Consistency, Completeness and the Meaning of Sign Theories The Semiotic Field

The final sentence of Stephan F. Barker's *Philosophy* of *Mathematics* (1964) can be paraphrased as follows: The house of semiotics has many mansions, and in it many games are played. But we can ask ourselves whether consistency and completeness-logical concepts in the first place are effective in approaching the legitimacy of semiotics, not to mention that after Gödel's (1931) research on the relation between consistency and completeness, one would be playing the *game* of ignorance trying to answer whether sign theories should be both consistent and complete.

This makes a first clarification necessary: Consistency and completeness are understood here at the pragmatic level and not, as in logic or mathematics, at the semantic level (or as related to truth). Although further explanation will be provided in the arguments to follow, it seems necessary to supply methodological elements with respect to what is meant by the pragmatic level (since *pragmatic* has so many connotations) at which consistency or completeness will be examined. The intention is to consider the semiotic system in its context—in other words, to clarify the interrelation between what is stated and the object of the statement—in the knowledge that each time a sign sequence is produced (at the most elementary level of semiotic activity or at the level of theoretical activity manifested through hypotheses, theories, or systems), it changes the context; and the changed context affects the configuration (immediate and future) in which new semiotic activity will take place. Enough reasons can be given for the assumption that if we can describe the relations between signs and contexts, then we can use these relations as an explanatory device for sign processes in general. The same holds for the assertion that this device-is more direct (even if not always more simple) and more encompassing than all those provided (or to be provided) by the syntactically or semantically related explanatory models.

The relation, if any, between the legitimacy of a system and its consistency or completeness is not univocal. One can prove-without entering into details-that some classical consistent systems (Euclid's geometry, Peano's number theory, Newton's mechanics, Bacon's gnoseology, etc.) are not legitimate under conditions in which a different pragmatics is involved (for example, the action of gravity on light, the pragmatics of addition and multiplication, the limitation to small masses and low velocity, or the reciprocal influence between induction and deduction). The same holds for so-called complete systems (physical, philosophical, utopic, etc.). The extension of the consistency and completeness of semiotic systems to the level of pragmatics cannot take place without considering the epistemological condition of semiotics, especially since knowledge in general is what we call context-sensitive. In this respect, a parallel to the epistemology of mathematics might be highly relevant, for reasons that will become progressively clearer.

At a first glance, we can notice that the main semiotic theories are either *mentalistic*—locating semiotic concepts or processes in our minds, referring to mental images—or *behavioristic*, reducing signs to stimuli. In reality, the distinction between these two lines of thought is less clear-cut; a kind of theoretical *mixtum compositum* is always identifiable. But consistency, at least, is either neglected or abandoned. Although the problematics of semiotics (sign, meaning, sign processes, etc.) represents the object of various scientific or humanistic disciplines—

whether they are aware of this fact or not—it would be exaggerated to ascertain that these disciplines dispose of general and applicable concepts of sign, meaning, sign processes, etc. Contemporary historical and methodological research has provided an impressive amount of hypotheses; and I am sure that after this moment of accumulation, critical clarification will help in elucidating fundamental questions. It sounds strange, but we have real difficulty in defining the subject matter of semiotics, and this is not only the result of the pressure exercised by, let us say, logicians and psychologists. The question is not whether semiotics is a part of logic or vice versa, or even independent of it. The question goes back to Kant's concepts of analyticity. to the not at all irrelevant problems of whether semiotics constitutes a deductive or inductive system, and to the relation between semiotic theories and reality. As far as the relation between semiotics and psychology is concerned, similar questions arise.

It is known (even by those refusing to accept the sign as the object of semiotics) that our semiotic theories are developed around sign definitions. What is then, to come one step further, the epistemological condition of such a definition? No matter which definition we examine-that of Peirce, de Saussure, Husserl, Mukarovský, or Klaus, not to go back to the Stoics, Augustine, Giordano Bruno, Descartes, Locke, or Leibnitz, we must ascertain whether it is synthetic (explained by saying that understanding the definition is a necessary but not sufficient condition for enabling us to know if it is true or not) or analytic (in this case, the truth must relate to necessary understanding). Again, as in the case of the differentiation between the mentalist and behaviorist perspectives, the borderline is rather fuzzy. Peirce sought to structure semiotics in a systematic, abductive form; de Saussure endowed his theoretical model with a rather strong inductive background. Mukarovský, well aware of the relation between the elementary concepts (what is called in mathematics the set of primitive terms) and the rules concerning sign operations, tried to find a compromise between them, a compromise that in his latest stage of evolution had nearly been reached. Klaus preferred a deductive structure. Peirce was too rigid, de Saussure too elastic. Husserl, taking distance from psychology, plunged into a complicated sign typology. Klaus has not noticed that his mentalist approach (the fourth dimension of the sign, the so-called *sigmatic* is the mental image) is not consistent with the deterministic *a priori* (the orthodox Marxist perspective) he accepts as a premise for his deductions.

Why we need sign definitions might be the next question to arise, since no definition can be objective or, in other terms, since each definition is, in the long run, a hypothetical statement (based on hypothetical principles). Definitions are pragmatic devices that increase the deductive power of a theoretical system. Peirce's sign typology, although obscured by the terminology adopted, is a direct result of his sign definition. In this respect, it should be stated that the criticism of the iconic representation (Eco, *et al.*) systematically misses the point since it concentrates on only one relation out of the three defining Peirce's sign. It is like using one dimension (height or width or depth) to characterize a three-dimensional object and after doing so, wondering why it does not work. Of course, what is said in the definition of the sign will be, if this definition is consistently applied, reconfirmed in the conclusion. Deductive systems can in no way avoid this gnoseological circularity. They guarantee the formal correctness of the inference but not the truth of the content inferred.

Misused in real semiotic context, Peirce's sign typology, as introduced through Morris, lost its consistency and accordingly its relevance. Intuitionists, known mainly through their critical

approach of the infinite (I will return to this) strongly objected to the so-called impredicative definition, that is, the definition assuming the existence of that which it actually defines. Strangely enough, Peirce was, as far as the law of the excluded middle is concerned, not far from an intuitionist viewpoint; but at the same time he gave that famous definition of the sign, in which he tried to construct the *sign* entity, which turned out to be an impredicative definition. Infinite semiosis—an idea much appreciated in our day—also contradicts the constructive proof peculiar to intuitionists, although Peirce's favorite logical operation was abduction, in which the infinite number of steps implicit in induction is reduced to a finite one. The pragmatic, or context-oriented, analysis thus proves to be epistemologically motivated also in historical research, too.

These examples—others can be added— were presented in order to show that although Peirce's semiotics derives from a *logistic* philosophy, it is not free of pragmatically related inconsistencies, which are not at all obvious at the syntactic or semantic level. His sign typology, confirmed in our days through the very strong mathematical apparatus of categories, is, however, an example of consistency and completeness. But in achieving this condition, the system lost its deductive power and be- came a *nominalistic* construction. Benacerraf and Putnam (1964) gave a characterization that, due to some of its possible intrinsic references, can be of use not only in respect to Peirce:

> Good man that he [the nominalist] is, he allows us to start with any- thing we like as the fundamental building blocks of the universe. But once we have made our choice, we are limited in the methods we may employ to generate (discover) new members.

Of course, abstract signs, like those denoted by the types Peirce described, do not exist as such but to generate new relations, differentiating several types of objects, or interpretants, legitimate within the system. Exactly the opposite position can be noticed in de Saussure's semiology. The sign results as a *tertium quid* linking *signifier* and *signified.* The list of primitive terms is limited and heterogenous (identity and value come together with signifier and signified). The very strong epistemological tool of freezing a given sign process—that is, of establishing the synchronic axis, as opposed to the diachronic—permits high resolutive power but a very narrow perspective because the main semiotic characteristic—dynamics—is abandoned in favor of a meticulous flash picture.

Whether contemporary semiologists like it or not, the subject matter is the sign. However, the question is not to ascertain something true or false about signs, but meaningful or meaningless. The social principle affirmed by de Saussure (Peirce affirmed it, too) is not part of the system; its pragmatics was defined later by the Prague Linguistic School where Mukarovský's work dwelled on the concept of function. This was a very important moment because until this moment, the sign had been understood as a relational device (a view still strongly held). The predominantly linguistically oriented pre-semiotic research was focused on the relational qualities of signs due to the premises involved in this perspective (Elmar Holenstein [1976] presented these premises in a very nuanced manner). As soon as other semiotic systems (especially aesthetics) were approached, it became certain that signs could no longer be understood as only re-presentational means or as neutral entities which inter-mediate—that is, that signs were components of thinking

processes and could be seen as a source of knowledge. The relational aspect is not epistemologically irrelevant, but the functional one provides a better explanation of what is usually considered the object of our knowledge or, as stated above, the source of it (the metaphorical tone of the word *source* should not push us to the Cartesian standpoint). However, it should be recalled that in certain contexts—which means in certain pragmatic situations—relational implications can appear as functional, or functional as relational. In reality, signs display both relational and functional properties, a fact confirmed in both specialized and integrative disciplines, anthropology in particular (cf. Winner, 1979).

The historical examples given above are quite restrictive; they do not represent the entire domain in which so many other epistemologically relevant tendencies have imposed themselves. One, at least, deserves our attention, especially because we can identify a not at all insignificant way of thinking and acting behind a way of speaking. Those of us who read books and articles in which semiotic subject matter is approached have noticed the tendency towards attributing life to signs. It is not unusual to read about how signs *influence* each other, how they *interact,* how they *participate* in semiosis, how they are *born* or *die,* etc. The old question of whether the existence statement should be taken literally or figuratively thus arises. In comparison to the number, (the number is also a type of sign) whose existence can be and has been disputed, the sign is accepted not only as a mental construction but also as a very real product, at the extreme, all culture being considered as a sign system (cf. Lotman).

Still, every now and then within the realm of semiotics, the question of *universals* is directly or indirectly posed, and I would not suggest that the medieval tone of the term *universal* should prevent us from examining it. If we accept the view that the reality of properties or of values, which are abstract in nature, is expressible through signs, then we accept the reality of the sign itself and wonder if it is to be understood as an abstract entity. But although we cannot produce numbers or qualities (roundness, redness, etc.) or values in their abstractness, we can produce signs and signs of signs (STOP, ONE WAY, for example) and signs of signs of signs, *ad infinitum.* We can produce the sign representing a number, a color, a quality, a certain value. This proves that the sign has a dual nature: that of a universal (so to say) and that of a real. Within semiotics, signs are real abstract entities (a realist would say), as real as the object for which a sign stands or the signifier embodying it. Let me paraphrase again: Semiotics must be discovered in just the same sense in which Columbus discovered the West Indies; and we no more create signs than he created the Indians (cf. Bertrand Russell's 1901 reference to arithmetic and the reality of the number).

In the meanwhile, it was shown that this not unattractive perspective can lead to pragmatically unacceptable inconsistencies. The realm of signs accumulated in different cultures constitutes a very strong context that can be continuously completed through more discoveries (in the sense Russell had in mind in the text paraphrased above). At the same time, each such attempt results not only in more semiotic objects but also in a progressive change of our semiotic knowledge. The journey results in more signs that we create. This self-reflexive nature of semiotic praxis is revealed only at the pragmatic level. Relevant to the epistemological condition of semiotics, as an integrative praxis, is perhaps the attitude expressed in the realistic perspective but in no case the implicit function (*discovery*).

The knowledge of signs, in simple or complex semiotic systems, makes possible an a priori rational insight and this explains why so many scholars have been seduced by the conclusion that the laws of semiotics are reducible to those of logic or of mathematics—bringing us back to what is called the logistic perspective-or to those of the most complex sign sys- tem known, that of language. (According to this reduction, semiotics is nothing but a part of linguistics. Conceptualists deny the reality of universals in the outside world but not the reality of thought, thus inconsistencies concern thought processes and not the pragmatic of signs. It follows, however, that we have to somehow free semiotics from its dependence on abstract entities without really going back to the intuitionist program, although some of its procedures will remain applicable (constructive proof, for instance).

Now that we have discussed the main epistemological positions, a doubt should be expressed: Are signs, no matter what device (the definition is a device) we use to identify them, independent of us; that is, do they have an objective nature? In other words, should we expect objectivity in the realm of semiotics or settle for expectations similar to those we have in reading fiction, perceiving art, falling in love, or considering, let us say, political conflicts or even ideological *systems?* The rigorous pursuit of semiotics has consisted of proving statements about signs or sign processes considered in their generality, but not always in their general context. Formalizing procedures of all sorts have provided the investigative means appropriate to proving, at the syntactic and semantic level, the above-mentioned statements. Logical properties, such as consistency or completeness, were properly investigated, but it turned out after all that the relevance to semiotics as such of this type of investigation is not too great. No one should ignore the meta-theoretical status of semiotics. Investigation of its logical properties forces us to a meta-meta-theoretical level of reasoning, and to succeed in proving consistency or completeness at this level would mean to adapt Hilbert's restrictive procedure (constructive methods) in order to make possible an agreement about the validity of meta-semiotic reasoning.

There is little to be said, I assume, as to why consistency is a desirable property for a semiotic theory. If one can prove a statement and its negation within the same theory, the theory as such ceases to be a legitimate gnoseological device since its pragmatic consequences are no longer foreseeable. Completeness is a different type of property and some philosophical theories affirm a status of generic *incompletability*. (Strangely enough, the Agnostics and the post-Hegelians— Marx included—share this affirmation.) To be incomplete means that there are valid statements (at the semantic level they would be called *true* statements) about the subject matter which cannot be deduced from basic definitions. In other words, these definitions do not express all the relations between the primitive terms or are even missing some of them. In certain contexts, this is obvious. Such contexts constitute the source of those extra-valid statements. Peirce's sign definition brings together sign (*representamen*), object, and interpretant but fails to provide a statement about non-referential signs (where the object is *constituted in* the sign process, not *outside* but *inside).* His system, analyzed through Gödel's procedure, proves uncompletable. (In this respect, a book like Hofstadter's *Gödel, Escher, Bach* is a fascinating semiotic treatise, in which methods peculiar to artificial intelligence research are applied to very complex self-referential sign systems.) Semiotic truth cannot be identified with deducibility from definitions, and actually the product of semiotic investigation is not so much truth but *meaning*. We should be well aware of the fact that the interplay among different, partly conflicting theories and the impossibility of considering one more true or more meaningful or even more significant than

another, makes examining their legitimacy more difficult.

Semiotic applications to empirical situations, or the semiotic interpretation of various sign systems as embodied in verbal, visual, mixed communication or in signification always have to evince what makes such an application necessary. Final statements of such applications are of different sorts. Intuited results are semiotically confirmed; results obtained by means other than those peculiar to semiotics are confirmed and sometimes completed; new typologies can be established, etc., etc. This indicates that a certain deductive activity went on, of course in order to obtain more knowledge or different knowledge about the empirical situations approached.

But we have already noticed that the set of definitions (premises) determines the conclusions (inferences), which means that deductive semiotics can be only formally relevant, applicable to uninterpreted systems. Formalization, which goes one step further, helps us to escape the necessity of referring to semiotic laws, insofar as they exist and can be expressed as laws, or of referring to entities which are signs, meanings, sign processes. In this respect, semiotics can be turned into a set of procedures and the results to be expected are statements about the output of one or another type of procedure. Generalizing, we acquire inductive knowledge based on observations concerning the effectiveness of our procedures. In the first case, when the rules of deduction are accepted and applied, semiotics identifies itself with logic. In the second, it works like every other inductive science, and no one should be surprised by false inferences since complete induction is possible only in a few simple cases but never in semiotically complex reality. The so often and abovementioned distinction between analytic and synthetic knowledge should not be seen only as a purely philosophical matter. Approaching it helps us to understand what can be expected from semiotics in terms of better understanding, knowledge, significance, that is, in terms of its pragmatics. To put it in other words, can semiotic theories be applied to the world in the way geometry is applied by astronomers, engineers, and architects, or number theory by computer scientists? If we consider a physician elaborating on his diagnosis and inferring from symptoms (signs of an indexical nature), or a lawyer considering the legal system in comparison to the indices of a particular offense against the law, an art historian identifying an original painting or a certain artistic school, the stock market expert analyzing statistical data, a military expert working on strategy, etc., we notice a certain analogy in these very different activities. The physician employs a procedure, the art historian, lawyer, etc., too.

But as we know, there are better and worse physicians, art historians, lawyers, investment advisors, military men, etc., and to continue the list, we can mention artists, writers, politicians (no hierarchy is intended). If applied correctly to a given problem, geometry can be used to derive significant empirical statements. Semiotics has this chance only in certain fragments of its domain. If you have memorized the meanings of traffic signs and apply them correctly, you can diminish the risk involved in driving a car. But fever and body ache do not necessarily mean flu; a higher Dow Jones average is not necessarily an argument for buying or selling a certain stock; a highly qualified lawyer cannot always save an innocent client if the latter falls prey to overbearing circumstantial evidence or malicious cross-examination; anti-Soviet or anti-American policy is not necessarily the key to winning battles. Why these things occur—not to mention our conflicting semiotic evaluations of art, ideology, etc.—is no longer a secret to anyone involved, or not, in semiotics. The degree of objectivity of some of the signs we use is higher than that of others. While measuring a surface, we may commit an error due to our

measuring technique. Examining a patient entails an interaction between the one who examines (temperature, weight, pulse, etc.) and the examined (his resulting excitement, insistence on symptoms essential to him but which can be of secondary importance to the doctor, shyness, etc.). In other words, this means a different type of pragmatics. In the case when the object under examination is not a subject but a law, a painting, a political statement, an environment, etc., the examiner can be influenced by the object, and accordingly his interpretation cannot be the same as the one derived from applied geometry or number theory.

In such cases, even our concept of context loses part of its distinction. Objectifying procedures should be considered in respect to the consistency and completeness of our semiotic statements, but to assume that such procedures are universally possible would be pragmatically untenable. Generally speaking, such statements do not have a higher consistency than that peculiar to the logic of the individual subject applying semiotic principles to a certain object perceived from a semiotic perspective. If, as in Peirce's semiotic, the subject is part of the sign (the concept of the interpretant proves this), then the objectivity of any sign interpretation is limited to the given, socio-culturally determined objectivity of the implicit subject. On the other hand, if the sign reconstitutes the unity between the signifier and the signified—in order to introduce a higher degree of objectivity (Rossi-Landi [1973] speaks of labor bringing them together)—we can quite objectively define the signifier but never the signified, which has a Cartesian tone when preceding the sign. It was at this sensitive point that Mukarovský tried to imply the anthropological constants of man (symmetry, rhythm, etc.) in order to overcome difficulty, but he himself had to give up because man is not reducible to a set of constants.

Changed contexts, however, proved to influence in an important way the perception of such constants, their meaning and significance, and finally brought about improved models highly relevant for semiotics such as the one attributed to Lévi-Strauss (1976). The point, it now seems, is to elaborate on an interpretive dynamic system, which improves not exactly what we call knowledge, but the understanding of highly complex cultural phenomena—and thus the necessity to concentrate on invariants of a simultaneously relational and functional sort. The Peircian representamen is not such an invariant; neither is the de Saussurean signifier or similar sign components. Lotman thinks that the text, understood in a very general manner, is such a significant invariant. Others refer to ideology—here I would rather refer to Feyerabend (1975) than to secondary sources—or culture, or simply go back to the pre-semiotic stage embodied by Structuralist theories (structure understood here as the significant invariant under discussion). In order to make sure that consistency improves the deductive power of a certain semiotic theory, we must make sure that such a theory involves a real dialectic perspective, that is, that the whole is not the sum of its parts but the parts influence the whole; the parts are not independent but determined by the whole and can be understood in their dual reality as parts and components of the whole.

The holistic and hermeneutic functions should be under- stood as somehow complementary in each sign process. The epistemological solidarity between subject and object in semiotic processes is a significant quality of such processes. While putting together, for instance, a set of signs (such as symptoms. codes defining a style or way of adapting to a channel, laws, etc.) and relating them to culturally acknowledged meanings, we sometimes ignore the difference between a given set and the real object. Mathematicians know that the set of houses or men or numbers or

signs is not a house nor a man nor a number nor a sign and there- fore not a member itself. Russell (1919), who noticed this fundamental inconsistency of set theory, tried to avoid it by suggesting a hierarchy of levels: entities that are not sets (individuals), sets with members of the lowest type, sets with member sets, etc. Such a procedure can be applied in semiotics too, and it will give us better knowledge of the primitive terms (*object*, *representamen*, *interpretant* or *signifier*, *signified*, *sigmatic*, etc.).

But after all, we must come back to our language or, to be more comprehensive, to our culture, since language is part of culture and does not express entirely what is expressed in culture. There is nothing new in this idea, originating with Lotman, as already mentioned (and in direct continuation of the Moscow-Prague Structuralist school), although the line of argument is evidently different. But this is not the point. The intention is to look for a unified explanatory model in which the question of pragmatic consistency and completeness can be posed without the danger of it being again reduced to the logical level or to language (in the line of thought of analytic philosophy). The moment that we turn back to the whole called culture and consider semiotics as one of its subsystems, we again notice that two terms appear to be of primary importance: relation and function. These two terms are, however, peculiar to the very effective research method of field theory.

What I intend to do now is to examine the consistency or the completeness of semiotic concepts relative to field theory—in other words, to take semiotics in its *uninterpreted* form and to construct a theoretical field interpretation of it. Under this interpretation, the main statements of field theory, empirically proven, will become statements about signs and will prove to be true if the chosen model is correct. Thus we construct a theoretical device that allows us to infer from the consistency of field theory to that of semiotics, or at least to some components of semiotics, from a contextual, or pragmatic, perspective.

But before doing so—and I hope that the procedure explained above is clear enough—a preliminary question should be answered: Can field theory be applied to semiotics? The same question, but regarding ethics, was analyzed by Hartman (1946) in his unpublished doctoral dissertation, and I will partially follow his argumentation. The reasons for doing so should become obvious in the course of presentation. True, I could simply state, as has been done in other domains where field theory is applied, that such a procedure is legitimate and go on from there. But let us use here the results of the epistemological analysis of semiotic theories and remember that its meta-theoretical condition imposes a number of preliminary steps in order to make possible the interpretation of the results achieved, results which otherwise would be no more than names, numbers, or graphic representations.

Before starting this last part of the study, I should be state that the question under examination is not whether all knowledge is semiotically mediated—this would restrict the sign to its relational aspect—but rather how do we succeed in knowing what we know, in understanding what we understand and even what we can understand) what we can know? This second type of question involves the elements of dynamics and time. These two series of questions illuminate the functional level and together should permit the evaluation of the pragmatic implications of semiotics.

Derrida (1972), among not too many others, tried to liberate the concept of sign from its ideological content. The celebrated procedure of de-construction involves a historical journey (to its Greek sources, for instance, in the spirit of Heidegger's philosophical discourse) during which our concepts are revealed to be dependent upon tradition or culture. To such an extent, nothing but the need to free us of them should obsess the semiotician. Derrida is mentioned here not because of his extraordinary influence on the American semiotic scene, but rather because his epistemological attitude (in line with that of Peirce, a deconstructionist *avant la lettre)* is so relevant to the attempt I undertake here. In words much different from his, Susanne Langer (1938) described the situation of ethics from a strikingly similar perspective: "Ethics, which is one of the oldest of philosophical interests … is, in fact … archaic ... it has not outgrown the original formulations of Socrates…."

The same can be said, of course with the omission of Socrates's name, about semiotics. And we can continue her line of thought: We are still classifying types of signs. Semiotics is in much the same state as primitive substance philosophy. Instead of treating its avowed subject as the main concept it seeks to establish, it tries to describe empirical semiotic situations and semiotic works in terms of this concept. Moreover, it assumes an understanding of the very word (in this case *sign* or the terms used in other semiotic theories, Derrida restricting himself to *signans* and *signatum)* it ought to endow with proper meaning.

One final remark: Semiotics is still in the mythical state in which hypostatized concepts and generalized empirical data are its only abstractions. The conclusion, which Hartman perceived as a methodological tool for his investigation (I repeat, Susanne Langer speaks about ethics), can be extended to the state-of-the-art of contemporary semiotics. The notion of sign plays the same role in our semiotic theories as that of forces in early physics. I consider Derrida's attempt at deconstruction as highly significant, exactly because it reflects the need to transform semiotics in such a way that our procedures finally achieve greater independence, thus improving their pragmatic consistency or completeness. This necessity cannot be reduced to the tendency towards *scientization,* although implementation brings with it a certain amount of formalization or even a greater hope that deductive power will increase. Exactly as modern scientific (and not metaphysical) physics could not be founded on its own categories—force or *action at distance* are examples—semiotics, as long as it remains founded on its original categories (which Derrida discussed) cannot escape the ideological constraint which such categories entail in spite of our rational and cultural efforts.

On the other hand-and this is the main goal I aim at: the application of a concept like field, which Kurt Lewin (1936) applied as a method in his psychological research. This may contribute to a change in semiotics comparable, in Hartman's words, "to the transformation of the science from the Renaissance to our days … the result may be a scientific semiotics," not at all less open to creative interpretations, but of course with a higher pragmatic consistency and possibilities of testing the validity of its ascertainments. Scientific does not mean rigid *scientization* or the mechanical use of some scientific tools developed in a different type of pragmatics, that is, in a different theoretical or practical context than those peculiar to semiotics. We have to use (in the same sense Derrida attempted) cultivated, methodical (not iconoclastic) doubt in order to see if our obvious semiotic concepts do not, through their cultural-historical content (mainly metaphysical), influence our conclusions to the extent that these repeat in a form the *truth* (of a

historical-cultural nature) of its premises. In other terms, noticing that semiotics is tending toward preserving a deductive nature, we feel that we must work with, let us say, less *obvious* definitions or concepts and apply to *more fundamental* (this is a way of speaking since fundamentality does not, I believe, accept comparison) semiotic concepts, perhaps already derived from the pragmatic level and not built on the traditional progression syntactic-semantic-pragmatic. I dare to say that after deconstructing the sign (a perfectly epistemologically motivated gesture), the time has come and the method is available (I refer to field theory, but do not consider it an exclusive method) to reconstruct it, free of ideology. (Feyerabend might disagree with the view that field theory can be so considered, but this is another story.)

The fundamentals I suggest are *semiosis* (process of signs) and *configuration.* The reality of the sign can be proven only within processes of signs, only in the interrelation and functional dependency between signs. and whenever we appeal to a concept of sign, we deal not with individual signs but with configurations of signs in space and time, which are the ultimate context. Field—I refer again to Hartman—can be understood in the way it was originally used: "as descriptive or concretely observable bi-polar phenomena occurring in space and time" or "as denoting an ordering concept applied to any manifold of phenomena, whether actually observable or not."

A semiotic configuration (and this is what will be interpreted in the language of field theory) reunites the physical, material reality (what we know as *signans, signifier, representamen, ground, sign as such,* etc.) and the nonphysical ideal reality (*signatum, signified, interpretant, sense, meaning,* or however they be called). In no case should the names in parentheses be considered as equivalent to one or another dimension of the semiotic configuration, because as soon as a substitution is undertaken, the old content we got rid of through deconstruction would be reinstated. The real pole of the semiotic configuration experience is given by the space-time coordinates, the ideal by the interpretive procedures to be applied on the configuration data. In fact, every person, aware or not of semiotics or of its concepts, experiences the interpretation of semiotic configurations. Moreover, every person is *semiotically processed* through such semiotic devices as parental upbringing, school, church, neighborhood, radio, television, books and magazines, organizations of all sorts, courses, elections, etc., etc.

The process of signs is that which enables a configuration to change. In other words, the process reflects the strong contextuality of the semiotic configuration. Between scientific situations (like the one discussed in Derrida's analysis of *phoné)* and semiotic configurations (the so-called *premiers symboles),* an epistemological difference can be established: the scientific situation proper is conceptually clarified, that is, a conceptual frame of reference is already applied by the person or by the group experiencing it (the *flatus vocis* theory, in the example given above). The semiotic configuration is not yet defined but can be within different interpretations (in our example, the various theories of the symbol). The process of signs, as a primitive of semiotic theory, ought to fit the potentiality of the configuration's possible changes. The application of a frame of reference to a semiotic configuration is valid and legitimate only if it makes possible further developments.

Other criteria can also be applied: moral legitimacy (provided that the development of a configuration is not ethically detrimental, for example, like the development from the post-

Romantic to pornography), political legitimacy (from a democratic configuration to authoritarianism, religious legitimacy, etc.). Semiotic legitimacy is the most general and not bound to an end (not teleological). Every other type, although semiotically expressed, introduces a value frame of reference, a hierarchy, referring to the potentialities of configurational development.

Without attempting any (not even the most elementary) formalization here, we can say that the method proposed combines a semiotics having a single variable (the functional aspect is given through the type of dependency between the elements involved in a process of signs) with one having many; it reflects the *relative* nature of semiotics. As we know, each configuration can be interpreted in an integral, absolute way (here the semiotics of superstition, fanaticism, ignorance, etc.) or in a differentiated, relative way (what the superstitious perceive as a total sign of a catastrophic or fortuitous event proves to be a sequence of signs relating to a causal or aleatoric event, etc.). The element to be considered here is not the *correctness* of the interpretation—the superstitious and the scientist each infer correctly—but the premises, or the context, which means the pragmatics Involved. Inconsistency or incompleteness can no longer be seen as syntactic properties; they become obvious in the pragmatic interpretation. Of course, superstition, fanaticism, ignorance, etc., which all derive from the inconsistency or incompleteness of a certain semiotic interpretation, are not syntactic or semantic but pragmatic types of knowledge, action, condition, etc.

A new methodological question should already arise: can we speak, in analogy to physical field theory or to some of its application (in biology by Gurwitsch and Spemann, in sociology by Lundberg and Brown, in psychology by Lewin and Koffka, for instance), about an *invariant* making for identical interpretation of all configurations, independent of their scope and range? I doubt that the answer can be an outright *yes,* but I know that some configurations are, due to their scope and range, to be identically interpreted. Such configurations are traffic signs, certain military codes, or configurations applying to a restricted group (religious norms, ceremonials, etc.), to a limited interpretant. After identifying them, we can repeat the same question and thus be in a position to find out what causes them to be identically interpreted (at least during a certain period of time)—obviously not their syntax (which makes them recognizable), not even their semantic (which says what they express) but the pragmatics involved, represented through the normative energy embodied in such configurations. Out of the social context, their interpretation ceases to be identical; the semiotic interpretational consensus fades away.

The process of signs—the other primitive of the theory I propose here—is fitting also in case the potentiality of the possible configurations changes. Changing the frame of reference (traffic signs collected by different persons, imitated, deconstructed, etc.) means to change the pragmatics. The legitimacy of such a change has to be examined in the same social context in which the univocal interpretation was instilled and semiotically insured by strong contexts. The theory as such advanced here is an abstract theory and does not apply mechanically to specific semiotic configurations. What we have examined, and sometimes illustrated with examples, are configurations in general or, in the language of the method introduced, bi-polar field configurations. Those specific theories I referred to in methodological terms do not interest me from the perspective of their shortcomings but rather in the light of the attempt I am making to apply the field-theoretical method to the inter-theoretical domain of semiotics. The statements to

follow are not conclusive but hypothetical, deductive; their signification results from the procedure applied above. As a result, semiotics should be constituted as a frame of reference for phenomena in which *semiosis* and *configuration* represent the primitive terms.

By a semiotic field we understand a state of tension (expressible in terms of energy but not necessarily reducible to energy in the physical sense) existing between the two poles, real and ideal, peculiar to each interpretation of a configuration. The energy, if we decide to refer to it, "is the mental energy of the scientist who is endeavoring to solve the problem." Dewey (1938) brought problem solving in analogy to field processes, or as we would say here, to validly interpret configurations, processes of signs. Hartmann, whose line of thought deserves our attention, makes clear that sciences are creations of men: "A science is a living body of men, problems, institutions; it is not the rules set down once and for all, but rather the ever continuing effort of inquiry." Accordingly, the tensions of a scientific situation are "intellectual tensions" which are released or consummated when we consider the situation explained (cf. Lundberg, 1939).

The fact that each time we approach a configuration, we intervene in the process, was already given in warning. In other words, it is not possible to isolate the semiotician, and in general each person involved in the perception, evaluation, or interpretation of processes of signs, from the phenomena observed. The contents in question cannot be considered apart from the subjects, which means that we introduce our own assumptions, our concepts, our order in the field and we infer on the ground of an experience whose validity is definable in terms of the validity of these conscious or unconscious assumptions. The influence that the gesture of approaching a configuration of signs exercises, and inversely the influence of the object approached on the approaching subject, can be evaluated only from a field theoretical perspective. We relate the data of observation (methodical or not) to assumptions and to concepts defining "ideal cases" or "extreme cases," thereby, in Werkmeister's (1940) words, "establishing a maximum of order in first-person experience." At no time can we *say* that reality "really is" as we conceive it to be, but only that "the constructs of (modern science) are the most efficient conceptual means at our disposal for the integration of … experience."

The state of tension I referred to as characterizing the semiotic field is consequently the tension between the data of observation of configurations and our own assumptions (processes of signs) as represented in concepts, models of ideal or extreme cases, theories. The mentalist and the behavioralist perspectives are reunited, the field-theoretical model being relational-functional. The ordering power introduced in the field does not, however, confine itself to the experience involving a given semiotic configuration but develops beyond it into a heuristic pattern embracing similar objects of experience. Each time such a contextual experience takes place, the procedure (called in this type of approach "rule of integration," cf. Hartmann) is also affected, the main epistemological result of the field theoretical at tempt being the consciousness of the interaction between what is experienced—objective reality—and the *experiencer*. Each time subjectivity faces an objective configuration, it adapts to the latter and of course influences the potential processes of signs. The more data are processed, and the more consistent the processing—that is, the more complete the algorithm implicit in our theoretical frame of reference—the more objective our concepts turn out to be, without reaching the absolute degree. The splitting into these two extremes does not mean that we position ourselves in the tradition of

dualism (Peirce's critique of dualism is well enough known so that to repeat this arguments here is not necessary); rather, it gives us the possibility to identify what is called the *ideal* pole of the field, the ordering concepts. These are not the mere reflection of semiotic configurations but rather rules of integration, gnoseological procedures.

Each time a configuration is systematically or randomly studied, what happens is nothing but interaction. Data do not radiate from the configuration; our concepts do not act as eyeglasses. To be in the field means to impose a preferential flux of data (sometimes detrimental in respect to knowledge) and to notice how your eyeglasses are influenced by the image perceived. Purely observational situations or purely theoretical/conceptual explanations are epistemologically impossible. The dialectic interweaving of the two poles in the field is a fundamental characteristic of semiotics. That is why to choose between what is known as the Galileian and the speculative systems (the first concentrated on the reality of observed data and on the assumption that everything can be measured, everything has a *ratio,* the second defending philosophical interpretation) is the wrong way of solving the tension between the two poles of the field. But I had better leave the judgment of the insufficiency of contemporary semiotic theories aside and prepare the closing statements of this study.

Sign configurations can be found as already present in the field or can be produced with or without an assumed definite goal. Configurations that we observe lead to an ordering principle and project the energy of our intuitions on the observed phenomena. This is nothing more than a frame of reference erected in such a way that it can be continuously changed, adapted to the object. It is rather a potential frame. We can now say that any aspect of reality turns into a semiotic configuration as soon as the question of establishing a frame of reference is imposed by the need to interpret it as a relational and functional object. The emphatic assumption that everything can be considered a sign is pragmatically untenable. Not the willful gesture of proclaiming signs justifies semiotics, but the need to establish a frame of reference for certain aspects of reality in order to define their meaning.

The fields known in the sciences are existent fields dealing with phenomena as they actually take place, phenomena which we describe in laws or concepts. The semiotic field is also existent, but it is not endowed with given frames of reference (the laws mentioned above); it displays potentialities; it is in continuous becoming. Semiotics can describe or explain phenomena, not as physical appearances but as processes taking place according to various frames of reference. As already stated, any configuration becomes semiotic when the question of potentiality, of possibility (embodied in the contextual reference) arises. Hartmann used in this context the so-called *fittingness* (to find the *fitting* frame of reference), which is determined by the potentiality of the chosen configuration. Generative or degenerative processes of signs are defined according to the dynamics resulting from the setting of a configuration into a frame of reference. The theoretical pole of the field involves a hierarchy, a value system, and according to this system, a frame of reference can be fitting while another will be unfitting. (In the first case, we speak of generative processes, in the other, of degenerative.) The selection of such frames is rationally justified, which means that we introduce a *ratio* (measure) into a reality which at first glance seems irrational. And as a result, a tension arises reflecting the tension between the ontological (to which the sign relates), logical and gnoseological, and, finally, axiological (functionally expressed) realms.

The semiotic field is only part of the generic human field in which transformations from one type of praxis to others continuously take place. The interaction of signs is nothing other than the expression of the interaction of people. The interdisciplinarity of semiotics should be understood as a condition of existence—sign processes imply the (ideal) integrality of human function—and not as a theoretical desideratum. Semiotics reflects the tension between the universal (general) and the individual (particular), a reason why the definition of sign can be only contradictory (in the sense of de Broglie's wave-particle duality model or of Heisenberg's and Schrödinger's uncertainty relation). If we do not at present dispose of the epistemological means necessary to the implementation of such a definition, we might elaborate them in the future. Until then, semiosis and configuration remain analytical instruments and generative models that should not be ignored. The legitimacy of the semiotic field theoretical approach is the unavoidable result of the pragmatic perspective from which the "mansions" and the "game played" in the "house of semiotics" have been analyzed.

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