The “Semiotic Graph”:
A Situational Methodology of
The Communication Process Analysis

Abstract: Each of the problems brought up by the communication science has benefited from the implicit or and the explicit presence of semiotics, understood both as theory and integrating methodology. In fact, as already Umberto Eco postulated, there is no semiotics without communication, because any SIGN is appearing as the germ of a potential or real transmission of meaning(s), as the “hard nucleus” of a certain communication process namely, and there is no communication without semiotics, taking into consideration that each communication process is a SEMIOSIS, an action of transmitting a complex of coherent signs (message), through a specific channel, to someone with certain effects. By valuing such a dialectics and starting from the already existent models of communication, the author proposes an integrative methodology of assuming any type of semiosis (“situations of communication”), in order to describe / control them as complete and efficiently possible.

Keywords: semiotics & communication, unifying methodology, graph, structural & functional analysis, communication process optimization.

The fact that semiotics has appeared in all communication discourse types, from casual conversation to scientific exposition, from the generic didactic approach to the specific philosophical dialogue, with which humans have operated historically, was not accidental at all.

This happens because semiotics is characterized by a series of virtues which project it more and more to the center of debates in the scientific or/and philosophical community.

1. Essential functions of the signifying process of communication

The virtues shown by a careful and objective research in the world of signs using semiotic discourse result both from the very special importance of the tackled subject and from the special functions that semiotics assumes in its theoretical or / and applicative attempts to explain the cosmic and the human world, as an essential condition of any type of communication process.
1.1 The function of semantic representation

The quality of *homo significans* of the human being is statutory when applying the status of *sapiens, faber, loquens*, etc. In other words, we could not speak about human wisdom, its creative competence or its analytical virtues, outside the human signifying capacity to represent with sense, to denominate and to define basic sequences of the exterior and interior world. Or, more specifically, we could function only in particular forms of “thinking without language” (Stănciulescu, 1996: 34-38), since the symbolic and the semiotic function (the capacity to represent something with sense) is compulsory when distinguishing the “consumable matter” (food, shelter etc.) from the “communicable matter” (tools, gestures, sounds, faces, words). Animals act through trial and error, exhausting the variants for action until they solve the problem through an effort almost always allowed by their physical constitution. In contrast with these limits (but as possibilities as well) of animals, we can understand the virtues acquired by humans as beings that grew beyond animal nature, in the moment when humans acquired the signifying capacity (of the world / word). That was the moment when the power of spiritual information (as a form of manifestation of negentropy) was really established over physical substance (submitted to natural entropy).

In summary, the appearance of sign as a paradoxical duality of a signified / physical substratum with a signifier / informational content represents the moment of inflection of the passage from animal to human communication. In other words, at the moment when humans were able to generate signs, we also used them in a communicational situation, either implicit or explicit rational. Because, as a corollary to the competencies for which the semiotic function accounts, we can mention now the human capacity to *act with sense*, that is rationally, and to *act efficiently*, by praxiologically orienting action for the purpose of the “work well done”.

Concluding that there is no absolute separation between intellectual and physical work, one implying the other, Tadeusz Kotarbinsky notes that: “In either case it is recommended, among others, *to plan in advance the stages of the action*, and in either case it is good to *realize from ‘one move’* what someone less skilled succeeds in doing in a greater number of impulses” (1976: 22). Or, neither “planning” with anticipation, nor efficient “control” of actions is possible in the absence of signs:

– the intellectual plan is a mental (macro)sign of action;
– physical ability is the consequence of some previous (theoretical) informational and applicative accumulations, which could not be formulated, transmitted and preserved in the absence of a sign complex.

As a consequence, we can assess that human communication performance in all its forms is a result of the human competence to *efficiently generate and operate with signs*, and to operate semiotically. In an unconditional sense, *any semiosis has a certain finality* as it becomes “referent” starting point for a new semiosis thus forming what Peirce called “endless semiosis” (1990: 154). We shall continue by illustrating this cardinal conclusion with some other referential functions.

1.2. The function of the cultural signification of nature

By learning to translate the objects of the world into signs, human beings
managed to give a cultural significance to nature. This performance was made possible by the most general sign system: the language. There is nothing that can be done and be human outside the language, be it interior, implicit language that is often ignored or explicit language exteriorized into articulate words (verbal language), into gestures, plastic or musical representations (nonverbal language).

Let us consider the mutations of a history frustrated by the word: Babylon would have lacked the greatness of the tower that brought its fame, the “Greek miracle” wouldn’t have aroused the admiration of the generations to come, and the world would have probably been destroyed by a third world war. For these reasons, maybe we should give credit to the creative dimension of the word, which required the ancient magi to keep secret the names filled with divine power, and only whisper them once a year. If the power of the word to recreate the world by the mere reiteration of the cosmogonic scenario could be considered back then as an expression of magical thinking, nowadays it should be understood as a product of rational thinking, able to consciously shape new forms of existence by valorizing the creative valences of language. Without the word humans would have never become what we are; we would never have come close to our fellow humans by will, sensitivity and reason.

Since it is capable of such performances, the modern heuristic spirit returns to itself, to answer, in the terms of semiotic discourse, many questions of philosophy, such as: Where do the multiple forms of the “power of the word” come from? On what “heuristic bases” does language found its multiple performances? What is the mystery of the synergy of the ‘creative languages’ and what is the explanation for the feedback among the human creative means of expression, i.e. the spirit and the body? What are the reasons that stand at the basis of the efficient transformation of competence into performance, and what are the heuristic strategies meant to stimulate such efficiency?

1.3. The function of creative signification

The questions with philosophical connotations formulated above can be seen as spawn of Wittgenstein’s famous assertion: “The limits of my language are the limits of my world” (1991: 102). His assertion refers, above all, to a certain dimension of the (verbal) language that only semiotics can explicitly detail: that of the creativity of the language as a sign system. We mainly refer, in this context, to verbal language, thinking of the decisive role it accomplishes within the signifying process of the world:

– on the one hand, through its virtues, it is responsible for the manifestation of the multiple forms of the literary-artistic, philosophic or scientific language;
– on the other hand, it is able to translate in its own terms – through “plurimediality” (Wienold, cf. Plett, 1984) – any other type of creative expression.

Synthetically, the creative dimension of (verbal) language appears in the following positions (Stănciulescu, 1996: 6-12):

– it ensures the passage from image to imaginary, from nature to its signification, from biological to psychical, from the consciousness of representation to the consciousness of its (re)signification;
– it responds to the need to give things (the world) an original name;
– it satisfies the social need for linguistic communication, for storing and transmitting the (cultural) spiritual values made by humanity through time;
– it allows humans to oppose the tendencies of entropy in nature (of disorder and uniformity) through the knowledge-transmitting power of language, as an essential instrument of culture, thus contributing to its ‘creative’ transformation (not always beneficial, we must admit) and transforming itself.

1.4. The cognitive function

Humankind’s relatively early discovery of the fact that the world can (must) be assumed in the terms of its signs, through an adequate reading (decoding, interpreting), led to the forming of the semiotic act into an independent discipline since *illo tempore*. Its dignity to permit the indirect knowledge of the world through signs, implicitly gave it the authority of “sacred knowledge”: reading the destiny in the stars or the future in the entrails of the hunted animal, for instance, were only timid human attempts to control the unpredictable, invisible and transcendent.

This virtue of semiotics to assume some realities often impossible to tackle directly made it represent, under different names, a privilege of the ‘chosen ones’. For the learned theologian on the one hand, or for the common believer, the knowledge of God can only be made in a ‘semiotic’ manner: that of knowing the signs allowed (transmitted) to us by divinity. According to the “humility argument” formulated by Peirce, if these signs would not be manifest God would not exist, as a sign is always the reflex of something which exists in reality or, virtually, in somebody’s consciousness.

Let us consider, for instance, the sign of light through which the genesis of the world became visible, and the sign of the light-love, respectively, the grace of which divinity transmitted to humanity as a legacy. The intuition of a First Semiotician, the original source of the “light sign” which marks the primary creation, can be found both in the consciousness of primitive humans and bearer of myths (Stănciulescu, 1995) or of the modern creator.

This way of assuming the truths of the world identifies with an obsessing need of historical humans to know reality. Such knowledge starts from the phenomenal, or, in the terms of the chomskyan grammar (Chomsky, 1965), passes from the “surface structures” of the “(natural) language of the world”, through which the world describes itself and/or is described, to the “deep structures” preserved by often ignored laws of this language.

1.5. The unifying function

The considerations above suggest another valence of semiotics, that is: to allow a common approach of different types of discourse through which humanity tried to appropriate the realities of the world (magic, mythical-ritual, religious, philosophical, scientific, artistic, etc.). Indeed, one of the paradoxes of human knowledge is having related to the same reality with the cognitive instruments (means) of some relatively distinct disciplines. Such an approach submits from the very beginning to the partiality of all disciplinary explanation. As a consequence, intersecting the languages through which the world has been described in time, in a multitude of positions, and highlighting the intersection and differentiation areas,
presently appears as a necessity. Semiotics, now placed in a close complementarity with hermeneutics, is now granted the honor to play a part in building a new image of the world, an image, with a fundamental step closer to reality, which will have to be assumed by the humanity of the third millennium. This dignity has major importance in associating some other key attributes to semiotics:

- the quality of being both a study of signs and of the interpretative processes (Ducrot, Schaeffer, 1996: 140);
- the possibility of operating in the field of interdisciplinary knowledge, as a common area of the different perspectives regarding the signs of the world;
- the opening towards a transdisciplinary analysis, through the use of some paradigmatic concepts (present at the level of multiple discourse types) and by recovering their deep meanings.

The virtue of suggesting or building unifying paradigms (such as, for instance, the one of the information-energy, and of light as a ‘potential sign’, carrier of both energy and information), allows semiotics to participate as a mediator in classical disputes, still unsolved, such as between materialism and spiritualism, or realism and idealism. The quality of the sign having a material component (the signifier) and a spiritual one (the signified), together with the premises that all the phenomena of the world represent materializations of the duality between substance and energy, information and field, represent the premises of such mediation.

The creation of such paradigms at the intersection of the individual disciplines, on the one hand, and their interpretation according to the present needs of knowledge, on the other hand, assign to semiotics, besides the attribute of being a theory of signs, that of being a method (organon) of unitary reading of signs specific to different categories of languages. Two perspectives define, in this context, their complementarity (Szepe, Voigt, 1985: 143-144):

- **the centripetal perspective**, defined by the unifying aspiration of semiotics, mostly in its theoretical position;
- **the centrifugal perspective**, coming from the relatively recent involvement of semiotic methodology in the research (redefinition) of some branch domains, having as a consequence the appearance of some ‘special semiotics’, such as zoosemiotics, phitosemiotics, physiosemiotics, anthroposemiotics, etc.

The two perspectives (centrifugal–centripetal) are thoroughly complementary, meeting the duality between theory and application. They argue, on the ground of modern thinking, a pansemiotic vision, shaped over a century ago by Peirce, a vision that has only recently started to enjoy its full scientific relevance. “I could never study anything,” noted Peirce, “if it were mathematics, ethics, metaphysics, gravitation, thermodynamics, optics, chemistry, compared anatomy, astronomy, psychology, phonetics, history of sciences, man-woman relationship, wines, metrology, in a different way than as a semiotic study.” (Peirce, 1990: 56) The recovery and the justification of such a perspective gives more credit to John Deely’s conviction that, among the humanistic sciences and, we could add, the natural sciences, semiotics appears as a unique presence, being “a study which has as an object the matrix of all sciences and highlights the central place of history (the world, my note, TDS) for the process of understanding as a whole” (1997: 63).
A last and very important function of semiotics is the methodological function, which the following chapter will analyze extensively.

2. The methodological function of semiotics, a still neglected instrument of power

The major goal of this function is to make the explicit remark that, although they do not admit it, the representatives of all the types of cognitive discourse about the world operate, in fact, with the instruments of semiotics. Why is the unifying presence of semiotics not recognized / known in the process of all these types of discourse? However, from these considerations, we can conclude upon the existence of probably the most important theoretical-applicative virtue of semiotics. Semiotics offers a useful methodological framework (organon) for all the categories of natural and humanistic sciences, a unifying framework for structural and historical methodology, for synchronic and diachronic research. This is accomplished by the manifestation, within the limits of some particular types of discourse, of the main methodological possibilities of semiotic exegesis.

2.1. Defining steps of the “situational analysis”: a methodological approach.

A brief presentation in this context of some of the methodological instruments used by semiotics to (de)code the (macro)systems with which the human being operates in different contexts is justified by the fact that:

- some of these instruments have already been implicitly or explicitly used in applied semiotic researches to interpret different discourse / text hypostases;
- others (among which the “semiotic graph” method, for instance) appear as relatively new and integrative instruments and, consequently, can become reference sources for a series of other applied semiotic researches;
- the presentation of some of the attributes specific to (macro)signs (texts / discourses) permits the implicit definition, in this paper, of the “object language” of semiotics: the sign and the semiosis;
- the explicit mentioning or/and the implicit use of the methodological guiding lines offered by semiotics represent an impulse for the scientists who do not acknowledge them yet, to reconsider their perspective, for an enrichment of the analyses specific to their disciplines (whether sciences of nature or of society/humanity) with the contributions of the semiotic approach.

Among the methodological instruments that semiotics offers, situational analysis has integrating qualities (Stânciulescu 2004: 84-96). In other words, generally speaking, any communication situation, where semiosis (a communication situation by means of signs) can be studied by means of some kind of semiotic analysis. Against the background of these modalities of structural signification-communication (signifier vs. signified, text vs. discourse, deep structure vs. surface structure, etc.) or/and triadic analysis (syntactic, semantic, pragmatic), the sign, in its multiple codification alternatives, plays a mediating role within the truths of the world. These truths, discovered, preserved and transmitted across generations, have built different models of the semiotic situation in the history of the relation between the human being and the
world. The fact that there is a spiritual human unity across all times and places also results from a “curious” obsession of the triangular model in the description of the basic parameters of semiosis. If we notice that, in different forms, all these models can be found in the fundamental triad reality-thinking-language, the “obsession” of the semiotic triangle appears as a sign of an obvious correlation, starting from Indian and Greek Antiquity (Aristotle, the Stoics, Augustine) and extending to the well known modern ones of Charles Peirce, Ogden-Richards and others.

In the historical process of the diversification of human knowledge, there has been gradually understood that the three terms of the triad are not enough to explain the refined dimensions of the communicational process. Consequently, by considering more variables of the communicational situation, various models have been proposed, such as the tetrad (Gardiner, Lyons, Petöfi), the pentad (Lasswell, Morris) or the hexad (Heger, Ichazo, Ioan, Jakobson, Stănciulescu).

The mainly “situational” interpretation of any discourse type mentioned is going to be developed at the intersection between the theory of communication and the theory of information. Thus, it will be possible to analyze any type of human communication (type of historical discourse performed) as a semiotic situation (semiosis), as a multifactor set which assures the elaboration and the communication of some specific piece of information, as we are going to see later.

2.2. Towards an integrating methodology: the graph of semiotic analysis

The polygonal models which have described the terms of an “ideal semiosis”, starting from the classical triadic ones until the present-day hexadic ones, are confronted with the disadvantage of being “closed”, of having “an average level of generality”, respectively. Trying to overcome this “methodological closeness”, Michel Serres (cf. Carpov 1987: 83-84) proposes its opening through a signifying model of communication (semiosis) under the form of a network. We have completed the suggestions of the network model with the ones taken from the theory of graphs (Stănciulescu, 1995; 2004). Thus, the communicative-semiotic circuit can be represented within the limits of a “semiotic graph” with a variable number of elements.

We must admit that this methodological option can be implicitly or explicitly formulated and developed to a certain extent in the papers of semioticians like Jakobson, Sebeok, Eco, Deely, a.o. But not all the elements that can define semiosis structurally and functionally are treated in these papers. More specifically, they are not analytically researched, as they appear in the procedures of semiosis. That is why, our purpose is to subtract out all the functional-structural elements of “communicative signification”, as they were emphasized by linguists and logicians, by semioticians, praxiologues and psychologies, by mathematicians and specialists in communicational engineering (see also Marcus 1988: 330-335):

- From the linguistic perspective, completing Karl Bühler’s triadic representation (emitter, message, and addressee), Roman Jakobson adds another three dimensions to the communicational (creative) circuit: the code, the channel, and the referential. To the six structural guide marks correspond, according to Jakobson, an equal number of functions: expressive (emotive),
poetic (oriented towards the form of expression), conative (comprising a set of information about reality), metalinguistic (referencing the code used), phatic (related to the contact of the interlocutors, to the psychological connection), and referential (as against the objective reality reflected through the communicational-creative act). We can add to these independent components the structural dimensions of the context, of the framework of development of the communicational situation, and of the contextual function that are able to describe the influences that the framework has on the communicational process.

- Following the line of thinking of logics and semiotics (Frege, Peirce, Carnap) the distinctions between intension / meaning and extension / referent have been explored. The results of their investigations have allowed a decomposing of the referential parameter proposed by Jakobson into two corresponding subcomponents: intension (describing the informational content, the meaning, and the signified-discourse), and the extension (describing the referential / referent, signifier-text). The two structural guiding marks, adequately following the semiotic conception of “sign” itself, in its Saussurian hypostasis, generated the definition of two associated functions: intensional and extensional.

- From the perspective of another direction of research, the mathematical and the engineering theory of information and of communication, Shannon introduces three “technical” mediating components in the relation between emitter (creator) and addressee. They are the transmitter, the receiver, and the noise, to each of which would adequately correspond the functions of codifying and decodifying, and perturbation of the message (created during production) respectively.

- The praxiologic perspective follows finality as a structural dimension specific to the act of “creating communication”, being accomplished through a finalizing function. The multitude of effects and the practical consequences of the same creative approach, and their particular ways of expression, respectively, correspond to this structural-functional horizon.

- From the perspective of psychology and psychiatry (Beavin, Jackson), the process of “creative communication” receives a new component, the observer, who adequately generates a function of observing (therapeutic) in the case of the analytic approach. In the case of the creative approach, the theorist (philosopher, semiotician, hermeneutist, logician and linguist) receives the honors for materializing this last parameter.

The presentation / review of these parameters of the semiotic situation (open to ever other additions, of course) is confronted with an inflationary situation, generated by a sometimes accused imprecision and implicit redundancy of semiotic language. Thus, we will be confronted with the situation that the same parameter receives a multitude of meanings and semantic connotations, only apparently distinct, which could obstruct the intention of elaborating an operational model of semiosis.

The complementarities of the perspectives mentioned above permit their coupling into a unifying vision, built on the development, in a logical succession, of 12 major structural coordinates. As mentioned above, they are emitter, transmitter, referential (intension, extension), message, code, context, channel, noise, receiver, addressee, finality, and observer, with 12 associated functions, which are expressive, codifying, referential (intentional, extensional), poetic,
metalinguistic, contextual, phatic, perturbing, decodifying, conative, final and therapeutic. We could define all the situations of possible “signifying communication” through the interference of these structural-functional components that, according to their degree of relevance, can be integrally or only partially present in a certain process of communication, doubling itself or appearing isolated.

The connections among these above mentioned elements suppose informational inputs and outputs that can be ordered on an axis of temporal diachrony. There would result some major advantages from the use of the suggested model (Stânciulescu 2005: 66):

– the possibility of simultaneous representation (synchronic) of all the structural elements of the signifying communicational process;

– the possibility of targeting the analysis on a certain element of the semiotic discourse, or on a correlated group of elements, as taken out of the totality of the graph;

– the representation of the complex relations between the structural elements, by considering the afferent functional determinations;

– the delimitation of the major structural-functional steps which define the development of any complex semiotic situation;

– the suggestion of a procedural idea of the communicational act (semiotic) through the engagement of a diachronic, temporal dimension.

This last dimension is extremely important, as “semiosis functions only within the spatial-temporal context”, and, as the old Indian semiotics asserts: “What is indissolubly connected to space and time is always the sign of the other” (Al-George 1976: 51).

Equally describing the synchronic and the diachronic, the structural and functional dimension of a semiotic situation, the model of the graph corresponds to the need for an original and complex analysis of the communicative approach, for a complete knowledge of all its dimensions and valences. Practically, it involves and correlates all the methodological analytical instruments of semiotics. Specific benefits justify such a methodological option, where the reconstruction of semiotics itself as formulated here:

– proposes semiosis – as a “deep structure” which describes any process of communication-signification – as a reference object of semiotics, as a “surface structure”;

– describes semiosis through an oriented spatial-temporal graph, which permits a correlated knowledge of all the structural (synchronic) and functional (diachronic) dimensions of the semiotics / semiology itself.

By modeling the semiotic “situation of communication” under the form of a functional graph, we have implicitly defined its two essential benefits:

– theoretical effect: the plenary description / understanding of a certain type of semiosis, allowing the semiotician a more subtle understanding of its nature and becoming, of its connections and possible comparison with other type of semiosis, etc.;

– practical effect: the possibility to optimize / maximize the expected effects of the “situation of communication” taken into consideration, by following the next complementary steps:

– the structural analysis of the particular parameters of semiosis, namely: the micro / macrocontext’s features, the bio-psycho-logical and social characteristics of
the sender and receiver, the specific content of the transmitted message, the properties of the used codes, the transmission channels and the afferent noises, the estimated purposes and the obtained results etc.;

– the functional analysis supposes, in its turn, the determinations of the essential correlations among the structural parameters already defined, such as: the context influences upon the emitter / receptor personality or / and upon the content of the message, the channels etc.; the connection between the message content and its type of codification, purposes, receptors; etc.; this type of analysis (more and more complicated when the structural number of parameters are bigger) is essential because it involves the dynamic / constructive / systemic dimension of the semiosis, the rules / laws which make be functional its “text / discourse”; due to this connection each semiosis becomes a “grammar”;

– the optimization of the situation of communication, involving the explicit presence of the semiotician, finally correlates three complementary actions:

  a) the quantified evaluation (measurement) of each parameter of semiosis, of its structural and functional presence in the frame of the system;

  b) the stimulation / optimization of each a parameter, by specific modifying procedures (training, stylization, refining etc.);

  c) the reconstruction of semiosis in its complexity, by establishing the best connections (functions) among the already optimized structural element.

In conclusion, by correlating the above mentioned stages, the semiotic graph (Figure 1) indeed becomes a performant semiotic instrument, with an integrative operational power, able to:

– connect in its frame any other type of semiotic method, such as: a) the structural relationship between form (signifier, expression) and content (signified, sense), between the deep and the surface structures; b) the triadic analyses of the message: syntactic, semantic, pragmatic; etc.;

– analytically describe any kind of semiosis, no matter how complex it might be;

– determine the finality of the semiosis, by realizing its expected referent.

3. Instead of conclusion: “why are humans human”?

In this way, using the semiotic graph methodology, a natural “inner competence” (Chomsky) to generate semiosis becomes a “constructed performance” (Piaget) subordinated to specific cultural purposes. In other words: as a conclusion to this survey across the “power lines” of semiotics, we can explicitly admit that the answer to the question, “Why semiotic methodology?”, is implicitly an answer to the question, “Why are humans human?”.

Thus, quoting Mircea Eliade, we should consider that: “The sign is the seal that distinguishes the being from non-being and helps you, in the meantime, to identify yourself, be yourself, and not let yourself be carried away by the vital and collective stream. Any act of submission is an act of command, of stopping the amorphous, subpersonal stream. This is the only explanation for the Greek mystery: people who saw more forms and signs than all the others, people who stopped in front of them, respected them, «normalized» them – it is these people who acquired absolute freedom …” (1990: 194).

The liberty of meanings…
Figure 1. The “semiotic graph” of a communication situation
REFERENCES


