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Zoosemiotics as a new perspective

*If a lion could talk, we could not understand him.*¹

Ludwig Wittgenstein

Introduction

This concise as well as a very famous statement made by Ludwig Wittgenstein in 1958 towards the end of his *Philosophical Investigations*, has given rise to multiplicity of debates and provoked detailed studies on animals, language and subjectivity. Supplemented elsewhere with another Wittgenstein's contention: "to imagine a language is to imagine a form of life"², it fails to become completely clear. However, both quotations make us aware of the role played by our perception of the world and its importance in the process of communication. One has a great opportunity to learn about it when going abroad to a country with completely different traditions from his own – even if he speaks given country's language fluently – he is unable to understand people.

Needless to say that the situation with animals would seem to be the same. They do have a totally different perception of the world, different background rendering them completely different from us in that aspect. Vicki Hearne, a poet, a well-known dog and horse trainer and a student of Wittgenstein's works writes in her *Animal Happiness* (according to the foregoing excerpts): "The lovely thing about Wittgenstein's lion is that Wittgenstein does not leap to say that his lion is languageless, only that he is not talking."³ "The reticence of this lion", she continues, "is not the reticence of absence, absence of consciousness, say, or knowledge, but rather of tremendous presence", of "all consciousness that is beyond ours". As such, speaking language is not an issue in the lion's world – albeit we are still able to communicate – even if we refuse to use the language. Therefore, we should cease to project our language constructions towards the other world and withdraw our specific "human

¹ Ludwig Wittgenstein, *Philosophical Investigations*, Oxford University Press, Oxford

² Ibidem.

³ Cary Wolfe, *Animal rights*, p. 45.

expectations” and as a result enjoy much more our contact with animal others. Owing to Estonian born German biologist Jakob von Uexküll (1864-1944) and his theory of meaning considering animals as interpreters, every living organism has its *Umwelt*, its subjectively interpreted environment, its phenomenal world. As he wrote in *The Theory of Meaning* dated 1940 (reviewed in 1982): ”Every action that consists of perception and operation imprints its meaning on the meaningless object and thereby makes it into a subject-related meaning-carrier in the respective *umwelt*”⁴. No wonder his work has become inspiration for e.g. Konrad Lorenz, Thomas A. Sebeok, Wilfried Noth, etc. and the growth of the new disciplines such as ethology, biosemiotics, ecosemiotics and zoosemiotics.

The aim of this paper is to gain a brief insight into possibilities of holding intercourse with animal others, mainly considering the issue of zoosemiotics as “the study of the semiotic behaviour of animals, transdisciplinary field of research. Situated between biology and anthropology, it investigates a domain located between nature and culture”⁵ and eventually stating a question of zoomusicology as a field of the latter examining musical aspects of sound or communication produced and received by animals.

Basic distinctions

First and foremost we draw a distinction between disciplines closely connected with each other, i.e. biosemiotics, ecosemiotics and of course, zoosemiotics.

Biosemiotics may be defined as the interdisciplinary study of communication and signification in living systems. As such, it is concerned with all processes going on in animate nature at whatever level, from the single cell to the ecosystem, should be analysed and conceptualised in terms of their character of being sign-processes.⁶ Moreover, it is not one of the biological sub-disciplines but rather it constitutes the theoretical framework for biosciences. In terms of nature’s sign universe, biosemiotics interprets it according to Charles Sanders Peirce’s semiotic tradition, considering a sign as a triadic unity of the sign vehicle, the interpretant and the object. In the biosemiotic perspective, the life sphere is pervaded by *semiosis* (sign processes) and signification. Therefore, anything an organism senses also has some meaning to it (e.g. food, danger) – thus every organism is born into the world of meaning and communication: into *semiosphere*, which constitutes boundary conditions of the *Umwelts* of particular populations as they are to occupy specific

⁴ Jesper Hoffmeyer, *The Semiotic Body-Mind*, [in:] *Cruzeiro Semiótico*, No 22/25, Norma Tasca (ed.) Special Issue in Honour of Professor Thomas A. Sebeok, pp. 367-383. Also available on website: <http://www.molbio.ku.dk/MolBioPages/abk/PersonalPages/Jesper/Semiotic.html>

⁵ Wilfried Noth, *Handbook of semiotics*, Bloomington, Indianapolis: Indian University Press (1990), p. 147.

⁶ Jesper Hoffmeyer, *Biosemiotics*, In: *Encyclopedia of Semiotics*. P.Bouissac (ed.), New York: Oxford University Press, pp. 82-85.

semiotic niches. More to the point, there is an important distinction within biosemiotics between *endosemiotics*, dealing with sign processes in the interior of organisms and *exosemiotics* concerning sign processes between organisms. The one whose work is conceived as the very beginning of biosemiotics is cited above Jakob von Uexküll⁷. Among the pioneers of biosemiotics we should mention also an American linguist and semiotician, Thomas A. Sebeok (1920-2001), acknowledged by his works in zoosemiotics, Gregory Bateson (1900-1980), who concentrated on the issue of communication between animals, people and machines, and Thure von Uexküll (b. 1908) who developed his father's theory and used it for the research in psychosomatic medicine. The term "biosemiotics" has functioned in Russian semiotic literature since 1971 owing to Yuri Stepanov, introduced to international literature in 1986 by T.A. Sebeok, albeit its first use was by E.S. Rothschild in 1962.

Passing on to ecosemiotics, it is widely acknowledged that ecology as a branch of biology, has had an enormous transdisciplinary impact on the wide range of scientific (and not only) fields and resulted in e.g. an ecology of the mind (G. Bateson), ecological literary studies (K. Kroeber), ecological ethology (J. Krebs & N. Davies) or an ecological aesthetics (H. Sturm, H. Schönherr, G. Böhme, M. Krampen)⁸, etc. Among the latter the concept of ecosemiotics emerged as the study of semiotic interrelations between organisms and their environment. It concentrates on *organismus semioticus*, not *homo semioticus*, considering neither arbitrary nor artificial, but natural mediating signs. Furthermore, ecosemiotics attends to pose a question whether it is significant to distinguish between semiotic and nonsemiotic environmental relationships. Thus it would seem to be an approach to semiosis based on a very low "semiotic threshold" between signs and nonsigns. That is the way Winfried Nöth defined the term of ecosemiotics. Yet more recent definitions conceive ecosemiotics rather as a part of semiotics of culture examining human relationships to nature endowed with sign-mediated basis. Therefore, it differs substantially from the biosemiotics which refuses to have any relation with cultural semiotic field.⁹

⁷ Jesper Hoffmeyer, *The Semiotic Body-Mind*, in: *Cruzeiro Semiótico*, No 22/25, Norma Tasca (ed.) Special Issue in Honour of Professor Thomas A. Sebeok, pp. 367-383. Also available on website: <http://www.molbio.ku.dk/MolBioPages/abk/PersonalPages/Jesper/Semiosic.html>

⁸ Winfried Nöth, *Ecosemiotics*, in: *Sign Systems Studies* 26, 1998, pp. 332-343. Also available on website: www.ut.ee/BOSE/noeth.htm

⁹ Kalevi Kull, *Semiotic ecology: different natures in the semiosphere*, in: *Sign Systems Studies* 26, 1998, pp. 350-351. Also available on website: www.zbi.ee/~kalevi/ecosem.htm

Zoosemiotics as an interdisciplinary study

Having drawn basic distinctions between the latest sub-disciplines of semiotics, we may proceed to the issue of zoosemiotics introduced to scientific world by the above-mentioned American linguist, semiotician and of course zoosemiotician, Thomas A. Sebeok, who defined it in his work *Perspectives in zoosemiotics* (1973) as “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.”¹⁰ Apart from the definition by Winfried Nöth quoted at the very beginning of this paper, we may refer to the one stated by Giuseppe Malacarne (in: Danilo Mainardi, *Dizionario di etologia*, Torino: Einaudi, 1992)¹¹: “zoosemiotics 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 zoosemiotics and cognitive ethology.” In fact zoosemiotics fails to be conceived as a discipline with scientific autonomy and full-rights status, especially when compared with other kinds of studies within semiotics, such as biosemiotics or musical semiotics. However, zoosemiotic research has been conducted by scholars belonging to a variety of disciplines, for instance: Heini Hediger, famous zoologist and animal psychologist, or Marc Bekoff, ethologist.

This brings us to the point of another distinction – according to Dario Martinelli – between: ethological zoosemiotics, divided into traditional current, represented by early Sebeok, Lindauer, Lorenzian or behaviouristic traditions and the cognitive one (latest Sebeok, Cimatti and Bekoff); and anthropological zoosemiotics considering semiotic interaction between human beings and other animals, including both cultural and/or sociological genre. Yet we appear to concentrate on the latter, consisting of two sub-categories as well: communicational one referring to human – non-human animal interaction of a communicative type, i.e. intentional, reciprocal and interactive; and significational type. According to Honorata Korpikiewicz¹², what is important is to conduct the research on the issue of understanding and correct interpretation of cause and effect by non-human

¹⁰ Dario Martinelli, *Sebeok 2.0*, on website: <http://www.zoosemiotics.helsinki.fi/intro.pdf>

¹¹ Ibidem.

¹² Honorata Korpikiewicz, *Porozumienie ze zwierzęciem*, in: Honorata Korpikiewicz (red.), *Człowiek, zwierzę, cywilizacja*, Prodruck, Poznań 2001, pp. 35-53.

animals, as well as the way they perceive the cause of phenomena. Still, she emphasizes the ethical and methodological aspect of such observations, which should be made outside the laboratories, in the natural environment.

However, anthropological zoosemiotics of communicational type substantially concentrates on interspecific communication experiments but including simultaneously e.g. human – pets or human – cattle interaction. In accordance with such kinds of experiments, let us mention great apes projects, for instance Gorilla Language Project with its main actor: female gorilla named Koko who has a working vocabulary of over 1000 signs of American Sign Language and understands approximately 2,000 words of spoken English¹³. Apart from the scientific aspect Koko.org is also a foundation raising money for better, i.e. humane treatment of captive animals and increased conservation efforts for those that are free-living. Although the experiment entails some ethical doubts (whether we have the right to make Koko – or any other animal - “more human” than she is), it has helped to change some people’s stereotyped attitude towards animals, their possession of feelings, thought processes, imagination and , moreover, to give awareness of the necessity of the prevention of cruelty to animals as well as conservation and preservation of endangered species.

Passing on to the second branch of anthropological zoosemiotics (significational), one is able to see the difference: here non-human animal itself is a pure source of meaning. Therefore, it has become the object rather than a subject of signification, frequently in myths, tales, as allegories but also in classifications e.g. taxonomy. If we understand ecosemiotics as the study of human representation of nature, we can thus treat this model as an ecosemiotic one. Indeed, we appear to observe another distinction: whereas ethological zoosemiotics has a close relationship with natural sciences, the anthropological is broadly connected with social sciences, also anthrozoology. In consequence, we can see that zoosemiotics is an interdisciplinary study occupying intermediary position between natural and human sciences.

For the purpose of this paper it seems necessary to make a brief reflection on the concept of animal, broadly discussed in the significational area of anthropological zoosemiotics. Still, devoid of any reference to the definitions¹⁴ of “animal” stated in dictionaries. What appears to be significant all scientifically-acknowledged taxonomic classifications place “human being” within animal kingdom, yet it should not surprise anyone. As Thomas Seboek stated, “the animal easily becomes a cultural object, a kind of information that – as a result of given system of socio-cultural values – determines a gap, if not a straight reconfiguration,

¹³ On website: www.koko.org

¹⁴ However, in each of them, the Latin origin is mentioned: “animale” standing for “living, provided with soul”

between signifier and signified.”¹⁵ We can thus deduce that every synonym of “animal” (such as e.g. “beast”) has its full meaning and significance. In that way Dario Martinelli pointed out eight connotations of the word “animal” within western culture. So we can observe animal as “any other animal except humans”, as referred to exclusively human characteristics (human as a “political animal”), to a particularly uncivilised human being, to aggressive and/ or violent attitudes (“cruel beast”), natural and/ or instinctive attitudes, to remarkable physical (mostly sexual) performances, to the ability of human being to adapt to a certain context (“stage animal”) or a zoomorphic non-existent creature (e.g. unicorn). Each case is provided with ethical nuance – it seems easy to conclude that (mostly in first four descriptions) cultural distances between human being and non-human animals with associated with them conventionally negative and unacceptable behaviour. Surprisingly “animal” may be a general word within each community (within one culture) but it becomes a particular one when considered cross-culturally. Furthermore, meaning of this word emerges from a textual and contextual interaction, e.g. mussels are something else for the zoologist and for the gourmet.

Apart from the concept of animal, another interesting issue is the one conceiving forms of human – animal other relationship. It was T. Sebeok who emphasized the importance of a general set of different kinds of motivation that push human beings to interact with other animals, i.e. adaptation (or even anthropisation), progress (scientific/ technological), work (non-human animals as a part of productive cycle), needs (eating, wearing animals), pleasure (exploiting animals in order to satisfy hedonistic wishes – includes: zoos, pets, cartoons, etc.), tradition and culture (religion, myth, etc.) and daily life as a super-category including all other points from the list above. Dario Martinelli in his essay on forms of human-animal relationship broadened the range of possible categories.¹⁶

The question of zoomusicology

Nevertheless we are to proceed now to the issue of a fairly new concept – zoomusicology, the term which for the first time appeared in Francois Bernard Mâche’s essay *Music, Myth, Nature* in 1992. Thus one can see that such research is not well defined yet, has very few scientific precedents and how little has been said about its subject until now. Dario Martinelli, Guest Professor at the Finnish Network University of Semiotics, conducting studies in the zoomusicology, tries to define it as a discipline considering “the aesthetic use of sound communication

¹⁵ Thomas Sebeok, *Come comunicanogli animali che non parlano*, ed. By Susan Petrilli, Edizioni del Sud, Bari 1998, p. 67; quotation available on website: <http://www.zoosemiotics.helsinki.fi/animal.pdf>

¹⁶ On website: <http://www.zoosemiotics.helsinki.fi/animal.pdf>

among animals”¹⁷. He uses “sound communication” instead of “music”, reserving the latter to just human music and “aesthetic” according to recent tendencies to acknowledge the existence of an aesthetic sense in animals. The concept of “aesthetics” constitutes as well the fundamental presupposition for defining music as such. Moreover, Martinelli perceives music as a semantic and syntactic system. If we pose a question about the purpose of such discipline as zoomusicology, F. B. Mâche provides an answer: “if it turns out that music is a wide spread phenomenon in several living species apart from man, this will very much call into question the definition of music, and more widely that of man and his culture, as well as the idea we have of the animal itself.”¹⁸ Scientists reveal quite frequently some new discoveries conceiving e.g. common routes of human music and loud calls of modern apes.¹⁹

Conclusion

It is hard to escape the obvious conclusion that none of examined above disciplines has its full rights status, being defined, provided with its own methodology and considered as an autonomous field of research. Nevertheless, e.g. biosemiotics is conceived as a actual discipline substantially more than zoomusicology. The latter approaches non-human animals from the direction of human sciences, and music – on the contrary – from the direction of natural sciences. That is likely to implicate the changes of perspective and revision of the whole conception of the nature–culture dichotomy, also according to Ch. S. Peirce. Zoomusicology suggests as well that music is not exclusively a human phenomenon, but rather an emotion and instinct-based one, as Dario Martinelli writes. Moreover, he places anthropomusicology within the area of zoomusicology, not in the opposition. Even if we have some reservations towards these new disciplines considering mainly the issue of communication and meaning, especially the latter which is hard to call (an autonomous) discipline, it is difficult to resist the conclusion that new fields of studies encourage progress of human knowledge in studying other animals, the attitude towards them. Considered branches of semiotics change as well as the attitude towards the communication within the natural environment. To conclude, each of conceived disciplines has indeed its positive impact on broadening our perspective.

¹⁷ On website: <http://www.zoosemiotics.helsinki.fi/zm/welcome.htm>

¹⁸ Francois Bernard Mâche, *Music, Myth and Nature or The Dolphins of Arion*, Harwood Academic Publishers, Chur 1992, p. 95; quotation available on website: <http://www.zoosemiotics.helsinki.fi/zm/welcome.htm>

¹⁹ On website: http://www.zoosemiotics.helsinki.fi/zm/music_and_primates.htm