

Chapter 14

Cybersemiotics and Epistemology: A Critical Review of the Conditions of “Observation” from Transcendental Semiotics



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Abstract This chapter aims to establish a philosophical discussion about the epistemological conditions of “observation”, from the cybersemiotic transdisciplinary view of knowing. For this purpose, the discussion will be divided into three parts, each one of them with the intention of outlining a conceptual critique that later allows a pertinent justification of the observation from a transcendental semiotics. This work is based on a problem: it seeks to show that a the cybersemiotic point of view, to consider on a foundationalist stance, fails to overcome the epistemological contradictions involved in the contemporary critique of modern philosophy. Hence, the objective on this work is to propose as an alternative the teleological and nominalist attitude of transcendental semiotics, and also as an epistemological principle that allows overcoming problems of the foundationalist. Then, in a first moment, we will seek to establish a critique of the phenomenology of observation from the pragmatic point of view, developed by N. R. Hanson and Richard Rorty. In this direction, the contradictions involved in the definition of knowledge will be shown from the phenomenological (perception without representation) and phenomenological (states of inner consciousness) positions. In general terms, the epistemological problems found in the foundations of knowledge based on observation will be exposed: specifically, the problem of the empirical basis and perception and the question of the mind as an inner space. Then, in a second moment, a characterization of the “observation” and the “observable fact” will be made from the cybersemiotic point of view. In this sense, these concepts will be described from the peircean semiosis, starting from the theoretical link proposed by Søren Brier. Hence, when considering the observation within the sphere of significance, the approaches will show a non-phenomenological characterization of knowledge and, from there, the overcoming of pragmatic critiques towards phenomenology. The closing will allow circumscribing knowledge from a communicative, semiotic and autopoietic

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approach. Finally, and as a contribution to the state of the discussion, the present chapter will make a defense of the cybersemiotic phenomenology of observation but considering the pragmatic conditions of knowledge from a transcendental semiotics perspective. In this sense, the transcendental concepts of truth-consensus and fin-ideal will be used to develop a relevant theoretical field that allows a transcendental justification of the communicative-intersubjective nature of knowledge postulated by cybersemiotics.

Keywords Phenomenology · Observation · Epistemology · Cybersemiotics · Foundationism · Community · Pramatism

14.1 Introduction

The theory of knowledge has a peculiar aspect in modernity: it accepts the ontological commitment implied in the relationship between the subject that knows and the object that is known by the subject. This ontology derives of a realistic position, in which it is not only considered that it is the rational activity of the subject that allows knowing the true nature of the real. It also implies, in a more radical sense, that the subjective determination of the object is a necessary condition to objectively apprehend the empirical reality.¹ In this mode of knowledge, which comes from the philosophy of René Descartes, “the last and only possible criterion of truth beyond which it is no longer possible to go is encrypted. The truth is irrefutable ‘spirit pure and attentive’ concepts only born of the light of reason”² (Cassirer 1998, p. 35).

In the seventeenth century, this position referring to knowledge, would give epistemology a fundamental role in its relationship with science. What for Richard Rorty constitutes “the court of reason”, for Cassirer is the “tribunal of philosophy”. In any case, there is a hierarchical link where regulated philosophandi³ establishes a necessary condition for scientific knowledge. From this perspective, it is possible to generalize the conduct of modern philosophy as the construction of a particular language, whose assumptions are wrapped in philosophical language used by Galileo and Descartes. Within this semantic space, there is a reduction of the philosophical approaches to links between terms and propositions. Trying to describe scientific problems from this point, involves “inductive presuppositions” and

¹ Under this nuance, scientific truth, as a “necessary and universal” proposition / conclusion, would not only be functionally justified within a system of philosophical language; it would also imply the concrete possibility of accessing the objective knowledge of nature.

² The author of this chapter on the basis of the edition carried out the translation of this quotation in Spanish. The consulted original quotation is as follows: “se cifra el último y único posible criterio de verdad más allá del cual ya no es posible ir. La verdad consiste en los conceptos indubitables del ‘espíritu puro y atento’ nacidos exclusivamente de la luz de la razón.”

³ Term used by I. Newton in *Philosophiae naturalis principia mathematica* (quoted by Cassirer 1998, p. 103 and ss.).

“empirical generalizations”. Now then, it is appropriate to affirm that “both Locke, like Berkeley, Leibniz and Hume, as well as Kant, suppose in a general way that the scientific knowledge rests within the framework of the laws, whose logic is a necessary way” (Buchdahl 1969, p. 62).

In the scientific context of this time, from modern physics and in general all natural sciences, answer to a “supreme law” of scientific inquiry: the law of causality. Assuming causality as a guiding principle, modern sciences exposes the need to find a complete causal explanation; the latter consists on entering the phenomenon until you reach the last cause. This procedure of scientific knowledge is based on the mechanistic conception of the universe, where the last cause (first cause) acts in relation to an immutable law. But, in the philosophical context, knowledge would have a foundationalist character: the certainty of the cartesian “*cogito ergo sum*” would place the thought as a subjective state of inner consciousness, distancing itself from the problematic character⁴ of reason as a human faculty. Therefore, the position of the subject is clear: the mind as subjective internal space would be the foundation for the construction of scientific knowledge. This concept of consciousness, not only as “subjective internal space”, but also as an undoubted principle of knowledge, would initiate a process of philosophical speculation that the philosopher Richard Rorty called “epistemological turn” (2010).

In summary, the idea of a subjective internal space as the foundation of knowledge and the notion of causality⁵ as a mechanistic principle of nature, allows us to glimpse a peculiar ontology of observation in modern science: the observer subject, as the foundation and cause of knowledge of nature, determines the experiential variety of the object observed from its own internal structure (mind, soul, spirit). In this sense, scientific knowledge in the modernity, would rest on the distinction between the internal (subjective) space and external (objective) reality. In this distinction two problematic arguments are assumed: on the one hand, the object’s reality, independent of agency or activity of the subject; and on the other hand, the existence of *a priori* subjective rules-principles, which constitute laws of knowing, and determine the contingency of the object of experience. These last assumptions lead us to consider relevant epistemological problems in the relationship between observation and knowledge, namely, the assumption of an external reality (the subject observer) allows establishing empirical evidence (sensitive data of experience) as an epistemological condition of observation. Thus, a theory or hypothesis, to prove its truth, must be able to be contrasted with the available empirical evidence

⁴It is problematic because in medieval and ancient thought, the rational is the result of an exercise of the human intellect that distinguishes it from animals, but it is, at the same time, an exercise of the divine intellect. This leads us to questions about the distinctive features of human versus divine reason, and whose answers can lead to an unjustified, existentialist position.

⁵For Rorty (2010), the “causal metaphor” refers to the capacity of the “transcendental ego” to constitute nature. The cognoscente subject, in the free play of his faculties, has the intelligence to determine the order of the natural. Therefore, although there is something in the experience that is given to the subject; it is their faculties and representations that constitute the order of what is known, the cause and condition of the possibility of knowledge.

with it. Knowledge is reduced to its possibility to correspond with some object of the external world. In this direction, observation is reduced, then, to subjective experience and experiment, in other words, observation is determined as the subjective activity that seeks to perceive regularities in the properties and / or qualities of the objects of experience.

But the challenge of modern epistemology would be the establishment of the subject of knowledge as a fundamental condition of knowledge. In this sense, the Kantian transcendental philosophy accepts as an assumption that the object is constituted and conformed within the knowledge of the subject. This implies that the empirical object (as an object already determined by the senses as a phenomenon) must be governed by the nature of the faculties of the spirit and, consequently, that the material experience is determined by the *a priori* concepts of the subject. So, “since experience itself constitutes a type of knowledge that requires understanding and it has rules that I must suppose in me, already before the objects are given to me, those are, *a priori* rules. These rules are expressed in *a priori* concepts to which, therefore, necessarily all the objects of experience are conformed and with which they must agree” (Kant 2007, p. 21).

From this Kantian position, the observing subject acquires a central position in the knowledge of the object (observed). The knowledge of the object becomes an exercise of synthesis between representations, which are constituted as proper forms of subjectivity. Although the philosophical work of Kant was strongly influenced by the scientific revolutions, especially by the revolution of N. Copernicus in astronomy (XVI century) and by the scientific advances of I. Newton (XVII century), this Kantian position based on the “Copernican revolution” resulted in the philosophical affirmation that one can only have knowledge of the observed objects if the observer subject *a priori* constitutes them. Once is established this “Kantian transcendental ego” (Rorty 2010), epistemology reaches maturity, it would represent the discipline in charge of criticizing and justifying the validity of knowledge from its analysis of objective consciousness. It is for this reason that “Kant placed philosophy on the ‘safe path of science’ by placing the outer space within the inner space (the space of constituent activity of the transcendental ego) and then affirming the Cartesian certainty about the interior for the laws of what I had previously considered as external” (Rorty 2010, p. 132). As a consequence, epistemology would find its position as a tribunal of reason: a position from which all scientific explanation, in general, could be evaluated as true in order to meet the criterion of predictability: that is, if the subsequent observations of the phenomena explained correspond to the subjective principles and their *a priori* rules that constitute the knowledge of the observed object.

Faced with this epistemological position, cybernetic phenomenology starts from a different principle. For von Foerster (1991), the description of the universe implies, necessarily, the one that performs the description (observer). Hence, a cybernetic theory of observation considers two conditions in observation: “i) the observations are not absolute, but relative to the point of view of an observer (for example, Einstein’s coordinate system) and ii) the Observations affect what is observed in such a way that they impede all hope of the observer in terms of being able to

predict (for example, his uncertainty is absolute: Heisenberg)” (p. 64). A cybernetic theory of this kind would require, rather than a theorization of observation, a theory of the observer. Against modern epistemology, which seeks to establish the requirements of an objective-external world, independent of the observing subjects but invariant to the theoretical descriptions. The postulated cybernetic would not focus just on developing a subjective world, which is also invariant to theoretical descriptions, but in including the observer himself. From this perspective, a theory that starts from the observing subject and its function within the cognition process, is proposed but recognizing a fundamental principle: the real is a construction of the observer and, therefore, “the knowledge relationship is not a relationship between a preexisting subject and object: subject and object are products of the relationship” (Brunet and Morell 2001, p. 41).

Now, in the context of this discussion, the subsequent sections of this article aim to establish a discussion about the epistemological character of observation from cybersemiotics. To do this, the discussion will be divided into three parts with the intention to outline, in principle, a conceptual critique that later allows us to supplement the cybersemiotics requirements observation from a transcendental semiotics.

Thus, in principle, a characterization of the epistemological dispositions of the observation of the philosophy of science will be carried out from there, the theoretical progresses that the contemporary philosophy of science shows against the modern problem of the science: the split between subject-who-knows/object-known. Then, in a second stage, the observation will be reviewed from the cybersemiotic point of view. In this sense, the characteristics of the observation will be described from peircean semiosis. Hence, when considering observation within the sphere of meaning, the approaches that allow a characterization of knowledge from a non-modern phenomenology will be shown. The latter will allow us to circumscribe knowledge from a communicative, semiotic and autopoietic approach.

Finally, and as a contribution to the state of the discussion, this chapter will defend the cybersemiotic theory of observation, but considering the pragmatic circumstances of knowledge from a transcendental semiotic. In this sense, the transcendental concepts of “truth by consensus”, “regulative ideal” and “community of thought” will be used to develop a pertinent theoretical field allowing to consider the transcendental conditions of the intersubjective character of knowledge postulated by the cybersemiotic.

14.2 Observation Conditions: A Review from the Philosophy of Science

The philosophy of science has problematized from different perspectives the relationship between subject- who-knows and object -known. A sophisticated variant of this philosophical framework has been enunciated in this chapter as the relationship between subject-observer and object-observed. This epistemological link allows us to consider two problematic issues: Donald Davidson (1992), “The myth of the

subjective”, addresses the problem of the relationship between objective and subjective. He shows that the conception of the mind as an internal space that is gifted with its own internal representations, is wrong: therefore, exist a mind thus, their thoughts and feelings would be states internally, unable to constitute a reportable content for the other minds. The fact that minds can communicate with other minds through language and that, in addition, this same language determines in a specific context which can be thought, this shows that the concept of the mind as subjective internal space (in the manner of Descartes and Kant) rests on problematic assumptions.

Meanwhile, W. Sellars (1971), in what he calls “the myth of what is given” shows the contradictions of an empiricist stance that maintains the possibility to directly know the data of experience without any prior conceptual content. Such a contradiction is, then, to propose the idea of a knowledge founded on perception: where the experience, either shows us “unique entities” (immediate, non-inferential and therefore non-relational) which are the base of knowledge, are most non forms of knowledge; or, the experience is a form of knowledge, which shows “facts”, so it can be inferred from later knowledge relations. In a problematic manner, the classic empiricist assumes this dilemma as a valid reasoning. A relevant conclusion of both questions is, in any case, the recognition of language as a necessary condition for knowledge. Whereas for Davidson (1992), the meaning of the terms is acquired by the linguistic associations that are established in specific circumstances, for Sellars (1971) to determine a data of experience (as “this is colored X”) implies recognizing a relation of inferential, propositional and conceptual knowledge, prior to the very act of establishing the determination of experience itself. Although, these philosophical contributions problematize the position of a subject-that-knows as the foundation of knowledge and question the transcendental character of the mind – from which the idea of an objective observer is derived; they show not only language as an element of knowledge, but also recognize context, circumstance and intersubjectivity as necessary conditions for establishing the act of knowing.

However, the epistemological problem of observation is clear when we consider the cases shown by contemporary science, especially the occurrences of quantum physics. If we examine the case of “unobservable” entities (such as the atomic and subatomic elements), the discussion about the observation becomes metaphysical. When, through certain artifacts, instruments and technical procedures, scientific representations are constructed, which in turn configure the visual character of an entity⁶ -of which its existence is assumed-, then the question arises about the ontological status of theoretical entities. This approach, developed by Grover Maxwell (2010) demonstrates that there is no conclusive separation between theory and observation and, as a consequence, that there is certain continuity between observable and unobservable entities. The distinction between these two areas is arbitrary and only show the current state of scientific knowledge, but it does not says anything about the existence of the entities that are being studied. In this context, the

⁶A philosophical-semiotic version of this discussion is developed in Horta, J. (2013). *Scientific language: problems of iconicity and meaning in the representations of Biology*. Master’s Thesis. National Autonomous University of Mexico.

hypothesis is clear: eliminating the theoretical terms does not remove the existence of unobservable entities; therefore, if the theories have explanatory success, it is because, in the end, the entities to which they refer to really exist.

The question of the existence of theoretical and unobservable entities shows us a perspective about observation: namely, the demarcation of the observable as the basis of scientific knowledge and, also, the theoretical conditioning of observation. This last point has been widely developed by N. R. Hanson (2010), for whom observation necessarily involves an interpretive vision sustained by previous knowledge: that is, the vision involved in observation has as *a priori* transcendental condition prior conceptual content that Hanson called “perceptual theory loading”. In this sense, the theoretical load is the knowledge prior to the experience that conditions the apprehension of the observed object (see of perception: “see as”) and, likewise, determines the formal identification of the said object within a framework of prior knowledge (see of knowledge: “see what”). Therefore, the knowledge view constitutes the form of the object observed from a language, which allows the conceptualization of the object and, simultaneously, prevents its subsequent reidentification, building a range of expectations (learned knowledge) that will condition subsequent experiences. Therefore, “to see an X object, is to see that this object can behave as we know that the X objects behave. If the behavior of the object does not match what we expect from an X, we will be forced to not see it, from now on, as an X” (Hanson 2010, p. 242).

When Hanson (2010) admitted the transcendental Kantian postulate, he accepted that the interpretative vision is *a priori* to experience an experience of knowledge, but does not justify the position of a subject-observer transcendental. Instead, he recognizes that the observer faces what is observed through the mediation of a conceptual language that allows him to configure the observational experience. Consequently, observation is a process formed simultaneously by two operations (vision-interpretation), in which images and sentences are linked to determine the character of the observed object.⁷ The recognition of language and previous knowledge, as *a priori* conditions of observation, are not foreign topics in the epistemological discussion of cybersemiotic theory. Furthermore, this area of reflection has been revised from the semiotic realism of C. S. Peirce. So, based on this realistic position, cybernetics – and consequently cybersemiotics – would carry out a theoretical characterization of observation that would include an element that, within the philosophy of science, has been left outside the scope of speculation: this is the “reflexive” and “self-reflective” character of knowledge, where the observed object can only be defined from the observation of the observer itself, within a system that allows its coexistence. This last statement requires considering a perspective that is not based on the epistemological separation between subject/object, neither in the fundamental opposition between internal mental space/external world. The

⁷An epistemological critique of Hanson’s approach to observation is in the text: Magaña, M. and Horta, J. (2016). “Towards a notion of interpretation in science: critical annotations to the approach of NR Hanson”. *Interpretation: hermeneutical journal of the Institute of Philological Research*. 1 (2) 89–118.

philosophy of science, in this sense, has not been able to clarify this formula of modern thought and, in any case, it has made a problematic defense of this supposition. In the words of Brier (2016), “this means that the model of the world out there, produced by empirically grounded science, lacks of an integrated reflection precisely of that cognitive structure within our embodied mind that produces science” (p. 212).

14.3 Semiotics and Cybernetic Conditions of Observation

To justify the cybernetic position, peircean realism has provided different approaches that seek to answer the causal relationship involved in modern scientific knowledge. In this section I will explore some of these approaches, trying to define some of the foundations of cybersemiotic epistemology. Now, in a fragment entitled “Principles” (1861),⁸ Peirce outlines in a schematic way his concept of knowledge, in a brief exercise that tries to contrast his position against traditional epistemological notions. For Peirce, the primordial problem lies in the “nominalist” character of the previous definitions, since this position assumes the existence of unknowable things-in-itself and, therefore, determines knowledge itself as a “*medium quod*“, namely, as the means through which you can only know the effects of things on one’s conscience, and not the things themselves.⁹ From a pragmatic perspective, the process of knowledge is interpretively different (but not necessarily opposed) to modern epistemology. In this sense, Peirce affirms: “(1) There is the soul; (2) There is the field of consciousness in which we know the soul; (3) There is the thing in which one thinks (*thought of*); (4) There is the real power of the thing that is exerted on the soul; (5) There is the idea or impression that the thing leaves in the soul; (6) There is thought or idea as it appears in consciousness” (Apel 1997).

It is interesting at this point to make some brief considerations regarding this fragment (cited by Otto Apel, but referred to and recovered by Murphey 1961). Therefore, the following lines will outline some readings related to the theoretical foundations of cybersemiotics. In a more deterministic sense, it is pertinent to highlight Peirce’s distance from the modern epistemology suggested from the conceptual order that arises in his definition of the causal relation of knowledge. According to this, the idea of posing the notion of “soul” as part of the first affirmation of existence leads us to consider, from the beginning, a different theoretical position,

⁸Text cited by Otto Apel (1997) as a footnote (67), on page 118.

⁹For the North American philosopher, the nominalist theory of knowledge, in general terms, establishes the relation between subject-cognizer and object-known from the position of the Subject. The causal relationship is established as follows: (1) There is the Subject, the Ego, where the thing is known by virtue of an affection of the conscience and only through its effect; (2) the “noumeno” (“thing in itself) exists, and is unknowable; (3) the object or thing as intended; (4) There is the phenomenon, as an affection of the conscience; and (5) There is a causal relationship between object and phenomenon. Cfr. Text cited by Otto Apel (1997) as a footnote (67), on page 118.

for the author (1997, p. 112 and ss) “soul” is a notion that implies will, desire and possibility of choice in relation to ends. Thus, for the anglo-saxon philosopher, unlike the epistemological tradition, the process of knowledge begins with a first state, comprehended by desires and choices, which condition the original perception of experience.

In this peircean position, an important distance is highlighted: the step (1) of knowledge does not affirm a “*tabula rasa*” (Hume) or a “subjective *a priori* structure” (Kant), or a “mind” (Locke, Descartes); that is, it does not affirm the position of a meta-theoretical subject whose initial function is to conform as a “receptacle” (Rorty 2010) of sensory stimuli. On the other hand, the pre-pragmatic definition¹⁰ of knowledge affirms the existence of a soul that chooses and desires, and that at the same time behaves with respect to specific ends. In another sense, the existential affirmation (2) raises the possibility of a space of knowledge that, following Kant (2007), has to do with the sensory perception of the known object. But, for Peirce, this space is not internal-subjective, it is literally a “field”, as an internal and external sphere of consciousness, where the perception of the object of knowledge is shared (as external). This leads us to the Peircean idea of “alterity”, as a relation of representation of the object in which experience alters the state of knowledge. This alteration occurs within the intersubjective sphere, that is, the common space of knowledge that constitutes the total of the collectivity.

The existential affirmations (3) tend to (6) recover an aspect of transcendental philosophy, namely, the position of thought as a *priori* condition in the constitution of the object of knowledge. But, Peirce approaches it from a realistic position, where what is coherent and consistent with opinions, habits of thought (interpretative) and beliefs is true¹¹ of a community; in this sense, what is true is, for this philosopher, what constitutes reality. Therefore, he argues that “this great law is embodied in the conception of truth and reality. The opinion intended to be the one with which all those who investigate will finally agree is what we understand by truth, and the object represented in this opinion is the real thing, that’s how I would explain reality” (Peirce 2012, p. 186). Now, the existential affirmation (4) and (5) reiterate the communion between Peirce and the epistemological tradition, since both recovers the cognitive function of experience and perception. However, this function is not primordial, but in any case it is a consequence of the thought that a priori determines the existence of what can be thought. But, these statements propose a problematic field tied to a long philosophical discussion within the philosophy of science: the existence of a reality independent of the cognition of the subject. Precisely, statements (4) and (5) allow you to sustain the existence of some

¹⁰ It is said “pre-pragmatic” because Peirce’s philosophical questions about modernity were made before the consolidation of his pragmatic stance; but these same questions were the foundation to justify that philosophical position.

¹¹ In Peirce (2012), a belief is an interpretative habit elevated to the law of thought: that is, a habit that has been confirmed by a community and that conditions the ways of understanding and interpreting the world for the members of that community.

independent to the subject (external to their thoughts and will), but bound by continuity with their desires, choices and modes of knowledge.

To sum up, this characterization of knowledge – which is necessarily dynamic in Peirce, contains two fundamental realistic conceptions. On one hand, accepting Cartesian reasoning, recognizes the existence of the soul (mind) and its field of consciousness (thought); but in addition, it recognizes the existence of an independent reality of the soul, the thing in which one thinks (*thought of*) but that is linked by continuity to thought. This notion allows establishing the bases of a semiotic realism, within which, the existence of the thought is accepted from its manifestations concretized in signs. Signs constitute evidence of the existence of other minds and, hence, true and real knowledge are determined by the link between thoughts through signs. On the other hand, the possibility of a semiotic realism makes it possible to understand the scholastic realism of Peirce. Rather, says the American philosopher, we must recognize that the real: “An external reality is one whose characters are independent of how you or I think. However, there are phenomena within our own minds, dependent on our thinking (...) But although their characters depend on how we think, they do not depend on what we think those characters are.” (Peirce 2012, p. 184). But, if the real thing is other thoughts (different from the self), and at the same time independent of a particular thought, then the real is a thought of generality. In other words, the peircean scholastic realism recognizes the reality of universal abstract concepts. Thus, from this approach, the real does not necessarily imply empirical existence, for which the American philosopher accepts the reality of the “general types” (*types*) and their “particular instances” (*tokens*) as concrete manifestations of thoughts.

This is precisely the foundation of the dynamic and progressive conception of knowledge in Peirce’s realistic epistemology. Within this position, there are three instances of knowledge: “*Tychism*” main attitude of speculative thought, which involved recognizing the indetermination of existence, accepting the probability and absolute chance as a constituent part of knowledge; “*Synechism*“, the acceptance of the continuity between ideas-thoughts, which led to recognize in continuity a greater degree of understanding of the universe, and finally, “*Agapism*”, which is the tendency towards *filia*, understood as the tendency towards fraternity and community. This characterization of knowledge would have relevant consequences in the determination of observation from a cybernetic point of view - perhaps one of the most relevant epistemological links is in the relationship between peircean synechism and the second order cybernetics.

Rather, it is important to point out that observation, a the cybernetic point of view, is based on the concept of “reflexivity”, that is, in the relation of mutual involvement between the observer and the observed, within which a process of mutual coexistence arises. For Pablo Navarro (1989), this does not imply leaving aside the objectivity of knowledge, but, rather, considering a reflective objectivity where “the object overflows and includes in its radius of action the subject, who must thus give an account of himself in the terms of what is a product: the objectivity built by it” (p. 93). From the cybernetic and semiotic point of view, the observer is not a subject, it is a system; a semiotic system that is determined by sign conventions and, in turn, determines its environment from conventionalized signs. These

conventionalized signs condition habits of interpretation and beliefs, which in turn determine the way in which the observer positions himself and builds his environment. Therefore, “an observer is a semiotic system capable of producing habits or rules of action where it produces itself and its environment through the production and understanding of signs for which it has been programmed biologically, cognitively or artificially” (Vidales 2013, p. 123). Within this perspective, the observer, as a system, is himself the limit of his own knowledge of reality, which he has constructed for himself phenomenologically.

Hence, in second-order cybernetics, the reflective nature of observation implies a recursive process where observation and observer presuppose and mutually determine each other. The construction of meaning by an observer (as an observer system/semiotic system), involves the establishment of a set of signs, through which the observer constructs the surrounding reality (environment), as well as his own reality (thought). Therefore, cybernetics “turned on itself and used its concepts to see the users of these concepts and the relationship that through these concepts established with their environment” (Pakman 1994, p. 26). But the observer not only determines the environment from his own observation, but also observes another observer (which is also an observing system/semiotic system). This implies a relationship of knowledge where observers know the way in which other observers know, within a certain “domain of coexistence” (Maturana 1996, p. 76). Therefore, observation is not only reflective, but self-reflective: it is the condition of possibility of a recursive observation where observers observe themselves and others, within a community of observers, in a process of mutual recognition.

This relationship of coexistence occurs through the effect of language: where human beings, as observers, are constituted in living systems through language. In this process of language, the observer constitutes itself as a part of a domain of experiences and explanations, where it configures itself as an observer belonging to a community. Therefore, “human beings exist in language, and our experience as human beings is carried out in language in a flow of consensual coordination of actions that we manifest in language” (Maturana 1996, p. 96). Although the cybernetic presupposition of the coexistence between observer-observation-environment seems to dialogue with the positions of the philosophical hermeneutics, and suggests an extensive application of the hermeneutical concepts of “being-in-the-world” (Heidegger 2009) and “fusion of horizons” (Gadamer 2012); as well as the character of “linguisticity” of language in its ontological evolution to understand the being-other; I consider that a relevant reading of the conditions of possibility of cybernetics is in the peircean synequism and semiotic realism. Following this last suggestion, the condition of an observer to observe another (observer) from his own observations is the possibility of accepting the continuity of ideas-thoughts among members of a community.

This supposes accepting the synequistic quality of knowledge, where the thought-ideas of observers tends to affect other thought-ideas, producing generality in the understanding of the universe, allowing the generation of a non-particular consciousness. The latter makes sense if one accepts, in addition, that thought-minds exist from signs, which they share as evidence of their own existences. For that reality, the reality of an objective world (the observed) is determined by the

continuous quality among the general ideas (whose reality is defined by the principles of scholastic realism), which are continued and shared through signs among the thoughts of observers who are members of a community. Finally, this allows us to affirm that the reflexivity and self – reflexivity of observation, based on semiotic realism and peircean synequism, guarantees a field of constructivist speculation within which, the real is a construction of the community of observers who share ideas and languages, through which they determine their environment and, likewise, determine their own reality as observers. According to this last affirmation, human beings construct an objective world in a rational way, but, recognizing that “rationality is not a property of the observer that allows him or her to know something independently of what he or she does, but rather it is the operation of the observer according to the operational coherences of *linguaging* in a given domain of reality. And consequently, there are as many domains of rationality as domains of reality produced by the observer” (Maturana 1996, p. 35).

This cybersemiotic position (made from the bases of the semiotic phenomenology, hermeneutics synthesis and systemic perspective) allows us to understand the phenomenon of observation, beyond the epistemological problem of the base as the foundation of knowledge. In synthesis, this leads us to consider knowledge as a result of the relationship of continuity of an empirical existence that underlies the postulated reality by the theory. This existence (as independent human agency order) is accessible to knowledge through “judgments of perception” that constitute the epistemic states on which subsequent guesses of knowledge (hypothesis) will be made. The cybernetic continuity between observation-thought-existence is a necessary condition for the contemporary definition of knowledge, and allows us to question the subjective nature of science postulated by idealistic, empiricists and nominalist philosophies.

14.4 Cybersemiotics and Phenomenology from Transcendental Semiotics

This last section seeks to close this review by suggesting some epistemological questions involved in the cybersemiotic theory. Of course, this exercise is not exhaustive, since it does not intend to revile the epistemological contributions of the theory; rather, it seeks to construct a space for philosophical exchange with respect to some relevant topics within that theory. On the other hand, it seeks to contribute to the discussion from the point of view of transcendental semiotics, recognizing some interesting contributions from a different reading of Peirce. Now, within the emergent hierarchical levels of semiosis, described in S. Brier’s (2008) cybersemiotic proposal, the fifth level corresponds to the emergence of self-consciousness: namely, where human consciousness is constituted as self-consciousness, through language and logical-rational thinking. At this level of semiosis, human consciousness is determined as a consciousness of signs, which allows us to observe and infer

the regularity of nature through language, with which the human mind can recognize this regularity.¹²

At the center of the “cybersemiotic star” model (Brier 2016), there are autopoietic social semiotic practices, determined by the relationship between language and consciousness. This relationship is not reduced to the internal consciousness of an “I”, within a relationship of scientific knowledge pre-established by the conditions of language. If not, rather, it postulates a process that implies the affirmation of an earlier consciousness: that is, shared experiential consciousness as I experience (temporal and perceptual) prior to language and science. However, despite the intuitive metaphysical nature of this approach, a phenomenology of this nature can only be sustained on the postulate of an objective reality, independent of the human mind and closely linked to the field of experience.

From the start, the cybersemiotic phenomenology is based on the distinction between *Umwelt* and *Lebenswelt*. According to Deely (1996), *Umwelt* is “the phenomenal universe, the part of the environment that an organism selects through the specific senses it possesses and that constitutes its private world” (p. 63). The term encompasses the notion of species, not individuals, in such a way that this private world does not imply the concept of subjective internal structure proposed by Kant, but rather the set of relationships that are on the one hand dependent on one mind and, on the other, independent of the entities. This private world is also an objective world, since it includes “everything that exists in some way as known” (Deely 1996, p. 177). Hence, the *Umwelt* as objective world is a “semiotic plot” (in terms of J. Deely) that not only implies the living world, but also the physical world existing within the scope of experience. Each semiotic plot assumes a center, closely linked to other centers, articulating a network of shared knowledge that goes beyond the embodied subjective experiences, and that as a warp of symbolic relations (that is, of meaning) constitute the criterion of objectivity of the known. Faced with this definition of *Umwelt* as a phenomenal universe, the *Lebenswelt* constitutes the social world, determined by cultural and social acts. Following Deely’s nomenclature, it is a specific variation (typical of the human species) of the *Umwelt*, common to anthropoid beings. This last phenomenological scope corresponds to what Deely calls “anthroposemiosis”, that is, the scope that circumscribes the sign processes of the human species, as well as the sign systems that structure human perception and modify its environment. Therefore, the *Lebenswelt* is a microcosm that is part of a more complex macrocosm (*Umwelt*).¹³

¹² Brier describes four other levels of semiosis that precede the level of self-consciousness: (1) the level of causality constituted by quantum fields; (2) the physical level of kinematics and thermodynamics; (3) the proto-semiotic level of objective information determined by empirical patterns; and (4) the level of self-organized life that corresponds to living systems (Brier 2008).

¹³ It should be noted that this approach is relevant in the field of traditional semiotic studies, which assume that verbal language is the primary modalizing system. However, from the perspective of Deely, verbal language is just another of the systems of modalization of the world, and for that reason it is a rather secondary system: the author considers the existence of processes and systems prior to the linguistic description of the world (Cf. Deely 1996, p. 90 and ss)

Within this idea of independent objective reality, the established experience of anthroposemiosis is a plot that links linguistic semiosis with shared semiosis of other species: that is, it constitutes an “endosemiotic” network embodied in the different levels of consciousness. In broader terms, the anthroposemotic experience establishes the interaction of human beings with the physical environment on three levels: namely, linking them with their co-specific (other human beings), with other animals and, finally, with different physical environments. This allows us to justify an interesting phenomenological approach: anthroposemiosis is a set of relationships that constitute a totality-unity between the natural physical environment and the human.

Following the path proposed by Deely (1996), observation in experience involves looking at the complexity of the objective world from the particularity of anthroposemiosis: in other words, this observation involves looking at the macrocosm from the *Lebenswelt*, which, in principle, looks himself as a microcosm, while observing the complexity of the semiosis of the *Umwelt*. Therefore, “anthroposemiosis is the most complex form of semiosis (...) because it houses all the other semiósic developments at the same time and depends on them to achieve what is unique and specific to itself, starting with language” (p. 92). In this theoretical framework, the observation of the objective world implies, primarily, assuming the reality and existence of that world in order to subsequently make this observation from the specificity of the human species. This observer-observed relationship, the observer must necessarily observe that observe his own objective-private world (his own *Umwelt*) so that, from there, he can observe the other objective world. The latter assumes two conditions in observation from semiotic and cybersemiotic phenomenology: a) the observer is a species, not a particular entity or individual; and b) what is observed is a life grouping different from the co-specific group of the observer.

In methodological terms, the human species deals with the observation of the semiotic levels of the *Umwelt* from the limits of its own *Lebenswelt*. In this sense, the possibility of approaching knowledge of the observable objective world is realized from human experience: where the basic notions of *Umwelt* can only be derived from human experience, that is, only from what can be stipulated from the human, where the objectivity of this experience is the foundation of the common structure of the whole field of unknown empirical knowledge, unobservable and that is determined as “specifiable” *a posteriori*. Now, following a different reading of Peirce, Deely (1996) proposes that every method presupposes a degree of semiosis, since semiosis implies emergence of meaning and, also, a process of revelation where each method shows something of the world. Particularly, it seems a plausible risk to consider that cybersemiotics, in its different characterizations of peircean semiosis, may not recognize in his method that it is only a point of view, whose nature is semiotic. In this regard, Brier (2016) advances a justification,

This transdisciplinary framework posits, first, that in order to produce intersubjective knowledge like *Wissenschaft*¹⁴ it is necessary to accept the reality of language, embodied autopoietic minds, the culture and the non-cultural environment; and second, that the discussion on transdisciplinary knowledge takes place in a semiotic-linguistic discourse with other embodied and linguistically informed sentient beings in a common praxis that combines non-culture with the cultural spheres of meaning (p. 184).

This statement leads us to identify two relevant problems within the cybersemiotic theory. On the one hand, the formal circularity of the argument allows us to infer the ontological objectification of theoretical concepts. Among other implications, suggests problematically that for the effective realization of a transdisciplinary knowledge, the conditions and elements that make up the transdisciplinarity must be accepted. With this, it seems to assume the objective existence of such elements and conditions, accepting that they are existing entities and not concepts that come from a specific form of the theoretical language. In other words, cybernetics falls on the problem of the ontological objectification of their concepts, which means that to recognize the reality that suggests the theory is a necessary condition to accept the existence of the theoretical entities posited. Existence for which is not required any empirical demonstration. In the argumentative logic of this passage, the ontological objectivity is an inevitable consequence: it is a necessary resource to escape the circularity of the argument, which sets out to accept an intersubjective knowledge (defined by the same theory), before we must accept the conditions (nominated by the same theory) which determine such knowledge. Thus, the ontologizing of theory takes back us to the problem of the foundations of knowledge; this question constitutes a perspective inherent in postures idealists and empiricists.

It is not idle to try to answer the questions that the philosophers of science have peered into the different epistemologies that tend to be constituted as phenomenologies or ontologies. For example, for Rorty (2010), the problem of a phenomenological approach is a confusion between metaphysically determine which components or units are knowledge and, on the other hand, what are the organic conditions necessary for construction of knowledge. Following the pragmatic dissertations of Rorty (2010), the idea of an observation that presupposes an objective-shared world constituted by sign networks, although it allows to overcome some of the contradictions of Kantian idealism and modern epistemology (such as the idea of a space subjective internal as a necessary condition of knowledge), however fails to avoid some of the common places in which the critique of a phenomenology has stalled. In the following lines I will outline some philosophical discussions involved in the cybersemiotic position as phenomenology. But, it must be limited, it is a philosophical reflection derived from the very concepts with which the cybersemiotic theory is based and described, this means that the reflections made here constitute a level of metatheoretical research, which seek to gain explanatory capacity about the conditions and foundations of cybersemiotics.

¹⁴ *Wissenschaft*, is a German term that refers to a systemic scientific study. The dimension that Brier (2016) makes continues in this direction: a term of science that covers the field of exact sciences, social sciences, humanities in the same world. Cf. Note 5 of the cited article.

In principle, presupposing an objective world leads us to consider the epistemological problem of “privileged access” (Rorty 2010, p. 104 and ss): where the researcher seems to have immediate access to the order of the objective world that results in counterintuitive arguments in relation to the common sense and the beliefs of a certain community. This privileged access implies that there is a necessary logical connection between the internal states of the mind (or the minds-community), the behaviors of the subjects of existence, and the primary sensations that come from the perceptual relation with the objective world. Although the notion of semiosis allows to think a different definition of knowledge determined as a network that constitutes the sign space of shared information and, therefore, objective; in any case, this position does not solve the problem of the connection between an internal state as mind or thought and an external state as a set of sensations (although objective for the reasons explained).

Moreover, the cybersemiotic concept “perception as a first in pure state” (Brier 2016, p. 188), is a sophisticated version of the philosophical idea of “primary sensations”, and consequently seems to refer us to the phenomenological problems involved in the latter concept. For Rorty (2016, p. 30 and 90), the problem lies in establishing a report about the phenomenal properties of these primary sensations, as this leads us to consider the representational content of a sensation already signified; content that can be contradictory: well, certainly, the content derived from a primary sensation can be representational-intentional, with phenomenal properties (at the level of thoughts or mental images), or representational-intentional without phenomenal properties (when we talk about beliefs). From another position, but in a contradictory way, the same primary sensation can derive an unintentional and simultaneously non-representational content, constituted by phenomenal properties (like other sensations and perceptions), or without phenomenal properties (the purely physical). The relevant question is that, from *Lebenswelt* itself, we do not have any observational resource that allows us to determine and justify the process of occurrence of the different internal states derived from a primary sensation.

From a semiotic point of view, semiosis as the action of signs can be a theoretical foundation that allows us to overcome the previous epistemological problem. However, considering a community of interpreters linked in a semiotic network, the knowledge of the world as objective-shared leaves aside a problem about the phenomenal properties that constitute such knowledge: namely, one of the problems pointed out by S. Kripke (1972, p. 339 and ss) with respect to the “epistemic situation”. To consider the dilemma of the evidence of a primary sensation within the process of knowledge implies that, in any case, for an observer (X) to have the same primary sensation as another observer (Y), he must have been in the same epistemic situation of perception (that is, being in the same time / space), which is ontologically problematic. If this were not the case, then either you do not have the same feeling (and each one refers different things), or you are generically designated (through a “rigid designator”) the same object-experience in every possible world.

The latter leads us to affirm, together with Kripke (1972), that a physical state does not necessarily identify with a designation and, therefore, one can speak of the designation and the designation without correlating it with a specific physical state.

Hence, to speak of a primary or primary sensation implies falling into an ontological and epistemological relativism: where a community of knowledge, as a community of interpreters, does not share objective physical states, but only specific ways of designating them from of shared expressions. In this relativism, Kripke's sentence is interesting to evaluate the cybersemiotic theoretical concepts: phenomena can not be discovered in the same way and all are relative to the epistemic situation of the observing subject.

A phenomenological position could imply the problem implicit in the ontological character of a theory, namely, that a theory conditions a type of observation. In this sense, observing the semiosis or autopoiesis as terms that describe and condition the observation of a certain reality could return us to the problem of the circularity of knowledge. Together with Feyerabend (2010), is possible to agree on a pragmatic theory of observation, which makes it possible to accept that the inspection of phenomena is necessarily conventional, and therefore, knowledge is constructed in the confrontation between theories and in the interpretation of properties observable from the set of knowledge accepted by a community. In this order of ideas, cybersemiotics is an interesting set of alternative theories that build the base of a theoretical pluralism focused on constructing a theoretical reality susceptible of being interpreted.

Thus, it is important to make a first warning: together with Deely (1996), we accept that semiotics, and in fact any method or theory, necessarily constitute a "point of view". This means that there is a problem of objectifying the method or theory used to describe reality. This objectification of the method or theory implies ontologizing the sign process that bases them. Understanding, the question for Deely consists in considering the method or theory as an "ideology", in which theoretical "ideas" are considered to be "self-representations" that show themselves, that have existence in themselves and that, therefore, are objects that must correspond to some kind of reality. However, the semiotic realism of Peirce had already suggested to us that some general concepts have reality, independent of particular private ideas (of individuals, for example). But, accepting this scholastic consideration would return us to the modern problem of the correspondence between ideas-concepts and reality. A solution, in the first instance, is suggested in the neoplatonic character of Peircean realism, and in the assumption of the existence and reality of thoughts. But, in any case, this supposes that reality must be the end of the philosophical investigation, not the foundation. In other words, demonstrating the universality of a concept is the end of inquiry because in principle we can only assume that both ideas and concepts are artifices of a language, in which, signs are part of a specific code and, for that reason, are objectively different from ideas and concepts as representations.

In another order of ideas, Brier (2016) states that "cybersemiotics constitutes a realistic foundation for the comprehensive understanding of the natural, life and social sciences as well as the humanities and that can provide a deeper understanding of the differences in the type of knowledge they produce, to show why each of them is necessary" (p.183). Indeed, this fragment invites us to consider the epistemological nature of cybersemiotics, which is limited to the problem of modern

epistemology: that is, the arbitrary character of a field of thought that is positioned as “First philosophy”. This is the reason of why it is assumed as responsible for explaining how knowledge arises and what elements comprise; as well as what are the necessary and sufficient conditions that determine knowledge as valid. The epistemological problem involved is to impose a philosophical language on the task of science, where it *regulae philosophandi* is a necessary condition for scientific knowledge.

Moreover, the problem is exposed if one considers the pretention to constitute cybersemiotics as a “realistic foundation for understanding” (Brier 2016). However, the terminology does not dispel the foundational character of the cybersemiotic perspective. If we accept a foundationalist position implicit in cybernetic and cybersemiotic epistemology, we should recognize two derived problems: on the one hand, that systemic, cybernetic and cybersemiotics concepts rest on the basis of beliefs that are not evident (for example, assuming reality of semiosis) and, therefore, its epistemic validity must be demonstrated before; and on the other hand, it is not clear what knowledge is derived from basic beliefs and therefore they are just justifiable within a knowledge framework. To conclude this series of questions, it would only be left to say that while cybersemiotics postulates perception, and the first involved in it, as parts of the knowledge process, this same thing take us back to the epistemological problem of foundation. It is not trivial that Brier himself seeks to propose his cybersemiotic theory considering the possibility (plausible, of course) of establishing the foundations of knowledge. Therefore, the underlying issue in this is to sustain the confusion between perceiving-knowing.

Knowledge that pretends to be or have foundations is based on maintaining that there is an empirical element that determines knowledge, and this has the consequence of considering objects as necessary entities that are imposed on thought. Hence, thinking about the foundations of knowledge is a natural reasoning if knowledge is defined as the relationship between mental entities and entities of a different character (for example, empirical); and from here, having a foundation of knowledge implies being able to discern the necessary from the contingent. I think that semiotics itself is a response to this approach. The possibility of the signs to represent unimaginable objects (such as ideas or numbers), in the sense of not having a correct observation-image of the object, represents a challenge to modern epistemology: because this reasoning derived from Peirce allows us to define a broader and more complex concept of “knowledge”, where thought is not necessarily related to the entities that result from observation. Thereby, we can think of theoretical or metaphysical entities, which are objective as knowledge shared by a community, but do not correspond to observable facts.

Finally, one important point to review is the ontological bases of cybersemiotics. I agree with Brier (2008), on the fifth ontological level, because it allow us to understand why the new foundation of knowledge is in intersubjective communication and organized cognition autopoietic and semiotically. But it is at this point that I want to sustain the need to raise cybersemiotics on the basis of transcendental conditions. The belief of truth, from the point of view of the *Wissenschaft*, not only maintains an ethical commitment, but also an epistemological one, that is, a

commitment to the truth of our knowledge. This belief in truth is maintained on the basis of the Kantian “regulative ideal”, that is, as a purpose that determines actions and guides practical objectives. But, from a transcendental semiotics, a definition of truth can be established that, as an ideal regulative, is constituted as a transcendental condition of knowledge within the scientific conception of the *Wissenschaft*.

In other words, cybersemiotics would have a strong argument if it postulated the distinction between *Umwelt* and *Lebenswelt*, not as a theoretical foundation (which would imply returning to the philosophical discussions described above), but as a hypothesis to be proved *a posteriori*: namely, as a metaphysical affirmation not verifiable, but that would work as a regulative ideal that determines the end of scientific research. This forces us to describe the transcendental nature of this statement and explain how it could work at the level of a cybersemiotic phenomenology, but without returning, once again, to the epistemological problems derived from Kantian idealism. But if we accept the nature of transcendental conditions as conditions of possibility of knowledge (according to Kantian philosophy), we could think from this point forward of some transcendental conditions as necessary for the constitution of knowledge from the cybersemiotic theory. In the first instance, one condition is to recognize the metaphysical nature of cybersemiotic theory, but in the sense of “metaphysics” from the perspective of P. Feyerabend (2007), in which metaphysics correspond to the knowledge that is not validated by the empirical basis of verification or observation. Both the distinction between *Umwelt/Lebenswelt*, as well as the levels of the cybersemiotic star, can be held as non-observational entities, nor committed to empirical verification, but which, as epistemological purposes, are ideal that science seeks at some point to be able to show. Hence, its explanatory power is not to describe an empirical world, but the opposite, it aims to describe a possible world that tends to trace a probable path of investigation.

This metaphysical position makes sense within the framework of a transcendental semiotics, since the metaphysical terms and concepts are not in correspondence with their empirical verification; in any case they function as symbols that make sense within a community of researchers-interpreters. The reality of this metaphysics lies in its character as a regulative ideal: it allows us to think about the world in a different way as the world presents itself to observation. This leads us to conclude that, in any case, it is thought that determines knowledge, not observation or its epistemological derivatives. Thus, a condition of metaphysical terms, seen as symbols within the discursive apparatus of cybersemiotics, is to determine its phenomenological functioning as non-verifiable regulative ideals, but which determine a set of actions within a community of researchers. Now, the criterion of validity of these metaphysical approaches involves proposing a notion of truth derived from a transcendental semiotics. This concept of truth involves the challenge of overcoming the ambiguities of the scientific truth postulated in modern epistemology, which is based on the correspondence relationship between scientific theories and the empirical basis of experimentation.

This theory of truth must take into account two levels of knowledge. In principle, you should be able to establish a “harmony” relationship with the evidence to determine a correspondence relationship (be able to establish relations of semantics of

correspondence between sign and object); but, in a second term, you must be able to constitute a pragmatic function that includes the linguistic interpretation that makes possible the intersubjective link in the context of reasoning. According to that, a theory of truth with a semiotic foundation has, consequently, to contemplate three sign functions: an indexical function that directs the attention of the subject in a linguistic way in the given phenomena; an iconic function that establishes the being-so of phenomena by means of the introduction of predicates; and a symbolic function, which enables the adequate use of conceptual signs that enable the intersubjective validity of knowledge.

As a consequence, a semiotic theory of truth must combine the semantic correspondence of the phenomenal evidence (object-sign) with the subjective interpretation that makes intersubjectivity possible. This suggests that, in the end, knowledge is consolidated from linguistic interpretation. For Apel (1991), and following his reading about Peirce, the phenomenal evidence of the object does not guarantee the intersubjective validity or the certainty of knowledge of something. For, in any case, “without the linguistic interpretation adequate to the phenomenon in relation to abductive reasoning, the pure phenomenal evidence for the correspondence of intentional compliance is not yet, at all, an evidence of knowledge” (p. 51). Hence, for this truth to make sense, intersubjectivity could not be determined as an a priori condition of knowledge; rather, it must also be considered as a regulative ideal based on Peircean *agapism*, that is, in evolutionary love through a final cause of the harmonic order that allows to establish unity between Individual-Community and consequently the unity between Community-Nature. So, if we accept this semiotic description, it is necessary to recognize that both thought and knowledge are activities that are conditioned, carried out and happen to occur in the community: because semiosis, like the sense of the signs, does not configure an individual thought, but a thought that is significant in the community.

This would allow us to postulate a notion of truth relevant to a cybersemiotic position of knowledge: i. e. a notion of truth in which cybersemiotics do not rest in a foundationalist and metaphysical position; but to recognize the nominalist and semantic character of its theoretical postulates. Now, and to develop this question from a transcendental point of view, Apel (1991) considers that a pragmatic truth necessarily implies the existence of a context of practical verification to determine the truth of sentences or statements. In Peirce, this context of verification occurs within the framework of an unlimited community of interpreters. This criterion proposes different characteristics that define the functioning of a community of interpreters. In the first place, it is assumed that within the community a moral “self-surrender” occurs (Apel 1991, p. 68 *et seq*), where the interpreting members of that community have subordinated all their interests (social and individual) to the interest of seeking the truth. In this sense, the verification of hypotheses and beliefs, within this context, can be established as a proof of the capacity to constitute a consensus through arguments.

From this perspective, Apel (1991) proposes a pragmatic-transcendental theory of truth as consensus, based on the limits of a community of interpreters. But, as a condition of demarcation, it should be noted that this consensus is made on the

criteria of truth available by the community itself. This leads us to infer that, from Peirce, the current state of knowledge is proposed as a criterion that regulates the determination of truth and the validation of sentences that retain the quality of truth. Thus, as a third condition to regulate the practical verification of the notion of pragmatic truth as consensus, Kant proposes the relevance of a “regulative ideal” that delimits the practical scope of the concept of truth. This regulative ideal is proposed in two ways. On the one hand, in the idea of a “quasi-institution” that shapes the community of interpreters as an unlimited intersubjectivity destined to propitiate the non-forced rational consensus; and on the other, the very idea of rational consensus as a conviction, which is proposed as the end that regulates and disposes the actions of the subjects of the community, but in fact, as an ideal regulative, it may be the case that this conviction is not perform de facto.

According to this, the idea of a truth as consensus leads one to consider (together with Otto Apel) the meaning of scientific research from an ideal regulator, in which a community of interpreters (researchers, scientists), community unlimited and in ideal conditions, could reach “in the long run” an intersubjective opinion that is valid for all members of the community; and that it is not debatable based on the truth criteria available within the same community. This hypothetical possibility allows us to infer, but now together with Peirce, that the intersubjectively valid opinion must be (for the members of the community in question) identical to the truth, as intersubjectively valid opinion; and for that very reason, on the ontological level, this truth has to be the adequate representation of the real. Finally, these transcendental conditions differ from the cybernetic conditions in which observation and knowledge are postulated; namely, inasmuch as for a transcendental semiotic stance they are conditions that do not imply a necessary reality or a concrete realization. Hence, the idea of a truth by consensus and a community of interpreters, such as transcendental semiotic conditions of knowledge, would allow positioning the approaches of cybersemiotics from a non-realistic setting that implies some of the epistemological problems reviewed in the previous lines.

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