How to Deal with Phylogenetic Memory from an (Inter)Semiotic Point of View?

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"Semiotics" is sometimes considered equivalent to "sign theory" but there are different sign theories in different currents of semiotics, while the everyday term "sign"'s reductionism shows that scientific uses are dynamic-relational. A look reaching back to Antiquity proves that sign theories were always an issue of reflection, but semiotics here and now (or "modern" semiotics including so-called postmodern approaches) is a transdiscipline, whose major currents are to be sketched out (structuralisms, pragmaticist-behaviorist traditions plus related ones, biosemiotics, socio-semiotics). The sign theories on which they are founded disclose that they stem from different currents of thought in the history of mind, and that their underlying intellectual interests are different too. In the history of modern semiotics, which spans about 150 years, finally also a kind of "intersemiotics" developed, comparative, on the one hand, and aiming at complementarity, on the other. Thus, intersemiotics is interested in the "common denominator" of semiotics-at-large. Actually, the most fundamental fact concerning semiotics is, however, that also modelling the sign is already a reductionist endeavor because the final-instance term is "semiosis", or sign process, whose involved components and their interrelationships are at stake when describing the functioning of the sign.

Shortly before the turn of the millennium, semiotics has entered its "encyclopedic phase", that is, with comprehensive meta-volumes like Sebeok (1986; 3 vols.), Bouissac (2000), especially Posner, Robering & Sebeok (1997-2004, 4 vols.), while also Nöth’s first Handbuch der Semiotik (1985), indeed at the beginning an introduction, has grown in its last version (2000) to a remarkable kind of encyclopedia. Each of these works has its advantages but also some blind spots, so that it can only be recommended to use them in their complementarity. Anyway, by this and/or parallel with this development, the controversies about the sign’s structure have become less characteristic, are actually more or less outdated, and are going to be replaced by the question about the deep foundations of semiotics. In the first edition of Nöth’s mentioned Handbuch, one can find an attempt at classifying the existing currents of modern semiotics of that time, which is a correct, although incomplete, report identifying far more than a dozen currents, which may have become more since then, but in view of the present aims, it suffices to refer to this enumeration, and to add, that biosemiotics at large, or zoosemiotics, for instance, where not yet in the focus of the author’s awareness but have indeed become a major field now.

In contradistinction, one could draft a more fundamental and therefore diminished typology based on the general points of departure. In this perspective, the two mainstreams can be easily identified, i.e. a philosophy-derived semiotics, with Peirce and Morris as the founding fathers, and a linguistically inspired semiotics (departing from Saussure; structuralisms in any sense). Then one can identify two clearly "deviating" wings: biosemiotics (departing from Jakob von Uexküll, main propagator: Thomas A. Sebeok), and socio-semiotics (founding father M.M. Bakhtin in his Volo_inovian appearance; most elaborate version Rossi-Landi’s). These are four qualitatively different currents since their immanent logic is entirely different: Peirce’s comes from thought (inference), the structuralisms from Saussure’s langue as the most advanced sign system, bio-genetic
biosemiotics from bio-logic, and socio-genetic socio-semiotics from socio-logic.

That is, the different currents can be condensed to four plus a zone of interaction, i.e. intersemiotics. The rise of biosemiotics as well as socio-semiotics, the first already in a distinct shape, the second in a way not yet clearly depicted by the mentioned encyclopedias, but obvious after careful inspection, suggests that the future discussions in semiotics, as far as it concerns its foundations, will rather concentrate on the differences (as well as possible coincidences) between biosemiotics and socio-semiotics (or anthropo-semiotics).

Thus it is recommended, that also a discussion on phylogenic memory in terms of semiotics has its place in the tension field between biosemiotics and socio-semiotics, considering the fact that already the classical sign theories are either mentalistic as such (Saussure) or speak deliberately of the "thought sign" (Peirce), and having in mind that one of the major functions of the sign is to store meaning. While biosemiotics, as a conditio sine qua non, refers to biological evolution, socio-semiotics specializes on cultural evolution. The question is, however, whether the latter has arrived at a far-reaching autonomy, or still depends, in the final analysis. on the first, and if, to which extent and in which regards and circumstances.

This is therefore the place to sketch the major features of these two currents. First, let’s turn to biosemiotics. Since Morris’s behaviorist foundation of semiotics it is already clear that sign theories have not to be restricted to human sign use but may also concern the means of animal communication (Peirce knew already about this, too, as is quite obvious in a theory some have positively, some critically characterized as pansemioti(ci)sm. The rediscovery of Jakob von Uexküll from the side of the semiotic community, however, has led to installing him posthumously as one of the founding fathers of modern semiotics. His work developed in the first half of the 20th century, and he was a zoologist, biologist, behavior researcher, and most of all an umwelt theorist, i.e. his environment theory is the best know of his accomplishments. What is less recognized outside semiotic circles is, that within his umwelt theory he also developed a sign theory which is crucial for the whole approach as such. For him, all this was simply "biology", but the present focus is a semiotic one, since the "objective of Umwelt-research is to develop a theory of nature’s composition, or to reconstruct the score to the 'symphony of meanings' that nature composes out of the innumerable surrounding-worlds (Umwelten)" (wrote his son Thure von Uexküll in 1983, who "translated" his father’s metaphors into modern more system-conscious language). A symphony of meanings must indeed rest on those elements which carry and convey meanings, i.e. signs. The central model of umwelt theory is the so-called functional circle showing the ecological niche of an organism, i.e. the interaction between an individual organism’s exchange with its (segment of) umwelt. On the subject’s side, the organism has perceptual and operational organs to either experience the umwelt object(s) or to (re-)influence them, while the object(s) seen as a connecting structure possess perceptual and operational cue carriers. In between subject and object unfold the perceptual and the operational worlds. Subject (meaning utilization) and object (meaning carrier) are linked in a whole, a sign (system). Actually, the umwelt is the representation of the environment in the organism. In the functional circle’s perceptual and operational worlds already appear what von Uexküll called Merkzeichen and Wirkzeichen, and he also identified some other types of signs, but one can see the whole relationship as a sign process (semiosis), whose components can be identified: "In the simple formula of sign = meaning carrier + meaning and meaning = reference to the meaning utilizer, 'meaning' has the central function of bracketing heterogeneous elements into a whole (the sign). [...] Thus the formula, meaning = link between carrier and utilizer, takes on the nature
of a dynamic process" (Th. von Uexküll 1987: 169). As mentioned in the beginning, the scientific understanding of "sign" is dynamic-relational, thus Jakob von Uexküll’s view fulfills this condition. This has the enormous consequence that semiotics, mainly stemming from linguistics and philosophy, extends its relevance from culture to nature-and-culture.

It was Thomas A. Sebeok’s major aim to deepen and to propagate this understanding of semiosis as well as semiotics; though a linguist, his point of departure was biology, thus he was an admirer of von Uexküll (although, concerning the mainstream protagonists, Sebeok also belonged to the Peirce-Morris line). He contributed to this expanded semiotics by developing biosemiotics as well as especially zoosemiotics; by hinting at the fact that there are myriads of sign systems outside the human species waiting for research; by steadily recalling also the medicinal roots of semiotics since Antiquity; and he added moreover the division between endosemiotics and exosemiotics, the first covering semioses taking place in an organism, the second covering semioses involving organisms and their umwelt. In his considerations about anthroposemiotics and vs. zoosemiotics he stressed the fact that many human sign phenomena belong at the same time to bio- and zoosemiotics. He contributed also to sign typology developing one especially useful for biosemiotics (signals, symptoms/syndromes, icons, indices, symbols, names), and his influence to push the whole semiotic community into a more "global semiotics" was indeed great.

Concerning the socio-semiotic current, there is also a true founding father, Mikhail M. Bakhtin (esp. 1929), who was the first major critic of Saussure. While the latter privileged langue as a system, Bakhtin emphasized parole, i.e. actualized, living, interactive language as the field proper of semiotic study, and thus arrived at his famous principle of dialogicity. As to the term "sign", he seemed to use it in a sense similar to Saussure’s, but emphasized the closeness of sign and ideology, contrary to Saussure. One can, however, reconstruct Bakhtin’s more complex understanding of (the components of linguistic) semiosis, as it shall be suggested here: in an "archetypical" way we could postulate that semiotics is about means of communication M, reference and/or reality R, senders S and percipients P in a more personal sense. We project "dialogue" as the central agens into a diamonds-shaped form. On the side of M there is sign as structure and ideology as superstructure: on the side of R first the theme, and then (social) reality, all this encircled by the context, while two two-sided arrows would point in the direction and from the direction of R and S, symbolizing enduring interactivity. It is widely accepted, that Bakhtin has been one of the precursors of sociolinguistics, and equally, that with his later works he has made important early contributions to what in the 1960s was called semiotics of culture, but his outstanding place in the ancestry of socio-semiotics has still to be more clearly established. It suffices for now to state, that there is a series of major authors building this current, such as Vygotskij, Lukács (in his sign-theoretic chapters), Schaff, Klaus, Resnikov, Schütz, Halliday, some Symbolic Interactionists, Robert Lafont, and many others, all of whom have in common that they stress the role of the sociality of human sign use, the relation and interdependence of signs and sign users, and the role of (Wo)Man as a sign producer and receiver (re-producer).

The most elaborate theory, as to that, is Ferruccio Rossi-Landi’s. In his early phase, i.e. in the mid-20th century, he was the first to introduce Morris’s semiotics to Europe. His declared aim was to extend Morris behaviorism to social(ized) behavior. He then criticized Saussure and the structuralist models by developing his own counter-concept of common speech (cutting across the Saussurean dichotomies), which later on he extended to common semiosis. In the background appeared already his concept of sign work, based on work as such as an anthropological constant. Work is defined as an endeavor which needs a worker W,
instruments I, materials M, an aim A, and (working) operations O, to render a product P; in the most condensed version (i.e. some factors already presupposed), a transformation triad M/O/P can be formulated. For sign work it is principally the same. This conception is the basis (or "hidden structure") underlying his most famous theoretical construct, the so-called *Homology of Material and Linguistic Production* (to be extended also to sign systems in general). Less known but equally important is however his unique sign theory condensed in the following sign model: a *signans* is the identifier of a piece ("coagulation") of society, the *signatum*. Both are melted together (for a while) to a sign (*signum*) as social result. But how does it happen that this transformation triad gets in motion? Because it is indispensably connected with the sign work triad M/O/P (wherein M is *signans* plus *signatum*, O the *operations* of the sign worker, and P the *product*, i.e. *signum*). An important part of Rossi-Landi’s sign theory is his *Theory of Sign Residues*, which deals with the elements which enter or leave the signs on the side of *signans* as well as *signatum*. In his later works, he concentrated on the theoretical embedding of the sign systems and processes in *social reproduction*, delivering finally a threefold model of society driven by three great triadic movements: material production; intermediary production, first of all sign production; and ideological production. The central locus or agent keeping the entire system together is the one of *sign exchange = communication*. It is interesting to see that the summarized movement of all triads mentioned, that is, the triad of social reproduction in general (social practice; social reproduction in its instrumental/operational aspects; history) still mirrors, though on a grander scale, the triad M/O/P, a fact which hints at the astonishing consistency of Rossi-Landi’s thought throughout the decades.

Biological reproduction (animal as well as human) is of course also included in his system, i.e. mainly on the side of the materials worked at and instruments used (resources, equipment), but it would be exactly the point of discussion with biosemiotic researchers to deepen these views, since these questions were not in the center of Rossi-Landi’s sociosemiotic interests. A way of reconciliation between biosemiotics and socio-semiotics is however tentatively suggested by means of comparison: what is common to human and animal umwelts, and what distinguishes them? The human umwelt is to an ever increasing extent one produced by (Wo)Man him/herself (but finally, Nature uses to strike back). By this, one should, in the end, arrive at the questions concerning the differences as well as possible concidences of the two types of "evolution", including the role of phylogenic memory.