

THE CONCEPT OF LANGUAGE. FERRUCCIO ROSSI-LANDI AND THOMAS A. SEBEOK

by

AUGUSTO PONZIO and SUSAN PETRILLI

Rossi-Landi's work on signs and language

The Italian intellectual Ferruccio Rossi-Landi (1921-1985)(1) conducted pioneer research from the early fifties through to the second half of the eighties breaking new ground in philosophy of language and semiotics as practiced in Italy. His approach, at once unitary and multifaceted, may be largely characterized as a critique of signs, language and ideology in the context of studies on sign production processes and the processes of social reproduction generally. His focus was on the signs of anthroposemiosis, and, even more specifically, of anthroposociosemiosis.

Rossi-Landi's research may be divided into three distinct but interrelated phases (cf. Ponzio 1986b, 1988). The first covers the 1950s and includes his monograph *Charles Morris* of 1953 (revised and enlarged in 1975; see also Petrilli 1992 for Rossi-Landi's correspondence with Morris) and the volume *Significato, comunicazione e parlare comune* of 1961 (in fact was the conclusion of his work of the 1950s; this volume was published again in 1980 and later in 1998).

The second phase is connected with the 1960s and includes a series of four books. *Il linguaggio come lavoro e come mercato* of 1968 (now 1992, Eng. trans. 1983) proposes a general theory of linguistic production and sign production which is also a general theory of linguistic work and sign work, and lays the foundations for a study of the homological relation between linguistics and economics. *Semiotica e ideologia* of 1972 (reprinted in 1979 and again in 1994) completes the preceding volume with the addition of important essays, such as "Ideologia della relatività linguistica". The latter was also published as an independent volume in English with the title *Ideologies of Linguistic Relativity* in 1973. Lastly, the volume *Linguistics and Economics*, written in English in 1970-71 for the book series *Current Trends in Linguistics*, vol. 12, was published in 1975 (and reprinted in 1977).

The third phase covers the 1970s and includes the volume *Ideologia* of 1978 (now 1982). Here Rossi-Landi discusses the problem of the connection between ideology and language with a special focus on the problem of linguistic alienation. During this third phase

he also authored various essays that were subsequently collected in the volume, *Metodica filosofica e scienza dei segni* (1985).

Several essays from all three periods, including those which had originally appeared in English, were collected posthumously in the volume *Between Signs and Non-signs* (1992, ed. by S. Petrilli). This volume had been planned by Rossi-Landi himself but was among the many that remained unpublished during his lifetime.

Beginning with his essay of 1965, “Il linguaggio come lavoro e mercato” (first published in the journal *Nuova Corrente* and subsequently in a volume of 1968 with the same title), Rossi-Landi theorized that non-ideological spaces do not exist in social reality. By unmasking the structural presence of ideology in what is presented as “natural”, “spontaneous”, “realistic”, “a given”, whether in the realm of common behavior or in the scientific or literary spheres, etc., Rossi-Landi evidences the inescapable placement of all behavior in some ideological program, whether for the maintenance and reproduction of classist society, or for its critique and subversion. And thus semiotics according to Rossi-Landi’s approach becomes disalienating praxis.

An illegitimate use of abstraction and of the relation between “abstract object” and “totality” consists in believing that an abstract object covers and exhausts the characteristics of a totality otherwise ignored or left in the dark. This is the *pars pro toto* error discussed by John Deely in his entry on Thomas A. Sebeok in the *Encyclopedia of Semiotics* edited by Paul Bouissac, in which he shows how Sebeok’s semiotics also takes a stand against this fallacy. Like Sebeok, Rossi-Landi too in “Note di semiotica” (first published in 1967 in *Nuova Corrente* and later in his 1972 book *Semiotica e ideologia*), maintains that a fallacy of this type occurs when we fail to distinguish between semiology and semiotics.

Choice of the term “semiotics” instead of “semiology” to indicate the general science of signs does not simply express a terminological preference. Semiology as the study of post and translinguistic sign systems must not be confused with semiotics as the general science of signs, that is, of all types of signs.

Both Rossi-Landi and Sebeok avoid identifying semiotics with semiology thus understood, consequently they both free the study of signs from semiological glottocentrism. Instead linguistics remains a separate glottological science until it becomes aware of its extrinsic connection with the general science of signs in the light of which it may better determine its object and method of analysis.

According to Rossi-Landi’s approach, semiotics offers a theoretical site where separatism among the sciences may at last be overcome. Sebeok too worked in a similar

direction with his critique of the concept of bridge, which he substituted with the concept of web.

Rossi-Landi analyzes the problem of barriers in the human sciences and in this context worked specifically on the relations between verbal production and exchange, on the one hand, and material production and exchange, on the other hand:

My attempt aimed at bringing together two totalities, that of linguistic production and that of material production in a greater totality, so as to disclose some of the structures of this greater totality (Rossi-Landi 1972a: 288).

This orientation characterizes the whole course of Rossi-Landi's research from *Il linguaggio come lavoro e come mercato (Language as Work and Trade)*, of 1968, to *Linguistics and Economics*, 1975, the papers collected in the volume *Metodica filosofica e scienza dei segni*, 1985, and his posthumous volume *Between Signs and Non-signs*, 1992.

The first point which needs to be highlighted is that Rossi-Landi worked on and further developed Marx's approach to commodities, which he understood as a fact of communication and not as a relation among things, considering political economy as a part of semiotics. In the second place, Rossi-Landi studied linguistic phenomena with the categories of the science of economics according to the tradition that unites Smith to Ricardo and Marx. Unlike marginalistic economy, this particular approach to political economy provides us with adequate instruments to supersede the level of linguistic exchange (the linguistic market) and focus on the level of production, for the case in point the social relations of linguistic production (the social relations of linguistic work).

In his "Preface to the American Edition" of *Language as Work and Trade*, 1983, Rossi-Landi clarifies that many of his ideas "were already present, if only in an embryonic form, in the 1961 book" (his allusion is to *Significato, comunicazione e parlare comune*). However that may be, we believe that this volume of 1961 represents an important editorial event in itself on the scene of studies in philosophy of language and semiotics independently of subsequent developments. From this point of view, we cannot but agree with Rossi-Landi when he says that his own criticism of his 1961 book as formulated in *Language as Work and Trade* (1968, Eng. trans.: 24-27), needs to be reviewed (see also his introduction to the 1980 edition of *Significato, comunicazione e parlare comune*, Rossi-Landi 1980: 25-26). Viewed in the light of his project for linguistic-semiotic reflection oriented in the sense of historical materialism, the concept of "common speech" seemed "mentalistic", which led to the need of its reformulation in terms of social work.

In his introduction to the 1980 edition of *Significato, comunicazione e parlare comune*, Rossi-Landi himself (1980: 26) gives us the key. The notion of common speech proposes a general interpretive model, a theoretical construction and not a *direct* description of real processes, though of course it refers to real processes. Common speech is different from the concept of ordinary language as developed by analytical philosophy, just as it is different from Noam Chomsky's concept of competence and generative grammar. Common speech is a model with interpretive functions, an interpretive hypothesis applicable to different languages. With his common speech hypothesis Rossi-Landi aimed at identifying the general conditions of language-thought which make linguistic usage possible and which as such are valid beyond the limits of any one given historico-natural language. In fact, rather than describe linguistic usage, common speech (or "speaking") proposes a general model, a "model of speaking", as Rossi-Landi also called it, intended to explain linguistic usage, identifying those elements common to and constant among the different single languages, and as such it is applicable to all historico-natural languages. From this point of view that which subtends linguistic usage is not mentalistic or in any other way ontologically pre-existent with respect to natural languages, and the common speech model would at last seem to provide an appropriate conceptual apparatus for the analysis of real linguistic phenomena.

In his book of 1968, *Language as Work and Trade*, Rossi-Landi interpreted common speech in terms of work, *linguistic work*. Applying the "homological method" he transposed categories relative to material production to linguistic production. As he wrote to Charles Morris in a letter of March 20, 1965:

I am working on language, for a change — this time trying to take seriously what linguists and economists say about it. Linguists, for the obvious reason that most "linguistic philosophers" take so little account of linguistics as it is; economists, for the non obvious reason that I found an intriguing correspondence between certain analyses in the two fields (economics and linguistics) (in Petrilli ed. 1992c: 99-100).

Rossi-Landi continued his research across such theoretical volumes as *Semiotica e ideologia* (1972), *Ideologies of Linguistic Relativity* (1973), *Linguistics and Economics* (1975), and *Ideologia* (1978, Eng. trans. *Marxism and Ideology*), developing his *common speech* hypothesis into a theory of *common semiosis*.

For Rossi-Landi his theoretical and critical commitment was inseparable from his commitment of the political order. In 1967 he founded the journal *Ideologie* dedicated to the critique of ideology and cultural prejudice (the last issue appeared in 1972).

Rossi-Landi wrote some of his most important works while acting as Editor-in-chief of *Ideologie*. Important to remember is a long essay on the concept of language in Sapir and Whorf, with references to studies on Amerindian languages (Navajo, Hopi, Wintu), published in English as an independent volume entitled *Ideologies of Linguistic Relativity*, in 1973. From this point of view important to signal also are the essays collected in his 1972 volume, *Semiotica e ideologia*.

Rossi-Landi's essay on the homology between material production and linguistic production was first published in *Ideologie*, number 16-17, in 1972 (pp. 43-103), it was subsequently developed for publication in his volume *Linguistics and Economics*, 1975, and again in his 1985 volume, *Metodica filosofica e scienza dei segni*. As anticipated, Rossi-Landi developed what he called the "homological method" as his method of analysis studying homological relations between material and linguistic artifacts in the sphere of anthroposemiosis.

The homological method consists of identifying relations of resemblance of a structural and genetic order among objects from different fields of knowledge, which were thought to be separate. The homological method searches for homologies and not analogies, the latter being relations of resemblance of the immediate and superficial order. Despite apparent separation and different disciplinary provenance, material and linguistic artifacts can be considered as part of the same totality insofar as they are the result of human work.

With the aid of his homological method Rossi-Landi contributed to the critique of hypostatization, that is, the tendency to hypostatize and reify the parts that form a totality, but that are considered as separate from the totality while, on the contrary, they constitute the totality, belong to it. Following such an orientation then, Rossi-Landi was also able to take a strong stand against separatism among the sciences, which he contributed to overcoming:

The homological element breaks with specialization: it obliges one to keep in mind different things at the same time, it disturbs the independent play of separate sub-totalities, and calls for a vaster totality, whose laws are not those of its parts. In other words, the homological method is an antiseparatist and reconstructive method, and, as such, unwelcomed by the specialists (Rossi-Landi 1967-72 [1971], 16-17: 62, in Rossi-Landi 1985a: 53).

The homological relation identified between material and linguistic production is confirmed in the current phase of development, that of globalization, in the world economic system. In fact, communication is no longer limited to the exchange phase, but invests the production and consumption as well, so that what we produce and consume is also communication: not only are commodities messages, but messages themselves are

commodities. Rossi-Landi was well aware of the fact that linguistic work and material work had at last come together, making the following observation in a seminar held at Bari University, in April 1985, just a month before his death:

One can ascend along what I called the homological scheme of production up to a certain point, where an incredible thing happens, which is that the two productions merge into each other. This is a thing of the last few decades, because in the production of computers, hardware (in technical language), that is, a material body whose elaborated matter constitutes the computer, combines with software, that is, a program, so that an ensemble of logically expressible linguistic relations merge. Therefore the nonlinguistic, the objectual and the linguistic at a high definition of elaboration have merged into each other almost under our very eyes (Rossi-Landi 1985b: 171).

Sebeok's work on signs and language

An important tetralogy by Thomas A. Sebeok (1920–2001), *Contributions to the Doctrine of Signs* (1976), *The Sign & Its Masters* (1979), *The Play of Musement* (1981), *I Think I Am a Verb* (1986), was published over a decade, from 1976 to 1986. Since then other important volumes also followed in rapid succession. They include: *Essays in Zoosemiotics*, 1990, *A Sign is Just a Sign*, 1991, *American Signatures*, 1991, *Semiotics in the United States*, 1991, *Signs. An Introduction to Semiotics*, 1994, *Come comunicano gli animali che non parlano*, 1998, *The Forms of Meaning. Modeling Systems Theory and Semiotic Analysis* (with Marcel Danesi), 2000, *Semiotica dell'io* (with Susan Petrilli and Augusto Ponzio), 2001, *Global Semiotics*, 2001. Nor must we forget important earlier volumes such as *Perspectives in Zoosemiotics*, 1972, and numerous others under Sebeok's editorship, including *Animal Communication*, 1968, *Sight, Sound, and Sense*, 1978, and *How Animals Communicate*, 1979.

Rather than continue this long list of publications, it will suffice to remember that Sebeok has been publishing since 1942. His writings are the expression of ongoing research and probing reflection over more than half a century as he interprets the semiotic universe whose infinite multiplicity, variety and articulation he has substantially contributed to manifesting.

In Sebeok's work semiotics emerges as "global semiotics"(2) which unites signs and life. In this perspective semiosis is the behavior of living beings.

A lire les ouvrages de Sebeok, on est confondu par sa familiarité avec les langues et les cultures du monde, par l'aisance avec laquelle il se meut à travers le travaux des psychologues, des spécialistes de neuro-physiologie cérébrale, de biologie cellulaire, ou ceux des éthologues portant sur des centaines d'espèces zoologiques allant des organismes unicellulaires aux mammifères supérieurs, en passant par les insectes, les poissons et les oiseaux. Ce savoir plus qu'encyclopédique se mesure aussi aux milliers de noms d'auteurs, de langues, de peuples et d'espèces composant les index des ouvrages écrits ou dirigés par lui, et à leurs énormes bibliographies (Lévi-Strauss, "Avant-Propos", in Bouissac, Herzfeld, Posner 1986: 3).

In spite of an orientation toward totalization characteristic of semiotics, Sebeok in *Contributions to the Doctrine of Signs* uses neither the ennobling term “science” nor the term “theory” for his own approach. Instead he privileged the expression “doctrine of signs”, adapted from John Locke who maintained that a doctrine was no more than a body of principles and opinions vaguely forming a field of knowledge. He also used this expression as understood by Charles S. Peirce, that is, as charged with the instances of Kantian critique. In other words, not only did Sebeok invest semiotics with the task of observing and describing phenomena, in this case signs, but even more significantly, he believed that semiotics was to interrogate the conditions of possibility of signs which are characterized and specified for what they are — as they emerge from observation which is necessarily partial and limited —, and for what they must be (cf. Sebeok’s Preface to *Contributions to the Doctrine of Signs*). This at once humble and ambitious character of the ‘doctrine of signs’ leads to interrogation *à la Kant* concerning its own conditions of possibility: the doctrine of signs is the science of signs which questions itself, which attempts to answer for itself, which researches into its own foundations.

Contributions to the Doctrine of Signs has a strong theoretical bias; here Sebeok had already expressed his preference for semiotics of interpretation. In *The Play of Musement*, a collection of papers published in 1981, Sebeok explores the effectiveness of semiotics as a methodological tool and the potential range of its application, doing so in more discursive terms. In both volumes Sebeok’s interpreters are faced with an orientation in semiotics that is rooted in and consolidated by his theoretical formation.

In *The Sign & Its Masters*, the inbetween book, Sebeok considers the different possibilities branching out from the two semiotic alternatives described as ‘code semiotics’ and ‘interpretation semiotics’. Therefore, in addition to being a compact theoretical book in itself, *The Sign & Its Masters* also offers a survey of the various alternatives, standpoints and stages in sign studies as they have been incarnated through history by important scholars of signs, whether they have dealt with signs directly or indirectly. In his opening lines Sebeok describes this particular volume as “transitional” (see also the programmatic chapters 1 and 4, respectively “Semiosis in Nature and Culture”, pp. 3-26; and “Ecumenicalism in Semiotics”, pp. 61-84), a remark which in truth may be extended to all his research if considered in the light of recent developments in philosophico-linguistic and semiotic debate. Our allusion is to the transition from “code semiotics” which is centered on linguistics and, therefore, verbal

signs, to “interpretation semiotics” which unlike the former accounts for the autonomy and arbitrariness of nonverbal signs as well, whether “cultural” or “natural”.

In his survey of the masters of signs and of the problems relevant to semiotics, Sebeok discusses the various aspects that characterize these two different modalities of practising semiotics, which may be very simply summarized under two names — Ferdinand de Saussure and Charles S. Peirce. The study of signs is “in transit” from “code semiotics” to ‘interpretation semiotics’ as represented by these two emblematic figures, and in fact has now decidedly shifted in the direction of the latter.

Sebeok’s writings transform us into the direct witnesses and interpretants of (abductive) turning points in his research as he experiments, discusses, and evaluates different methods of semiotic inquiry, identifies possible objects of analysis and outlines the boundaries, or, better, suggests the boundlessness of semiotics as a disciplinary field. From this point of view *The Sign & Its Masters*, but in reality the overall orientation of his research, is transitional insofar as it contributes significantly to the shift toward interpretation semiotics freed once and for all from subordination to (Saussurean) linguistics and from false dichotomies: communication semiotics vs signification semiotics, referential semantics vs nonreferential semantics.

Sebeok’s critique of anthropocentrism and glottocentrism orients the general direction of his semiotic discourse and involves all those trends in semiotics, which look to linguistics for their general sign model. For what concerns Sebeok, his interest in cultural processes at the intersection between nature and culture has led him to consider the research of such scholars as the biologist Jakob von Uexküll (1864-1944), one of the so-called “criptosemioticians” Sebeok has studied most.

To free oneself from the anthropocentric perspective as it has characterized semiotics generally implies to take account of other sign systems beyond those specific to mankind. These sign systems are not alien to the human world, but they do not specify it. They concern the encounter between human communication and the communicative behavior of nonhuman communities within the species as well as with the general environment. They also involve the sphere of endosemiotics, that is, the study of cybernetic systems inside the body at both the ontogenetic and phylogenetic levels.

Sebeok’s position succeeds in avoiding any form of biologism as occurs when human culture is reduced to communication systems that can be traced in other species; just as he avoids, conversely, the anthropomorphic reduction of nonhuman animal communication to characteristic traits and models specific to mankind.

Consequently his doctrine of signs insists on the autonomy of nonverbal sign systems with respect to the verbal. Such autonomy is demonstrated through the study of human sign systems which depend on the verbal only in part in spite of its predominance in the sphere of anthroposemiosis.

Semiotics is not only *anthroposemiotics* but also *zoosemiotics*, *phytosemiotics*, *mycosemiotics*, *microsemiotics*, *endosemiotics*, *machinesemiotics*, *environmental semiotics*.

I Think I Am a Verb is a book which at once assembles a broad range of interests and which also acts as a launching pad for new research itineraries in the vast region of semiotics. The title evokes the words ringing with Peircean overtones of the 18th President of the United States, Ulysses Grant, on his death bed. In Peirce's view man is a sign and Sebeok's choice of a verb instead of a noun to characterize this sign (which not only each one of us is, but also the whole universe in its globality) serves to emphasize the dynamic and processual character of semiosis.

A fundamental point in Sebeok's doctrine of signs is that to live is to be involved in sign activity. This is to say that to maintain and to reproduce life and not only to interpret it at a scientific level are all activities that necessarily involve the use of signs. Sebeok theorizes a direct connection between the biological and the semiotic universes and, therefore, between biology and semiotics. His research develops Peirce's conviction that man is a sign with the addition that this sign is a verb: to interpret. And in Sebeok's own original conception of reality, interpreting activity coincides with life activity — in his own personal case all his life. If I am a sign as he would seem to be saying with his life as a researcher, then nothing that is a sign is alien to me — *nihil signi mihi alienum puto*; and if the sign situated in the interminable chain of signs is necessarily an interpretant, then 'to interpret' is the verb that may best help me understand who I am.

Sebeok's position is distant from Saussure's who limited the sign science to the narrow spaces of the signs of human culture, and still more reductively to signs produced intentionally for communication. On the contrary, for Sebeok no aspect of sign life must be excluded from semiotics, no limits are acceptable on semiotics, whether contingent or deriving from epistemological conviction. At the same time, however, contrary to eventual first impressions, Sebeok's work discourages any claims to the status of scientific or philosophical omniscience; indeed there is no expectation to solve all problems indiscriminately.

Sebeok explores the capacity for lying in the nonhuman animal world. We believe this particular interest has two main motivations. The first concerns his commitment to

contradicting the belief that animals can “talk” in a literal sense. This claim invests animals with a characteristic that in reality is species-specific and exclusive to human beings. Nor does the specificity of human language exclude the possibility of establishing a homological relation between human verbal language and animal language.

A Sign is a Just a Sign includes a paper of 1989, “Semiosis and Semiotics: What lies in Their Future?” (pp. 97-99)(3). Here Sebeok significantly adds another meaning to the term ‘semiotics’ understood as the general science of signs. This new meaning refers to *the specificity of human semiosis* and is of vital importance for a *transcendental founding of semiotics* as a doctrine of signs. Says Sebeok:

Semiotics is an exclusively human style of inquiry, consisting of the contemplation — whether informally or in formalised fashion — of semiosis. This search will, it is safe to predict, continue at least as long as our genus survives, much as it has existed, for about three million years, in the successive expressions of Homo, variously labelled — reflecting, among other attributes, a growth in brain capacity with concomitant cognitive abilities — habilis, erectus, sapiens, neanderthalensis, and now s. sapiens. Semiotics, in other words, simply points to the universal propensity of the human mind for reverie focused specularly inward upon its own long-term cognitive strategy and daily manoeuvrings. Locke designated this quest as a search for “humane understanding”; Peirce, as “the play of musement” (ivi: 97).

This particular meaning of the term semiotics is connected with semiotics conceived as the general study of signs and of the typology of semiosis.

The exquisitely human propensity for musement implies the ability to carry out such operations as predicting the future or “traveling” through the past, the ability, that is, to construct, deconstruct and reconstruct reality, inventing new worlds and interpretive models. The happy expression ‘the play of musement’ is used by Sebeok, interpreter of Peirce, as the title of his book of 1981.

In another paper included in *A Sign is Just a Sign*, “The evolution of semiosis” (pp. 83-96, now in Posner et al. 1997-1998), Sebeok explains the correspondences that exist between the various branches of semiotics and different types of semioses, from the world of micro-organisms to the Superkingdoms and the human world. Specific human semiosis, anthrosemiosis, is characterized as semiotics thanks to a modeling device specific to humans called by Sebeok “language” (it is virtually certain that *Homo habilis* was endowed with language, but not speech).

In another very important paper included in *A Sign is a Just a Signs*, entitled “In What Sense is Language a ‘Primary Modeling system’?” (now also in *Signs*, 1994), Sebeok describes language as a “modeling device”. Every species is endowed with a model that produces its own world, and language is the name of the model belonging to human beings.

However, human language as a modeling device is completely different from the modeling devices of other life forms. Its distinctive feature is what the linguists call “syntax”. Syntax is what makes it possible for hominids to have not only one “reality”, one world, but also to frame an indefinite number of possible worlds. This capacity is unique to human beings. Thanks to syntax human language is like Lego building blocks, it can reassemble a limited number of construction pieces in an infinite number of different ways. As a modeling device language can produce an indefinite number of models; in other words, the same pieces can be taken apart and put together to construct an infinite number of different models. Thanks to language not only do human animals produce worlds as do other species, but, as says Leibniz, human beings can also produce an infinite number of possible worlds. This brings us back to the ‘play of musement’, a human capacity which Sebeok considers particularly important for scientific research and all forms of investigation as well as for fiction and all forms of artistic creation.

Speech like language made its appearance as an adaptation, but *for the sake of communication* and much later than language, precisely with *Homo sapiens*. Consequently, language too ended up becoming a communication device; and speech developed out of language as a derivative *exaptation* (a term proposed by Gould and Vrba 1982). Exapted for communication, first in the form of speech and later of script, language enabled human beings to enhance the nonverbal capacity with which they were already endowed. On the other hand, speech was *exapted* for modeling and eventually functioned as a *secondary modeling system*. In addition to increasing the communication capacity, speech also increased the capacity for innovation and “play of musement”. Such aspects as the plurality of languages and “linguistic creativity” (Chomsky) testify to the capacity of language understood as a primary modeling device, for producing numerous possible worlds.

The Forms of Meaning. Modeling Systems Theory and Semiotic Analysis, co-authored by Sebeok with Marcel Danesi, further develops the fundamental notion of “model”. Sebeok uses the concept of modeling as proposed by the so-called Moscow-Tartu school (A. A. Zaliznjak, V. V. Ivanov, and V. N. Toporov. Ju. M. Lotman) where it is used to denote natural language (“primary modeling system”) and the other human cultural systems (2secondary modeling systems”). However, differently to the Moscow-Tartu school, Sebeok goes further to extend the concept of modeling beyond the domain of anthroposemiosis. With reference to the biologist J. von Uexküll and his concept of *Umwelt*, Sebeok’s interpretation of model may be translated as an “outside world model”. On the basis of research in

biosemiotics, the modeling capacity is observable in all life forms (cf. Sebeok 1991b: 49-58; 1994b: 117-127).

The study of modeling behavior in and across all life forms requires a methodological framework developed in the field of biosemiotics. This methodological framework is what Sebeok in his research on the interface between semiotics and biology proposes to call “modeling systems theory”. Modeling systems theory studies semiotic phenomena as modeling processes (cf. Sebeok and Danesi 2000: 1-43).

In the light of semiotics conceived in terms of modeling systems theory, semiosis — as we have stated a capacity with which all life forms are endowed — may be defined as “the capacity of a species to produce and comprehend the specific types of models it requires for processing and codifying perceptual input in its own way” (ivi: 5).

The applied study of modeling systems theory is called *systems analysis*, which distinguishes between primary, secondary and tertiary modeling systems.

The primary modeling system is the innate capacity for simulative modeling, in other words, it is a system that allows organisms to simulate something in species-specific ways (cf. ivi: 44-45). And as we have already pointed out Sebeok calls “language” the species-specific primary modeling system of the species called *Homo*. The secondary modeling system is the system that subtends both indicational and extensional modeling processes. The nonverbal form of indicational modeling has been documented in various species, whereas extensional modeling is a uniquely human capacity given that it presupposes *language* (primary modeling system) which as mentioned Sebeok distinguishes from *speech* (human secondary modeling system) (cf. ivi: 82-85). The tertiary modeling system undergirds highly abstract, symbol-based modeling processes. Tertiary modeling systems are human cultural systems (cf. ivi: 120-129).

Sebeok’s interests cover a broad range of territories ranging from the natural sciences to the human sciences. Consequently, he deals with theoretical issues and their applications from as many angles as are the disciplines called in question: linguistics, cultural anthropology, psychology, artificial intelligence, zoology, ethology, biology, medicine, robotics, mathematics, philosophy, literature, narratology, and so forth. Even though the initial impression might be of a rather erratic mode of proceeding as he experiments various perspectives and embarks upon different research ventures, in reality Sebeok’s expansive and seemingly distant interests find a focus in his “doctrine of signs” and in the fundamental conviction subtending his general method of enquiry that the universe is perfused with signs, indeed, as Peirce hazards, may be composed exclusively of signs.

As a fact of signification the entire universe enters Sebeok's "Global Semiotics". Semiotics is the place where the "life sciences" and the "sign sciences" converge, therefore the place where consciousness is reached of the fact that the human being is a sign in a universe of signs.

Sebeok has extended the boundaries of traditional semiotics or more correctly semiology which is restrictively based upon the verbal paradigm and vitiated by the *pars pro toto* error. He tagged this conception of semiotics the "minor tradition" and promoted instead what he called the "major tradition" as represented by Locke and Peirce and early studies on signs and symptoms by Hippocrates and Galen. Semiotics, therefore, is at once recent if considered from the viewpoint of the determination of its status and awareness of its wide-ranging possible applications, and ancient if its roots are traced back at least, following Sebeok (1979) to the theory and practice of Hippocrates and Galen.

Through his numerous publications Sebeok has promoted a wide-ranging vision of semiotics which coincides with the study of the evolution of life. After Sebeok's work both our conception of the semiotic field and of the history of semiotics have changed noticeably. And thanks to him semiotics at the beginning of the new millennium is proposing a radically broader view than that presented during the first half of the 1960s.

On language according to Rossi-Landi and Sebeok: some convergences

Rossi-Landi proposed and developed his hypothesis of language as work from his early writings of the 1960s onwards. The idea of "language as work" is an elaboration on the earlier conception of "language as common speech", that is, as a system of common operations that subtend the various historico-natural languages. In both cases we are faced with the attempt at progressing from the level of description of linguistic behavior (behaviorism), from the level of linguistic usage (Wittengstein), from the level of ordinary language (Oxonian philosophy), from the level of the "state of a given language" (Saussure), from the level of taxonomic analysis (Martinet), and from the level of worldview connected to a given language (Sapir and Whorf), to the level of explicitation of the structures and processes that produce those different historico-natural languages.

Rossi-Landi tackled the problem of surpassing the tendency characteristic of language theory, including Noam Chomsky's, towards descriptivism. Indeed, as much as Chomsky's work is oriented in an explicative and genealogical sense he too believes that his task is to describe an innate universal grammar. In reality, Chomsky's conviction is simply the result of his tendency to hypostatize language as much as he wished to explain it instead with his

universal grammar. However, Chomsky fails to distinguish between the genotypic level and the phenotypical level of language. On the contrary, evoking Marx's terminology, Rossi-Landi knew the focus in the study of language had to be shifted from the level of the "linguistic market" to the level of "linguistic work".

To speak of linguistic work does not simply mean to establish an analogy with nonlinguistic work. On the contrary, Rossi-Landi demonstrated that work and language are interconnected by a relation of homology. Language *is* work. According to this approach the two definitions of man as *laborans* and as *loquens* coincide. Natural divisions that oblige one to assign verbal work and nonverbal work, the production of messages and the production of merchandise to separate regions do not in fact exist. In both cases we are dealing with semiosis, with the *linguistic work of modeling*.

On the basis of such a claim it is possible to establish a connection between Rossi-Landi's concept of work, on the one hand, and the concepts of primary, secondary and tertiary modeling as elaborated by Sebeok, on the other.

Similarly to Sebeok, Rossi-Landi criticized those theories that reduce the problem of the origin of language to the problem of communication. As writes Rossi-Landi in *Metodica filosofica e scienza dei segni*: "We must evidence the nonreducibility of language to mere communication, otherwise it would not be possible to place the capacity of language in a coherent framework concerning the phylogenesis of nerve structures and relative psychic functions" (Rossi-Landi 1985a: 234).

In Rossi-Landi's view, the problem is the same whether we are dealing with merchandise or verbal messages: in other words, the problem is that of human work which produces messages and merchandise and puts them into circulation. The concept of linguistic work is the third and founding element, which is not at all kept into account by Saussure's dichotomy between *langue* and *parole*.

In Rossi-Landi's view, language understood as work is at the origin of the different historico-natural languages; these in fact are viewed as the product of language as work. Linguistic work reactivates languages and endows them with new value through the *parole*. The latter is individual only because each single elaboration is individual. However, the model of production is social.

In our view, all this puts us into a position to relate Rossi-Landi's concept of "language as work" to Sebeok's concept of "language as primary modeling".

Commodified and alienated work is a characteristic of today's social system. Work in the expression 'linguistic work' evokes something that is juxtaposed to play, and therefore

may lead one to believe that linguistic work contrasts with the “play of musement”, as described by Peirce. But let us remember that Sebeok too evoked the play of musement to the end of characterizing the human being as a semiotic animal, therefore to evidence specifically human primary modeling or what he calls “language”.

The truth is that the concepts of “linguistic work” and “play of musement” do not contradict each other. As Rossi-Landi explained work and play are not juxtaposed, indeed play requires preliminary work as well as work for its performance, work no doubt that is particularly agreeable and playful.

Another point where Rossi-Landi’s position and Sebeok’s come together concerns the critical stand taken by both against hypotheses that attempt to explain the origin of language on the basis of the need to communicate.

For both Rossi-Landi and Sebeok language is what makes the constitution, organization and articulation of properly human work possible. Speech and historico-natural languages presuppose language understood as the capacity for syntactic construction and deconstruction proper to human modeling which, as a result of syntax, is capable of producing an indefinite number of possible worlds.

Rossi-Landi’s critique of the alienated social world presupposes the capacity to conceive different worlds and, therefore, to muse utopically or scientifically about their construction. To the extent that they are capable of linguistic work, of the play of musement, human beings are in a position to question reality as it is and to work for a better world.

By working for reality that is other with respect to alienated reality, Rossi-Landi did not limit his approach to simply interpreting reality, typical of ordinary semiotics including Sebeok’s global semiotics. On the contrary, in relation to anthroposemiosis, Rossi-Landi worked for an approach to semiotics that was to focus on social planning, on the critique of ideology, therefore on the human capacity for constructing, deconstructing and reconstructing new and better worlds. From this point of view Rossi-Landi’s work may be associated to an approach in semiotics envisaged by the authors of the present article and which they have proposed to call “semioethics” (cf. Ponzio and Petrilli 2003). According to the semioethical perspective, Rossi-Landi may be included in an ideal line of development with other authors such as Mikhail Bakhtin, Victoria Welby, Charles Morris, Adam Schaff, and, despite a cognitive prejudice in the interpretation of his work, Charles S. Peirce.

Notes

1. Ferruccio Rossi-Landi has contributed significantly to the development of semiotics and philosophy of language. In the early years of his intellectual formation, Rossi-Landi absorbed ideas and methodological instruments not only from Italian culture, but also from the cultural traditions of Austria and Germany as well as from British-American traditions of thought. Several of his essays and books were originally published in English. For many years he lived in countries other than Italy, and in particular in England and the United States. He taught at the University of Michigan, Ann Arbor (1962-1963) and at the University of Texas, Austin (1963), which he revisited on several occasions, and acted as visiting professor at various universities in Europe as well as in America between 1964 and 1975. He also taught courses in philosophy and semiotics at the University of Havana and Santiago (Cuba). After a teaching appointment in Padova (1958-62), he only returned to the Italian academic scene in 1975 as Professor of Philosophy of History at the University of Lecce (South Italy). In 1977 he became Full Professor of Theoretical Philosophy at the University of Trieste.

Rossi-Landi's intellectual formation was heavily influenced by his critical confrontation with Charles Morris (among other things he translated Morris's important book of 1938, *Foundations of the Theory of Signs*); but other just as important influences include American pragmatism, operationalism, English analytical philosophy (he lived in Oxford between 1951 and 1953) with special reference to the studies of Ryle (Rossi-Landi 1955 is a free translation of Ryle's *The Concept of Mind*), and of course Wittgenstein. Furthermore, Rossi-Landi also revived the minor Italian tradition — which boasts such significant figures as Giuseppe Peano, Giovanni Vailati, Mario Calderoni, Federigo Enriques and Colorni — by contrast with dominant idealism symbolized at the time by Benedetto Croce and Giovanni Gentile.

Rossi-Landi contributed significantly to the intellectual scene as editor and translator and not just as author. He served as editor or member of the editorial board for various journals, some of which he had in fact founded: *Methodos* (1949-52), *Occidente* (1955-1956), *Nuova corrente* (1966-68), *Dialectical Anthropology* (from 1975), *Ideologie* (1967-74), and finally *Scienze umane* (1979-81), which count numerous contributions to the theory of signs.

For an exhaustive and critical study of Rossi-Landi's research see Ponzio 1988. Some of Ponzio's work on specific aspects of Rossi-Landi's theoretical production is also available in English in Ponzio 1990a and 1993a. The former also includes an essay by S. Petrilli on "Materiality of signs" (see also Petrilli 1986b). To the thought of Rossi-Landi has also been devoted a monographic issue of the review *II Protagora* (see Petrilli 1987a) and the volume *Reading su Ferruccio Rossi-Landi* (see Bernard *et alii* 1994).

2. The expression “Global Semiotics” is the title of a plenary lecture delivered by Sebeok on June 18, 1994 as Honorary President of the Fifth Congress of the International Association for Semiotic Studies, held at the University of California, Berkeley, now included in his volume *Global Semiotics*, 2001.

3. Originally written on invitation from Norma Tasca, representing the Associação Portuguesa de Semiótica, for the Portuguese journal *Cultura e Arte* 52, 1989.

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