

THE IMPACT OF ZOOSEMIOTICS IN THE SCIENTIFIC WORLD

Dario Martinelli

Thomas Sebeok's introduction of zoosemiotics within the scientific world was obviously very far from being the first attempt to study non-human signalling behaviour. Yet, Sebeok opened a door that scholars were a bit hesitant to tackle. When we compare pre- or non-semiotic definitions of animal communication, such as those of Frings and Frings ("Communication between animals involves the giving off by one individual of some chemical or physical, that, on being received by another, influences its behaviour"), Cullen ("Animal communication evokes a change of behaviour in another individual"), or Dawkins and Krebs ("Communication occurs when an animal, the actor, does something which appears to be the result of selection to influence the sense organs of another animal, the reactor, so that the actor's behaviour changes to the advantage of the actor"), with those provided by Sebeok ("the discipline within which the science of signs intersects with ethology, devoted to the scientific study of signalling behaviour in and across animal species. The basic assumption of zoosemiotics is that, in the last analysis, all animals are social beings, each species with a characteristic set of communication problems to solve") and other semioticians¹, we understand how, thanks to the semiotic approach, animal information exchange could finally get rid of the rigid stimulus-reaction scheme and achieve the significant status of "communication", in the whole complex and flexible sense of the term.

Unfortunately, the importance of zoosemiotics as a discipline, or even as a simple idea, did not walk hand in hand with its success, within the category of semioticians and other scholars. Honestly, we cannot really say that the scientific environment is invaded by zoosemioticians that are glad to be recognised as such. On the one hand, forty years are still very few to entitle anyone to such statements, neither should we forget that semioticians continue to complain that institutions are still refractory to officially 'accept' semiotics (the whole of it). However, a few considerations are worth to be mentioned here:

1) In terms of intensity, the spreading of zoosemiotics is not really encouraging, especially if we compare it to equally (or even more) recent fields within semiotic research, such as musical semiotics or biosemiotics. The publication of an explicitly zoosemiotic text is by far a rarer event than that of a musical semiotic or biosemiotic one.

2) As compared to other branches of semiotic research, zoosemiotics can hardly be considered a specialisation in its own. In other words, it is not very difficult to encounter comments or topics of zoosemiotic concern, but it is rare to encounter self-styled zoosemioticians: rather, they might either belong to different disciplines dealing with the same issues (quite often the case of ethology, as the case of Marc Bekoff illustrates), or deal with zoosemiotic issues only in exceptional cases, their specialisation (and academic identity) being of quite a different type (it is the case of John Deely or Susan Petrilli). This is another reason why

¹ See, for instance, Wilfried Nöth (1990: 147): "zoösemiotics, the study of the semiotic behaviour of animals, is a transdisciplinary field of research. Situated between biology and anthropology, it investigates a domain located between nature and culture", or Giuseppe Malacarne (in Mainardi 1992: 817-818): "Zoösemiotics deals with the rules of animal communication by using the theory of information (e.g. mathematic analysis of signals) and the theory of communication. Situated between traditional ethology and sociobiology, it deals with topics of particular interest: 1) the nature of communicative channels (visual, tactile, electric...) in relation with the environment; 2) the meaning of a message in relation with the context in which it is emitted; 3) the ability of social species to construct symbolic languages. The latter shows similarity between zoösemiotics and cognitive ethology"

3) Zoosemiotics has not yet achieved a scientific autonomy. If a musical or media semiotician is rarely confused with a musicologist or a mass-mediologist, zoosemioticians often seem to be on the threshold of identity crises (Ethologist? Biologist? Zoologist?), the contrary of course never occurring (never heard of a Von Frisch being called zoosemiotician as a result of his studies on bees).

An interesting support to such considerations can be provided by internet research, through the use of the so-called search engines. I tried to type some key-words on three of the main search engines (Google, Altavista and Yahoo), in order to check the amount of matches that can be found. The key-words were the following: “zoosemiotics”, “zoösemiötics” (variation proposed by John Deely, in order to ‘force’ the reader to pronounce the prefix “zoo-“ in the same fashion as “zoology” rather than “zoo”²), “zoosemiotician”, “zoosemiotica” (translation of the term in Spanish and Italian), and “zoosemiotique (French translation). Results are reported in **table 1**.

	<i>www.google.com</i>	<i>www.altavista.com</i>	<i>www.yahoo.com</i>
Zoosemiotics	597	342	508
Zoösemiötics	19	13	13
Zoosemiotic	67	45	57
Zoosemiotician	5	8	10
Zoosemiotica	221	137	154
Zoosemiotique	8	23	27

Table 1: Matches found in three Internet search engines for zoosemiotics-related key-words (retrieved June 27, 2004)

In order to handle some comparative material, I searched for the terms “semiotics”, “ethology”, “biosemiotics” and “philosophy”, plus the relative adjective forms (“semiotic”, “ethological”, “biosemiotic” and “philosophical”) and nouns indicating the profession (“semiotician”, “ethologist”, biosemiotician”, “philosopher”) on the Google search engine (which is normally considered the most authoritative as far as scientific-academic purposes are concerned). The reasons for the terminological choices are, I guess, quite clear: semiotics is the mother-discipline of zoosemiotics, biosemiotics is a sister-specialisation, ethology is a discipline zoosemiotics is often referred to, and philosophy³ is finally a possible instance of a very widely known discipline, in comparison to which one can figure out the notoriety of zoosemiotics in the relative sense. Results are shown in **Table 2**.

	<i>Discipline</i>	<i>Adjective</i>	<i>Profession</i>
Semiotics	289,000	161,000	5,440
Ethology	175,000	25,700	7,970
Biosemiotics	3,130	505	19
Philosophy	17,400,000	3,210,000	1,840,000

Table 2: Comparative key-words, as found on the Google search engine (retrieved June 27, 2004)

These data call for a few reflections. First of all, it appears that zoosemiotics is quite definitely the least known among the mentioned disciplines. The sole biosemiotics is almost eight times more recurrent in websites. Secondly, although appearing as the result of a general trend, the adjective form “zoosemiotic” is very rarely found. But even more impressive is the recurrency of the term

² To say it in his own words, zoosemiotics – with the umlaut – distinguishes the study of free animals from the study of captive ones.

³ Although I reckon that this last choice can be a bit misleading, the term “philosophy” often being used in metaphorical sense (e.g., “my philosophy is ‘live and let live’”)

“zoosemiotician”. Google found only eight matches, three of which refer to myself, one to Sebeok, and one to Cimatti (this latter within the context of an article I wrote). In other words, the label “zoosemiotician”, as applied to anyone, is a really exceptional event. I consider this the most striking datum⁴. Thirdly, if Spanish and Italian translations reach a peak of 122 matches (in the Altavista search engine, which is more oriented to non-Anglo-Saxon targets), it is rather significant that the term is extremely rare within French-speaking academic contexts. Indeed, if on the one hand it is probably true that French scholars tend to use the Internet tool less systematically than Americans or Scandinavians, on the other hand one cannot avoid mentioning that the French semiotic tradition has always regarded with scepticism the possibility of extending semiotic research beyond the anthropological domain. In order to escape any doubt, I also typed the term “zoosemiologie” (French scholars notoriously prefer the term “semiologie” to “semiotique”), but the result was “zero” in all three engines, a sign that not only zoosemiotics is little acknowledged in French academic environments, but also – in the cases where it is – it is clearly classified as ‘foreign’ discipline.

Further considerations need to be done about the contents of the websites found, also because they unveil two major limits of this Internet-based survey:

- 1) It is mostly the last and the second last generations of scholars that make use of the Internet. A zoosemiotics-related research on the Internet only provides information on the last ten years of zoosemiotics, not on its entire existence. No wonder that Sebeok, who should be a massive presence, occupies a marginal position within the Internet world⁵;
- 2) Countries that are more confident with Internet devices are obviously a more prominent presence. Scandinavian (fully including Estonia) and Anglo-Saxon countries are definitely more represented than New-Latin, Asian or African ones. Beyond myself (mostly appearing as a result of my own intentions, being for instance editor of the www.zoosemiotics.helsinki.fi website), easily recurring are Timo Maran (University of Tartu, Estonia), Aleksei Turovski (University of Tallin, Estonia), Henna Törmänen (high-school teacher in Kuusamo, Finland), Jim Nollman (from the States, and strict collaborator of Finnish researchers) and Jack P. Hailman (University of Wisconsin-Madison, USA).

The 436 matches for “zoosemiotics” are made even less consistent by the sites in which the term is used in generic, indirect or even metaphoric fashion (instances that, for the purposes of this research, we shall call “interference”). The term indeed also appears in the following contexts:

- 1) Articles or essays concerning ecosemiotics and/or biosemiotics. Here, zoosemiotics is (correctly) quoted as part of the above-mentioned disciplines, but there is no specific treatment of the matter;
- 2) Articles or essays concerning Sebeok. Here, zoosemiotics is referred to as a main specialisation/innovation of the American semiotician, but – once again – the term is just mentioned within a list;
- 3) Occasional messages posted in discussion groups. Here, the term is just marginally mentioned for the purposes of totally different contexts;
- 4) Sites that – scientifically speaking – have nothing to do with zoosemiotics, but rather employ the term as an effective metaphor (in particular, I could find a so-called “multimedia installation” named exactly “zoosemiotics”, and a photographic exhibition of animal tracks).

REFERENCES:

- Mainardi, Danilo (1992). *Dizionario di etologia*. Torino: Einaudi.
Nöth, Winfried (1990). *Handbook of Semiotics*. Bloomington, Indianapolis: Indiana Univ. Press

⁴ Biosemiotics seems to experience an analogous – and proportionally even bigger – problem.

⁵ Most of the times, Sebeok only appears as a bibliographical reference of authors who made use of texts like *Perspectives in zoosemiotics* or *Talking with animals: zoosemiotics explained*.