Special Issue

Semiotics in the United States and Beyond: Problems, People, and Perspectives

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Guest Editors:

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Three philosophical attitudes

The aim of this paper is to discuss some aspects of semiotics related to epistemology. As Sebeok points out (1991b: 2), 'the midmost target of semiotics is ... epistemology, understood in the broad sense of the cognitive constitution of living entities'.

Regarding the relation between living entities and the world around them, three different theoretical positions can be characterized.

(1) One position consists in affirming that there is an external world we call reality, which is independent of us and our minds. This world is single and unitary, so that there is only one right interpretation of it. This reality is tangible, so that our senses provide our contact with it. Things that happen in this world are called natural phenomena and objective facts. Positive knowledge about this reality can be gained through dispassionate and impersonal experimentation or observation of these facts. If we explore this reality free of any previous theory or preconception we are in a position to grasp its truth. On the other hand, any theory can be proved or disproved by contrasting it with experimental or observational data.

We can align on this side some aspects of the doctrines of realism, empiricism, materialism, positivism, phenomenalism, and objectivism.

Empiricism, to take just one aspect, assumes that science relies on observational statements derived from the collection of facts and a careful and objective experimentation. This conception faces various problems. First, objective observation does not exist as such; instead, observation depends on the expectations, experience, and previous knowledge of the observer. Therefore, the pretended 'facts of reality' are not fixed and invariant. Second, experimentation is always performed on the basis of some theory, under some scientific paradigm (Kuhn 1962), which implies specific tools and language; thus experimentation is as fallible as the theory that guides it.
(2) The opposite attitude is to affirm that there is no external world—everything we perceive is a reflection of our mind. The mind creates reality, and it relies only on consciousness and reason. Reality transcends phenomena; the only things we have and can know are mental states. Because of this, knowledge is limited to subjective experience, so there are as many realities as there are individual minds. There is no possibility of universal truth, and any judgment is indefinitely kept in suspense.

We can align on this side some aspects of the doctrines of idealism, subjectivism, and skepticism.

(3) A third position, which is a compromise between the first two, consists in assuming that if there is an external reality we will never know what it is really like, because it is always mediated by our senses and our mind. Thus, we do not have to worry about this matter; the question of the existence of an external ontic reality is neither affirmed nor denied, but simply avoided. There is another kind of reality which is the only kind knowable to us; instead of ‘real’ things, it is made up of signs. In this position, there is no claim for universal truth or universal validity of theories and scientific laws; truth is considered a matter of consensus, and theories and laws are considered valid only within a frame of reference.

This is the position commonly held by relativism, and the one which the doctrine of semiotics has contributed to building and sustaining.

Antecedents of this tripartite characterization of philosophical positions can be found in Peirce (CP 6.24–25) and Sebeok (1991a: 202).

Some conceptions of reality in the sciences

Locke, in his division of the sciences into three types, introduced a branch called semiotics, or the doctrine of signs, ‘the business whereof is to consider the nature of signs, the mind makes use of for the understanding of things’ (1959: II.461). However, this seems to contradict one of the divisions he presents a little earlier on the same page: physica, or natural philosophy, which deals with ‘the knowledge of things, as they are in their own proper beings’. Confront this with a statement Peirce wrote in a letter to Lady Welby about two centuries later: ‘we can never attain a knowledge of things as they are. We can only know their human aspect. But that is all the universe is for us’ (1966: 426).

Peirce, despite being immersed in the positivistic age, expresses that ‘there is no thing which is in-itself in the sense of not being relative to the mind’ (CP 5.311). Inclined to the position he defined as objective idealism (CP 6.25), which can be included in the third type of our initial characterization, Peirce insists that ‘all thought ... must necessarily be in
signs' (CP 5.251). Peirce understands reality in a relativistic way, making it depend ‘on the ultimate decision of the community’ (CP 5.316). He says:

The real ... is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. Thus, the very origin of the conception of reality shows that this conception essentially involves the notion of a COMMUNITY. ... And so those two series of cognition — the real and the unreal — consist of those which, at a time sufficiently future, the community will always continue to reaffirm. (CP 5.311)

The statement of Einstein and Infeld (1938: 313), that the motor of every scientific creation is a belief in the possibility of catching reality (as if it were a unique and incontrovertible thing) with our theoretical constructions, seems somehow ingenuous — particularly given a context in which they demonstrate, with numerous examples, that during the evolution of physics new realities were created, and that the reality created by modern physics is very far from any primitive reality.

Niels Bohr, on the other hand, assumes that scientists do not deal with reality (Sebeok 1991a: 72), and expresses his conception in a maxim repeatedly cited by Sebeok (1991a: 12, 143; 1991b: 26; 1991c: 13): ‘We are suspended in language in such a way that we cannot say what is up and what is down. The word “reality” is also a word, a word which we must learn to use correctly’.

The view from the semiotic paradigm

Various personalities can be cited who support, with more or less different words or points of view, the third of our characterized positions.

Ernst Cassirer defines man as animal symbolicum (1944: 26), signifying that man is confined to a universe of signs.

Jakob von Uexküll develops his concept of Umwelt as a model of the world each organism constructs for himself by means of its sensory equipment. These models of reality, as Sebeok (1991a: 71) explains them, ‘diverge from species to species’ and ‘can be visualized as if they were bubbles within which each creature is imprisoned ... by virtue of its total and unique stock of particular sensory instruments’. Every organism ‘comes alive equipped with its distinctive Umwelt’. Uexküll’s theory presupposes that reality can be found neither outside (in the external world), nor inside (in our minds); instead, it appears in these Umwelten (T. von Uexküll 1987: 148).

Sebeok expresses his own point of view in various ways. He considers that semiotics ‘is not about the “real” world at all, but about complementary or alternative actual models of it’, and that ‘what a semiotic model
depicts is not "reality" as such, but nature as unveiled by our method of questioning' (1991a: 12). Sebeok sees language as a human system which appeared not with the purpose of communication, but with the function of modeling the world (1991b: 184; 1991c: 43). For him, mind is a system of signs, and brain 'a system of signs displayed, for example, as a physical network, or structure, of neurons' (1991c: 133). Using Uexküll's words, Sebeok sets forth his opinion that true reality, which 'lies beyond or behind the nature that physicists, chemists, and microbiologists conceive of in their scientific systems, reveals itself through signs'; these signs are 'therefore the only true reality, and the rules and laws to which the signs and sign-processes are subject are the only real laws of nature' (1991c: 132).

Magariños employs the expression 'real' in the sense of non-significative (1983a: 23) or unknowable, because, as he says (after Peirce, CP 5.310–311), a known object

is already a sign, that is, it exists in a system ... in which it obtains a specific legality (which makes it known and, for this reason, perceptible). If something is purely real, as existing in the world (ontically existing), but it is not a replica of any legality, then it cannot be perceived because nothing drives us to its presence ... and so it is chaos. (Magariños 1983a: 99, my translation)

The pretension of falsificationism (Popper 1962: 40) — that it is possible, in the light of observational data or empirical experience, to reject a scientific theory — must be discarded because the reality revealed in those experiences is not pure; it is already an interpreted perception (experiments are not theory-free), otherwise it would be imperceptible.

Furthermore, different theories are hardly comparable. The problem of incommensurability between theories, set out by Feyerabend (1975), may be compared with that of the untranslatability between languages or, in general, between different systems of signs. Theories, as well as languages (or, more generally, systems of signs), do not stand in the same relationship to the world. Some of them consider things which simply do not exist for others. Objects do not bear inherent properties; each system of signs produces these properties and assigns them to objects. Each system explains its own concepts, which are different and not comparable with the concepts of others. In short, each system inhabits a different world, the world it has built.

The purpose of any scientific theory is not to explain the world, but to build a world — by means of signs — in a way that allows us to behave within it. The value of scientific theories depends more on their internal consistency than on a final coincidence with the unattainable external world.
These problems are not new to contemporary cognitive science. Jackendoff, for instance, declares that he is 'perfectly aware that no science, whatever its protestations of objectivity, is ideology-free'. He considers the reality we know as composed of two parts: the mind’s contribution and the external contribution (1987: xiv). He defines objects not as physical entities, but as things 'as we experience them', a pivotal issue because

we would experience the world very differently if our eyes were sensitive to different wavelengths of electromagnetic radiation, if we were three millimeters tall, or if we had sonar like a bat or a bloodhound’s sense of smell. (1987: 3)

Many other semioticians share basically the same position, as evidenced in their writings. See, among others, Oehler (1979), Shank (1990), and Middendorf (1990).

The 'experience' of vision

Animals and the rest of biological life make use of signs, though man is the only animal which builds languages with signs. The main endeavor of human beings is the creation and utilization of languages, or systems of signs, of many different kinds: verbal, graphic, auditory, gestural, scientific. That some correspondences can be found between different systems of signs is due not to a physical correlation between different phenomena, but to the fact that these phenomena are constructed as signs, and what we find comparable are the processes by which they are built.

Without signs, there is no relationship between the human being and the world around him. He can have no direct access to reality; it is a perception built by the available languages or systems of signs. We see the world not as it 'really' is, but as the signs we are employing allow us to see it. When the system is changed, the 'same' objects look different, characteristics previously unseen become evident, and thus they are not the same objects anymore. So it is clear that objects do not have existence outside any system of signs; they are created by the system to which they belong.

Accordingly, in the field of vision, we cannot assume that things such as forms, colors, textures, and cesias exist prior to and independent of our knowledge of them, and that our task is to observe and classify them. On the contrary, such objects are defined by the theory we use to describe them.

For instance, consider cesia — a phenomenon very few people under-
stand or are able to describe. Visual signs such as gloss, transparence, opacity, translucence, etc. are considered by some authors as modes of appearance of color. But others consider these qualities as separable from color and place them under a new category of visual perception labeled cesia (Caivano 1991). Obviously, this is not a fact which had been standing in reality waiting to be discovered; it was created by the theory, which somehow developed a new model of reality.

In other words, the visual categories we know and establish are not parcels of reality, but categories of knowledge, pure models, like many others devised by man with the purpose of establishing differences in the world, which otherwise would be a uniform emptiness. As Magariños remarks (1983b: 45), knowledge is achievable because it is possible to establish distinctions in the uniform. Only chaos exists in the world, and languages (not just verbal, but any kind of language) impose a certain order on it (Magariños 1983b: 97).

Vision has usually been regarded as providing the strongest contact with the external world, and as a sensory experience that tells the truth of this world. The phrase 'I believe what I can see' typifies this conception. The problem is that seeing is not an incontrovertible experience.

Colors, for example, are not an attribute of objects. The reality of an apple is not to be red. Red, like any other color, is a sign produced by the interaction of a certain physical radiation (light) and a sensory system (vision). If radiation were different, or if our visual system were sensitive to another kind of radiation, apples would not be red.

The visual perception of shapes provides various examples of how previous knowledge or expectation affects what we see. On one hand, we can have two or more possible interpretations for the same 'object' (the same retinal projection). Consider those graphic examples where we can alternatively see: a cube seen from above or from below, a white vase or two black faces, my wife or my mother-in-law, a staircase or an overhanging cornice (Fig. 1). Consider also Figure 2, which can be seen as a rectangle or a trapezoid depending on the interpretation of the image as a three-dimensional representation in perspective (Fig. 2a) or a flat two-dimensional representation (Fig. 2b).

On the other hand, we can have various different retinal projections while seeing them as belonging to a unitary object. When we move around an object, say for example a chair, we have a series of different images of it on our retinas, but we say that it is always the same chair and that it has not changed at all.

These simple illustrations evince that what we 'really' see (that is, the cognition derived from our vision) has little to do with the physical projection on our retinas (which could be considered our closest contact
Figure 1. The same retinal projections can be interpreted as: (a) a cube from above and below; (b) a vase and two faces; (c) my wife and my mother-in-law; (d) a staircase and a cornice.

Figure 2. The same retinal projection can be interpreted as: (a) a rectangle seen in perspective; (b) a trapezoid.

with external 'reality'). In other words, vision is not an objective instrument of knowledge; what we see are not objects as they are, but signs of objects. And signs rely on other signs, and their interpretation can only be referred to other signs, ad infinitum, so that this is the only universe accessible to living organisms.

Note

1. On the correspondences between the perception and organization of sounds and spatial figures see Caivano (1990); on similarities in the analysis of language, vision, and music, see Jackendoff (1987).
References


