Chapter 5

Semiotics is Fundamental Science

Mihai Nadin

Institute for Research in Anticipatory Systems, University of Texas at Dallas, USA & Hanse Institute for Advanced Study, Germany

ABSTRACT

There is no way to acquire, store, and disseminate knowledge other than semiotically. Yet semiotics is hardly acknowledged in science, and not at all as science. Were it not for the fame of a few writers (Barthes, Derrida, and especially Eco), associated more with the semiotics of culture, few would even know that such a knowledge domain exists. In the age of computers, genetics, and networks—all of underlying semiotic condition—semiotics would at best qualify as pertinent to an obscure past, but insignificant for current endeavors. Gnoseologically, there is little to gain from acknowledging the shortcomings of semiotics. Epistemologically, quite a bit is at stake in grounding semiotics among the fundamental sciences. For this to come about, new interrogations become necessary: Why knowledge? What is knowledge? What kind of knowledge? How is knowledge acquired? One way or another, the answer will acknowledge semiotic processes as a necessary factor. The perspective advanced in this chapter relies on an understanding of the living, and, in particular, of the human being, that ascertains anticipation as definitory. The future is made part of the present via semiotic processes. This is significant because in the age of neurons, suggestive of brain activity and of attempts to emulate it, to distinguish between knowledge supporting human activity, embodied in new technologies, and knowledge essential to the unfolding of the living becomes very difficult.

1. PRELIMINARIES

The largely accepted foundation of semiotics as a “sign” discipline explains its accomplishments. But it explains even more the inadequacy of semiotics in affirming itself as a fundamental science. Indeed, being captive to a recursive model, embodied in the sign definition, affects its own credibility as a specific knowledge domain. Those active in physics, and even chemistry, economics, and cognitive science, know that they cannot practice these...
disciplines without mathematics. Of course, language descriptions, such as those utilized for science in its philosophic phase (Aristotle, Plato, Galen, Ptolomy, Bacon, Occam) are an alternative, but only to a certain extent.

The semiotics of the beginnings of science were pretty much disguised as philosophy (Copernicus, Galileo, Leibniz, Descartes, even Kant). The separation of the sciences from philosophy is marked by the constitution of scientific languages: subsets of so-called natural language. Semiotics followed suit, and attempts were made, especially by Peirce, to define a semiotic language. Within this attempt, the sign consolidated its center-stage position. The necessity of scientific languages corresponds to the desire to transform descriptions of reality (such as geography, astronomy, geology, hydrology, etc.) into conceptual tools for operating on models. Moreover, these tools would have to inform activities for making tools that can be used to change reality.

Semiotics has a different knowledge domain. It does not actually deal in changing reality, but in supporting the acquisition of knowledge based upon which human action takes place. It is in this role that semiotics is fundamental. There is a degree of necessity that explains the body of knowledge of particular disciplines. Geography requires specific tools and methods for describing the world in its permanent change. Astronomy and, for that matter, geology and hydrology are by necessity a cognitive reflection of the reality they capture or try to affect. For semiotics to reach the same level of necessity, it would have to reflect the characteristics of the knowing subject, not, as with the sciences, of the known object. Only when semiotics acquires the same degree of necessity as the sciences, but in respect to the process of knowledge acquisition, will conditions be created for complementing the obsession with depth (specialized knowledge) with an understanding of breadth, corresponding to an integrated view of the world. This will further consolidate its condition as fundamental science.

Many attempts have been made to write a history (or histories) of semiotics: biographies of semioticians, history of semantics, history of symptomatology, anthologies of texts relevant to semiotics, and the like. Few would argue against the perception that we have much better histories of semiotics (and semioticians) than contributions to semiotics as such. What can be learned from the ambitious projects of the past is that semiotic concerns can be identified along the entire history of human activity. This is what prompted some authors (in particular, Eco, 1976; as well as Lotman, 1990) to consider culture as the subject matter of semiotics. Initially, semiotic activity was difficult to distinguish from actions and activities related to survival. Over time, semiotic concerns (especially related to language) constituted a distinct awareness of what is needed to succeed in what we do and, furthermore, what it takes to be successful.

Since our aim is the grounding of semiotics in the human activity of knowledge acquisition, we shall examine the variety of angles from which its domain knowledge was defined. In parallel to the criticism of conceptions that have led to the unsatisfactory condition of semiotics in our time, we will submit a hypothesis regarding a foundation different from that resulting from an agenda of inquiry limited to the sign. Finally, we will argue that the semiotics of semiotics (embodied in, for instance, in the organizations dedicated to its further development and in the teaching of semiotics) deserves more attention, given the significance of “organized labor” to the success of the endeavor. We will affirm the grounding of semiotics in the dynamics of phenomena characteristic of the threshold of complexity associated with the living. A more specific grounding, in anticipation as a