpretation" (1977):

> …metaphorically about theory and semiotic phenomena so often that he cannot say he has dealt with uniform literality, even on his own understanding of the literality of the pronouncements among which his metaphors are embedded. (Tejera 1997: 157)

Be that as it may, here we will focus on the fact that, according to Eco, the process of metaphorization is important for the generation of sense and new knowledge; in metaphor, the creative potential of language (or any other sign system for that matter) sees through. In order to understand this, we have to return shortly to an important feature regarding the code. According to Eco, the code not only allows us to put forth "semiotic judgments", or judgments which are foreseen by the code, e.g. "all humans are mortal" (if that was the case, in the end all our messages would be tautological), but also judgments which are factual, e.g. "Umberto Eco is mortal", and "meta-semiotic judgments", judgments by which we can call the very legitimacy of the code itself into question (Eco 1979: 67). Of course, the question is how the code, as Eco writes in "RR":

> …which in principle ought to generated the speaking subject`s entire cultural system, is able to generate both factual messages…and above all

messages which place in doubt the very structure of the code itself. (Eco 1979: 67)

The answer is that the code allows what Eco designates "rule-governed creativity"; that we are able to endow already known cultural entities with new semantic markers is due to the fact that the code has an arbitrary character, and this arbitrary character of the code opens to creativity; e.g. when a new expression refers to a new content as a response to a new experience. And this is exactly where the metaphor enters the picture. As Eco writes: "the first example of such creativity is provided…by the use of metaphors." (Eco 1979: 68). The metaphor can cause: "…a new semantic coupling not preceded by any stipulation by the code…but which generates a new stipulation by the code." (Eco 1979: 69). Put in another way: it is by the use of the metaphor that we can make: "…shortcuts within the process of semiosis" (Eco 1984: 129), a shortcut in the process of signification, which can cause creation of new patterns within the semantic network, or a restructuring of the code itself, e.g. in the form of an expansion of the code or an improvement of its potentials. Consequently, to Eco, the metaphor is an important semiotic vehicle, not simply and solely an: "…embellishment". When originally and creatively used they in fact can change the way in which the content is taken into consideration." (Eco 1976: 279). Since the semantic system, according to Eco, organizes the way we think about the world or how we see things, and since the metaphor can rearrange the very same semantic system, metaphor can also rearrange how we think about the world, or it can create parts of our reality, so to speak. Thus, metaphor becomes endowed with a cognitive function. It can provide us with insights into similarity, a similarity between interpretants, or cultural units, or, as Eco writes, metaphor can make us see: "…the subtle network of proportions between cultural units." (Eco 1984: 102). The metaphor can make us understand the semantic system in a new and perhaps better way, how the system is structured and, most importantly, how it can be restructured; e.g. we get a glimpse of the pathways of

semiosis which the semantic organization – sanctioned by the underlying chains of metonymical substitutions – allows us to see; whether or not the pathways are already open or they have to be opened by the use of metaphor. Eco claims that the most interesting metaphors are those where: "…the cultural process, the dynamics of semioisis, shows through." (Eco 1984: 102), a qualitative criteria which is closely related to the degree of interpretative openness of the metaphor, or how far: "…a metaphor allows us to travel the pathways of the semiosis and to discover the labyrinths of the encyclopedia." (Eco 1984: 126-127). Thus, an open metaphor is a complex rhetorical figure, which does not allow semiosis to grind to a halt immediately. On the contrary, the open metaphor develops in a potentially infinite sequence of signs activating interpretative trajectories in the signifying process by relating sections of the sign network that may be very distant from each other. The more open the metaphor is, the more it opens to new and innovative interpretative possibilities within the code, or the semantic network, to the creation of new worlds, new perspectives, by its telling of what is possible. But even though Eco underlines the value of metaphor in the growth of reasoning, knowledge and communication, this does not entail that he wants to endow it with a specific aletic function: "…seeing the metaphor as a cognitive tool does not mean studying it in terms of truth values." (Eco 1984: 89). Whether or not it is possible to make a true logical operation by using a metaphor does not concern Eco. Because, as he stresses, the one who uses a metaphor says something about a "thing", which every body can see that it is clearly not. Or put in another way: "…someone [who] creates a metaphor…is…,literally speaking, lying…" (Eco 1984: 84). Altogether, Eco warns against wild exaggerations concerning the semiotic potential of metaphor; true metaphor can provide new cognitive models, can create new world views etc., but it should not be privileged over the instruments which can be found within the disciplines of logic. Knowledge still has a authorized channel in science, while the real force of metaphor is to add something new; something possible; not something radically different, but something beyond the actual, something

which adds to our understanding. An understanding concerning what Eco designates the encyclopedia or the "library of libraries". Eco writes in "SPL":

> …the truth is that the metaphor is the tool that permits us to understand the encyclopedia better. This is the type of knowledge that the metaphor stakes out for us. (Eco 1984: 129)

Thus, thanks to capacity of metaphor to identify relations of similarities, we can navigate in the encyclopedia – e.g. make short cuts within the encyclopedia, and thereby further our knowledge. That is, we can further our knowledge about the total cultural registrations concerning science, philosophy, artistic discourse, religion, mythology and daily discourse etc. etc. – in the verbal languages and the sign systems generally. This, according to Eco, is exactly the value of metaphor, enhancing the process of reasoning, communication and knowledge concerning the encyclopedia, and thereby being structural to the very process itself.

Final interpretants

Although semiosis is potentially infinite, locally, the signifying process of cause grinds to a halt; also the semioisis of this article. However, before the semantic network is left for now, let us try to sum up the result of the article in the following short points:

Charles Peirce vs. Umberto Eco	
(0) A Phanero-semeiotic definition of the metaphor; a realistic notion.	A structural-semantic definition of the metaphor; a nominalistic notion.
(i) The metaphor as category: sign relation.	Sign function.
(i.i) The nature of relation: motivated; similarity originates from a real	Conventional; similarity emanates from a code, a system of content, a

Firstness; the quality of the similarity has real being before the metaphorical semeiosis; the similarity is motivated and realistically determined because experience, body, sign, abduction and guessing instinct are part of the same intricate relation.	network of interpretants.
(ii) The metaphor enters into a semeiotic relation with the other two hypoicons, diagram and image; the relation regards interdependency, or the relation is reciprocal.	The metaphor interacts with metonymy; metaphor depends upon a subjacent network of arbitrarily stipulated contiguities, and hence metonymy.
(iii) The function of metaphor: The metaphor is a cognitive mechanism within the process of abduction; the cognitive metaphor can represent the "dynamics of the real", and in the end the very truth.	The metaphor can cause creative couplings within a semantic network; it can point to new similarities between interpretants, cultural units, and consequently cause new insights. The metaphor has a cognitive function recognizing or introducing order within the encyclopedic universe.

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