

The Paradigm of Self-Organization

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Let us imagine that after building all the artificial intelligence machines imaginable, someone will remember semiotics and will proceed to conceiving a sign machine. The major controversy regarding sign definitions will obviously be restarted and, after enough energy is spent on dispelling the curse of dualism or triadic dogma, researchers will find themselves again involved in the realism-nominalism controversy. Indeed, no matter how successful our semiotic theories are, they reflect the understanding of a world put into signs or a world constituted in our signs, no more real than the processes (semioses) of their interpretation. After all artificial intelligence machines are built, we should be able to transfer many tasks to these machines. We should even be able to transfer functions of supervision, some indeed implying evaluation and decision-making. A sign machine, as many might have already remarked thinking of chess programs, robots, and machine learning, is nonetheless not a matter of complexity (reflected in notions such as tractability or computability), but a matter of the intrinsic dynamism of systems, in particular those systems within whose framework minds are constituted and identified through some irreducible characteristics. After all, to talk about signs means to talk about minds.

Minds exist only in relation to other minds. Consequently, signs exist only in relation to other signs. This relational identification is critical insofar as it suggests transcending the functionalist model - how minds accomplish the wealth of functions which makes us wonder about them - and adopting a model based on dynamic relations. We can learn about signs and sign processes only by considering the interaction among minds. Thus, although semiotics deals with sign processes pertinent to various forms of human praxis, it actually reflects our knowledge of how minds interact, because to know the mind means to know how minds interact.

In a series of various known attempts to deal with issues concerning the mind, we can easily identify the main explanatory systems (sometimes called "philosophies", or, for those with a propensity for European culture, *Weltanschauung*), as they succeeded each other. It is no surprise that the information processing model is but the most recent in this series; but it is a surprise that previous explanations (some going back to the oldest known cultures - Hebrew, Greek, Egyptian, Chinese, Indian, etc -) are often simply translated into information processing terms, or rediscovered in new explanations given in one of the dialects of contemporary information science language, or in "computerese". Like the "big bang" notion of the beginning of

the universe, the language of the mind (*lingua mentis*) is a rather old notion revised in the context in which sciences and humanities become computational disciplines. Obviously, attempts to produce computational models of the mind are the order of the day. But so are attempts to computationally explain how signs function in language, in the realm of the visual, or in non-homogeneous semiotic contexts (a level missed even by contextualists).

Information processing and the mind

People have always been fascinated with minds and have tried to figure out what it takes to duplicate some or all of their capabilities. The current interest in minds relies on a great deal of work done over the centuries by scientists, physicians, philosophers, and even artists and writers. Some of the most successful computer programs displaying the particular quality of the mind that we call intelligence are based on explanations and descriptions going back to a time when technology could not support more than mechanical activity. They are semiotic in nature insofar as they translate observations about human intelligence in new languages and represent it in computable procedures. Such intelligence displays algorithmic characteristics. Neural networks (actually connectionism, a family of statistical techniques for extracting complex, higher order correlations from data) make some non-algorithmic computations possible. The connectionist paradigm (inspired, as we know, by neural architecture) substitutes parallel distributed processing for central serial (hierarchical) processing under the assumption that it will have access to cognition processes at subsymbolic levels.

The connectionist alternative, embodied in networks of connected units with weighted interconnections, is not hierarchical.

It emulates, to the extent such emulation is possible, and within our relative knowledge of the brain, the "biological engine", claiming the ability to explain learning (and use learning techniques to accomplish some tasks). Massive parallelism, distributed information storage, and associative interconnections contribute to the simulation of intelligence. Moreover, the dynamics of such networks in evidence of nonlinearity and chaotic behavior, characteristics which many associate with or attribute to human intelligence.

There are several levels at which we can learn something about minds. One is the individual level: How does my mind work? Immediately a question arises: When? Because there is no such thing as the work of a mind in general. Minds are circumstantial, and we know, either from systematic observations or from anecdotal evidence, that there are great minds, identified as such due to their creative capacity, which fail in handling trivial issues. And there are minds never suspected of any creative contribution which handle extreme cases at peak performance (the case of idiots *savants*). To know one's individual mind means to understand how we, as individuals, relate to others - semiotically or not - constitute our reality as one of life and practice, and go through changes which are far from being only biological.

A second level is represented by our interest in the minds of others. This means to understand that no matter how much we would like to find a universal human mind, we shall always find minds - various minds - irreducible to one another. The abstraction of the mind - an elaborate semiotic reality - which people try to reach by elaborate analysis of what is common to various interacting minds, is the result of ignoring the concrete nature of contexts as determining the functioning of human minds. Minds can be understood only in their dynamic reality. A mind stalled at a given instance of its interaction with other minds ceases to be a mind. Indeed, the underlying reality of mind constitution and interaction is that of a process.

The third level corresponds to the categories of minds. As we have seen these categories result from the circumstances of human life and work, and can be defined with the help of the broader concept of experience, which semiotics still treats only marginally. Indeed, categories of the mind are categories of experiences and can be expressed through our distinctions of forms of intelligence, as displayed by human beings in their practical life.

The fourth level, probably most relevant to semiotics, is that of identity (a central notion in de Saussure's system), i.e., of the actual interaction of minds.

It reflects the relational condition of our minds in the sense that minds are media for semiotic interaction, in particular for exchange of information related to human experience. Relations describe the nature of whatever unites or alienates our minds. Peirce's obsession with the logic of relations appropriately reflects the fact that to describe the nature of our minds requires that we describe the nature of their relations.

Representation

Are minds representational? Do minds work on representations? Do minds generate representations? First of all, the concept of representation as such might be in our way if we do not establish a notion we agree upon. I tend to look at representation as the act of re-presenting, i.e., presenting something again with the understanding that this presentation might be totally different from what it represents, but which nevertheless can be understood as related to it in some way ("Secondness", in Peirce's philosophy). In order to take advantage of the results representation made possible, I do not want to discard the notion; but I redefine it in order to avoid its intrinsic limitations. Representation implies recognition of the presenter as related to what it represents, and as such is a relation. Representations can have different functions: evocation, stimulation, information, association, among others not always transparent to those involved in realizing a representation. In this capacity, representations are functional devices, which constitute the underlying mechanism of behaviorism. A good systematic typology of representations was given by Peirce, who distinguished among representations based on direct interaction between the represented and the

representamen (called indexical representation and exemplified by fingerprints, wind direction, pointing as a sense of movement); on likeness (called iconic representation and exemplified by a photograph or drawing of someone, a graph); and on conventions agreed upon, called symbols. This brings about the immediate necessary distinction that symbols are not arbitrary conventions; they are constituted and submitted by minds in their interaction and are dynamic representations. Indeed, indexical signs are quite stable and result from inductions (observations over time). Iconic representations, although affected by time, preserve a series of correspondences between the represented and the actual representation.

They result from comparisons, i.e., through deduction. Symbols come about as abduction (hypotheses), when, in the interaction among minds, a critical mass was reached, which is exactly one of the points I want to make. Inference dominates symbol processing.

The representation model leads to behaviorism and finds its justification in a behavioral evaluation. In short, it ascertains that something is a realization of a description (in this case, the representational theory of the mind) if it behaves as though it had this description. The circularity of the realization argument, which undermines the entire Morris approach) cannot go unnoticed. It projects a concept of the mind based on discrete mental representations corresponding to a rather static world.

Critical Mass

The relation among minds becomes constitutive for each of the minds when a critical mass is reached. I am not speaking about numbers (how many minds make for this critical mass). I do not have simple addition in mind nor some length measure (such as lengths of minds in a string). The critical mass - a metaphor borrowed from nuclear physics - corresponds to the nature and complexity of the relations established among minds. It is a dynamic coefficient resulting from the shared world of minds interacting. This shared world integrates, but is not reducible to, the space of physical copresence (if any), time as interval of interaction, or any shared convention constituting the symbolic system. Minds are thus identified in the physical world, social environment, spiritual realm, and cultural contexts (defined as artificial, i.e., products of human art in the broadest sense of the term). This is the macro-level of our minds. The critical mass can be defined only in respect to semiotic circumstances of interaction, which explains why I define minds as the sense of context. So many times, physical co-presence does not result in the identification and expression of minds. Moreover, under precise circumstances, physical copresence might even preclude the dynamic constitution of the mind. Think about all those mass demonstrations (in Hitler's Third Reich, in Red Square, in the 60's on college campuses around the world, in any ritual of hatred, overzealousness, and fanaticism in today's world of still unabating activism) which have never constituted more than the

expression of instinct, irrationality, and dogmatism. But negative examples, except for allowing for a fast lesson in the meaning of some events, do not constitute theory. To turn from negative examples to acquired positive experience, we know that there is a critical mass in education (obviously not represented by a packed auditorium in which the teacher is replaced by some sophisticated video installation), in forming a community (of shared religious, political, and cultural values), in establishing a family. The critical mass leading to the relations through which minds identify themselves depends on the nature of the interaction, the characteristics of the interacting subjects, and the nature of the relations established. Socrates was convinced that education is a one-to-one relation, the only one through which minds are formed. Plato thought that he knew the right size of ideal state and the right form of government so that interrelations are constituted for the good of everybody. Utopias are built on the assumption that there is a general rule for achieving and maintaining the critical mass. The macro-level at which the critical mass is reached (or not) is related to the micro-level. This can be defined through what is actually processed by our minds once they are established in the interaction through which the critical mass is reached.

This brings back the issue of representation, a critical matter not only because we build machines to process representations - the assumption is that a good representation of a problem is already a solution to it - but also because some believe that if we understand representations, we understand the mind. How much representation can be involved in the attempt of a mind to know itself? Is the mind part of the mind it desires to know, or does it undergo some kind of splitting, such as a copy (representation) of itself and the original looking at the copy and making some inferences? Or, to continue the main argument (which is the existence of the mind only in interaction with other minds), is that interaction a representation or a reality? (Obviously, representations constitute a reality of their own). The series of questions can be continued for a while, although a certain odor of speculation starts permeating the space of our doubts. Peirce defined intuition as a "cognition not determined by a previous cognition" (1931: 3.567), i.e., non-representational. He also stated that our notion of ourselves is the result of an inference. Since it is not based on previous knowledge, this inference must result from something else - precisely from instantiating, i.e., being our representations before we externalize them, before we share them with others, before they become our language or any of the sign systems (visual, auditory, olfactory, etc.) we use. The process is one of self-constitution performed by our minds as we interact when we project ourselves upon the reality of our physical existence.

The micro-level of the mind is the level of this self-constitution, non-representational but experiential, with a pattern of self-similarity and the condition of a dynamic configuration. In other words, there is no inherent logical structure, only a projection of what is inherent in the environment of our existence. This existence has the nature of a continuum, which requires that we be, that we embody our representations.

Anticipation

All of these elements will be given with even more detail. Let us start with the anticipatory character of our minds. The physical reality of the human being (our body, in short) is much more stable than the reality of the mind. It took thousands and thousands of years before we noticed changes of height, anatomical, and physiological constitution, and changes of functions. It takes a very short time to notice changes of mind. One can say, using the jargon of the functionalists, that the “hardware” is relatively invariable. Nonetheless, our relation to the world takes place at various levels, one being the level of the body. There are direct interactions, such as those manifest in the pace of our movement when we climb a hill or walk on an icy surface. And there are mediated relations, such as the ones we establish with other human beings or when we use tools (materials or spiritual). In both types mentioned, our mind is present as the medium of our continuous self-constitution. We project ourselves in the understanding of circumstances, whether we ask ourselves “Why do I slow my pace when climbing a hill?” or simply do it; whether we take time to understand what others tell us, whether we reflect upon the nature of the tools we use or simply make use of them to achieve some goal. We embody both direct interactions and the interpretation of mediated relations, thus projecting our sense of continuity against the background of changing context. Each instantiation comes into existence in a domain of infinite possibilities characterized in terms of the potential relations through which minds are constituted and identified. The term used in the mathematical theory of dynamic systems is configuration. In view of the meaning the same word has in current computer science - the structure of a system and the connections among parts - it seems to me that minds can be described as succeeding configurations, all in anticipation of events and occurrences, respecting patterns of similarity (which account for the notion of personality), and of scaling (which accounts for the notion of human types).

Minds are in anticipation of contingencies, of future contexts - another reason for my calling them the human sense of context. The anticipatory nature of our signs is a consequence of the anticipatory nature of our minds.

Anticipation and self-constitution

Let us take the configurational aspect to a finer level of detail. Strictly speaking, the micro-level of mind dynamics cannot be uncoupled from from the biological reality of the human brain and body. But as the reader might have already noticed, my interest is focused on minds, not on brains or bodies, although I agree that for the understanding of human minds, knowledge of the brain and body is necessary. It is, however, too early in the line of thought I pursue, to approach the biological level, especially because the physical reality of the brain and the complex functioning of the body

(especially the nervous system) are only necessary, but nevertheless insufficient, conditions for the emergence of minds. It is impossible to explain without accounting for the mind's role in specific performance. The nature of the brain's biological processes and that of the body's functioning make inferences from such processes to minds relevant only in the context of mind interaction (such as in learning, evaluation, planning, etc.). If there are laws in the macroscopic realm of mind relations, it is quite improbable, to say the least, that we could derive them from the deterministic laws of the biological micro - or macrostructure. I would go so far as to hypothesize that minds drive the brain and body and determine the nature of acceptable, or unacceptable, biological processes. This reflects the autopoietic nature of the entire human being, i.e., the self-constitutive character of our existence. We are not representations, but biological entities constituting their characteristics in the course of practical experience and semiotically embodying them. Henceforth, it is quite irrelevant to regard the human being as a representation machine unless we expand the notion of representation to include the projection of our own experience and constitution in the representing entity, and see representation as a continuum, i.e., as an analog, not digital, process. Thus, if we are part of our representations, and part of our interpretation of representations, we actually confer upon them the reality of our own existence. At the same time, we make the existence of the world dependent on us, on our biological reality. Such representations are no longer relevant as individual entities, but as networks corresponding to the entirety of the context they are generated in. These networks do not reflect the context as it appears, but as we anticipate it in view of our needs, desires, and strivings.

Minds are in anticipation of all those semiotic entities that we call images, sounds, mythimagic occurrences, political ceremonies, legal principles, and symptoms (meteorological, medical, mechanical, etc.). The abstraction of a disease (a network of symptoms associated according to experience), as well as the typology of symptoms, are semiotic products of mind configurations and prone to change once new practical experiences related to the biological imbalance and our attempts to correct it justify such a change. Myths are constituted for practical purposes, and the magic becomes a dimension of our life when minds select, out of all anticipatory configurations, those relating the understood (again, a network of realizations), to an experience above and beyond the human being. Those who are accustomed to looking at everything as a representation of something else, and not a constituted human experience which we interpret by becoming part of the experience, pursue the second degree practice of asking how appropriate the representation is, instead of continuing the experience. Minds as semiotic configurations are in anticipation of every image or text in the sense that minds appropriate them and make them part of the dynamics of our own experience (cf. Nadin 1987). Minds are never neutral in respect to the anticipated. They might constitute desires, goals, expectations, biases, or anything else involved in the way we bridge from present to future states. The anticipated can be confirmed, or it can lead to new configurations, such as those corresponding to worst-case scenarios: "Be prepared for..." I assume that when Heraclitus (as quoted by

Diogenes) said, “Much learning does not teach understanding”, he might have had in mind that it is not by storing, retrieving, and matching knowledge that we understand things or events, but by “throwing various nets” in anticipation of questions, situations, and decisions to be made.

A new Perspective on Representation

It is probably necessary to insist on the significance of my criticism of representation. I suggest that our theory of representation should be founded on the idea that representations reflect only a small part of our experience and that, for a better understanding of our own nature and the condition of our existence, we need to consider not only reflective mechanisms, but also constitutive and communicative mechanisms as they relate to human experience. The three aspects are connected and correspond to the relational condition of our integrated existence.

Our practical life, whether physical or spiritual, always involves a triadic basic relation: the elements related (a and b, such as two individuals, groups, or larger entities), and the relation (Rel(a,b)) in its concrete determination. Accordingly, we cannot limit ourselves only to interpretations of representations (adequacy, in principle), but we have to consider our own projection into the interpretation (projection of our biological, social, cultural, etc. reality), as well as the communication involved. In other words, semiotic representations (especially minds) are not containers of information or knowledge about other things or events; they are continuously completed by our participation in their interpretation and shared in successive acts of communication, i.e., infinite semioses. This completion takes place in every concrete instance that our practical life requires, and results in projection of our own continuous change in a continuum of changing expectations, desires, and striving. Thus, each mind is in anticipation of representations in the sense that it is a perspective from which presentations are interpreted; and it is also an instance in bringing them together (which is their communication) for practical purposes. Minds also segment the continuum and define particular domains within which consistency and completeness can be achieved. This segmentation corresponds to practical requirements and also represents a form of anticipation. They are configurations of a distinct nature, with a limited but nevertheless noticeable dynamics. Once constituted, they are kept in relation to the continuum of human practice and constitute a referential framework.

Minds facilitate understanding contexts in the sense that they embody pre-understanding (which can be called prejudice, if the negative connotation is removed), or intentionality, as well as the conditions of existence under which we acknowledge any given context. Minds search in the domain of the possible and allow us to choose, so that the possible (Firstness) becomes real for the instance of interaction among minds. Minds refer to actions and are the center of our activity, not of our contemplative existence (thinking, as Descartes called it). Therefore, minds have a practical nature, brought to

fruition in the anticipatory configurations through which they come into existence. As already mentioned, there is an important element of continuity (captured in Peirce's category of synechism) that integrates the various configurations making up our minds. Leibniz (1704) advanced a maxim which can be applied to understand how continuity of configurations is achieved: "Nature never makes leaps". The preparation phase which our minds maintain in their successive reconfigurations indeed eliminates leaps.

As a dynamic functional reality, our minds might maintain what Pylyshyn (1984) called a transducer, "bridge from physical to symbolic". Accepting this suggestion, I submit that the transducer consists of, among other components, a hardwired relations component. In the process of continuous reconfiguration of our minds, the transducer keeps the cognitive clock synchronized with physical reality. In anticipation of the practical implications of the model of the mind that I suggest, I can say that phenomena of aging (of individuals, institutions, nations, etc.) can be seen as phenomena of desynchronization and of progressive loss of the ability to anticipate and reconfigure. Children (and all new forms of organization), on the other end of the spectrum, evolve to the condition of anticipation, i.e., learn interaction and thus "learn" their own minds, acquiring evaluation (and self-evaluation) as well as planning skills.

Coherence and integrity

Human coherence and integrity, which our minds express, evolve from the dynamics of the succeeding configurations and from the self-similarity already mentioned. Human coherence and integrity are not homogeneously preserved in all our practical experiences. The experience involving visual contexts is quite different from language-based practice, from the experience of sounds, smells, etc. For instance - and I shall limit myself to visual - white lilacs should be seen as blue, and yellow forsythia as green, when seen in the bluish light of dawn. But we see them as white and yellow, respectively, because our minds dilute the actual light with the light of complementary color. The coherence and integrity of visual perception is not based on the coherence and integrity of the physical world, but on the consistence of our experiences, and thus of our relational minds. Experiences in language are the best proof of this. As Quine (1960) put it, sentences meet the test of experience "as a corporate body", not one by one. Thus language embodies the same relational mechanism and does not express, as some believe, functional states of the brain (such as desires, beliefs, etc.). Minds are relatively independent of the physical world, but dependent on the processes through which they are relationally identified. This is even more evident when we consider dynamic events.

Indeed, minds are not cause-and-effect machines, are not deterministic devices, and, what is even more important in view of the current approach to emulating minds by machines, minds are not - or not only - problem solvers.

Obsession with representation made us believe that minds are activated by the problems people encounter and that the final proof of their performance is the way they handle problems. Minds actually generate problems insofar as they generate our conscious existence in a world of interactions which bring our identity to expression. Minds participate in our reciprocal commitments, as evidenced in our practical life of physical or spiritual activity, making these commitments possible and, furthermore, even necessary, once they are perceived as characteristic of a systematic domain. In this universe of commitments, the interaction of our minds takes place in the concrete form of generating alternatives and expanding the set of choices. This is why I would not define the activity of a beehive as proof of bees' minds. They perform in a closed systematic domain. If minds were present, this domain would change and alternatives would be generated. As with any universe of anticipation, the universe of minds is incomplete and open. All our machines - mechanical, pneumatic, or electric - are, through their nature of being our constructs, complete and closed.

When the rule of representation, and the according functioning based on it, are the only ones considered (by ignoring the constitutive and communication levels), the system is reduced until it reaches completeness and can be closed. Minds generate and support distinctions, which can be in language, behavior, or any form of human interaction. Minds do not distinguish in a pre-existent world, but constitute the distinctions as a wireframe model of the world. On this wireframe, minds project properties pertinent to human experience as related to the context. In view of the exceptional importance of the visual in the interaction among minds, many have attributed mind qualities to our eyes, or considered them an extension of our brains. The significance (i.e., limitations) of this attitude will soon be evident.

The constitution and continuous reconfiguration of our minds takes place as new experiences that we are physically and spiritually part of develop and make "that which is at variance with itself agree with itself" (again, Heraclitus). That is, they not only engage the human being, but also become understood. The understanding of the mind and its dynamics represents what we call "intelligence". In the framework of representation, the understanding and solving of problems are related. Our entire experience with tools (anticipation of new practical circumstances, goals, and actions) results from understanding, which is a function of intelligence. In the paradigm of constitution, understanding is of our own nature and mind.

In communication, understanding is of what brings us together and allows for sharing. The dynamics of interaction of minds confers upon our intelligence the nature of processes, sometimes integrative, other times differentiating, and more often than not, synthesizing. The mathematics of branching (for example, the Galton-Watson process, the Markov process in Hausdorff spaces) as well as diffusion (as in Brownian motion) are probably the closest instruments of quantitative analysis for the processuality of our intelligence. But more relevant to the understanding of intelligence as process are the various practical forms of human experience, among which education is of exceptional importance. In anticipation of the final remarks, dedicated to

the practical implications of these ideas, let me point out that an education focused on problem solving and which ignores the aspects of synthesis and communication is a sure avenue to neutralizing intelligence because it misses the significance of the configurational aspect of minds and the anticipatory character of the processes through which minds come to existence with the understanding (self-awareness) of their functioning.

Understanding, whether rational (through discovery of the ratio, the measure of things or events, and inference from it to functionality) or intuitive (not mediated by previous knowledge), takes place in time. In the course of the process of understanding, the mind continuously checks against the understandings of others. After all, understanding is the initial level of interpretation. It requires the cooperative activity of minds interacting, and embodies "the benefit of the doubt". (We settle for an understanding after discounting differences in the measures applied or in intuitions. Putnam calls this the "charity" in interpretation). All this states is that intelligence and mind are not one and the same, and that intelligence is a prerequisite for future action. This makes it a valid subject for the field called artificial intelligence, opposed to the mind which requires a different strategy of explanation. To understand means to achieve abstracts levels of explanations which make possible the instantiation of the concrete in our human practice. There is a level of abstraction in doing what we do, which explains why the emulation of the tools we use will never suffice for duplicating the same activity. Initiative is perhaps the most abstract of all the components of our practical life. Probably art epitomizes the process I refer to. The act of painting, dancing, or singing is highly abstract. The result - the particular image, dance, or song - is highly concrete and individual (substratum of originality). To own Picasso's brush, or to be able to manufacture brushes identical to his, does not turn an individual into a Picasso. The abstraction of each instance of his process of painting escapes even the most sophisticated explanation.

Painting does not become a reproducible exercise of intelligence, but remains a form of projecting one's experience in new experiences. The infinity of the process of understanding (challenge to our intelligence) and interpretation results from the experiential condition of the product, not from its so-called representational qualities. The same holds true for any other form of human practice. Art has been idealized in the tradition of romanticism, and the artist singled out as an existence of exception. Understanding the mind, however, means to also understand the variety of minds and the circumstances under which some might be considered more important or significant than others. This is also part of the process we call intelligence.

Representation and Semiotics Today

How pertinent are these remarks to the state of affairs in semiotics, some might question. But not before I do so myself. In our moments of self-awareness, we perhaps realize that despite progress in defining the field and

in shedding new light on some interpretive issues, semiotics actually remains an unfulfilled promise. We know something about its potential, but either semiotic tools are very primitive or the methodology requires qualifications only rarely displayed in research, since the results we can display are really minor. I know nothing coming out of semiotics which could not have been achieved in current forms of research (structuralism, morphology, anthropology). Probably the perspective is broader; and this counts, too, but mainly as a hope for better results in the future.

But why should I or anyone else be surprised by the failure of semiotics, since the entire field has remained captive, in one way or another, to the representational scheme? There are no signs of humanity - the theme of this congress sounds like a political slogan, not a research statement - unless we decide to call the history of the mind and its previous embodiments in books, performances, monuments, musical compositions, etc. the object of our field. What is the reality of a humanity expressed through its signs, as projections of our current condition? No glory, but sweat and pain, because we are in a generic process of giving birth to ourselves, not of contemplating the world in which we live.

The legitimacy of semiotics as an explanatory body of notions constituting our own private language is doubtful. The need to finally address how we project our own reality in various interactions (some semiotic, some not) with others should be understood from the perspective of social expectations as they refer to semiotics.

This is a time of profound change represented, among others, by a new paradigm - machine intelligence. It implies a new way of thinking which I hope will permeate semiotic thinking as well. Other changes in the realm of social and political existence once more emphasize the need to be in anticipation of events, not reactive slaves to them. After all we have written and professed about change, we discover that we are not prepared to cope with change. A semiotics that is not based on a dynamic intrinsic concept is yet another form of intellectual perversion.

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