

Kalevi Kull

BIOSEMIOTIC CONVERSATIONS:
PONZIO, BAKHTIN, KANAEV, DRIESCH, UEXKÜLL, LOTMAN*

1. *Praeludium (Ponzio, Bakhtin)*

Conversation is a prerequisite of science. In an Imatra semiotics summer seminar, we started one with Augusto Ponzio. A year or so later, in a conference organized by the Italian semiotics society in Siena in 1997, where I gave a talk about Jakob von Uexküll (in English, with simultaneous translation into Italian by Susan Petrilli), Thomas Sebeok arranged dinner for the four of us (Ponzio, Petrilli, Sebeok, Kull) during which we talked about the possibilities of developing a Tartu-Bari thread in the web of semioticians.

A little earlier, I had come across Ivanov Kanaev's article "Contemporary vitalism" republished in "Bakhtin pod maskoj" (Kanaev 1996), which was also among our topics of conversation in Italy.

Again in Tartu, I received a letter from Augusto Ponzio.

From: "Prof. Augusto Ponzio" <ponzio@mlx.pandora.it>
Subject: Our dialogue on Bakhtin and Biosemiotics

20/1/1998

Dear Kalevi,

I'm writing firstly to send you my best wishes for the new year and secondly to continue our discussion begun in Siena.

The starting point of our dialogue is Bakhtin's text signed by Kanaev, in which he criticises vitalism. It is 1926 and Bakhtin moved from specific philosophical interests to an interest for literature, verbal language and signs. His writings from this period testify to this transition, including his critique of Freudianism and mechanistic behaviorism, being questions that he dealt with remembering also Vygotsky (in particular his paper of 1925 on consciousness as behavior).

Bakhtin's discussion of both vitalism and behaviorism is developed in the direction of philosophy of language and semiotics with a capacity for avoiding incongruencies in each position.

From this point of view this aspect of Bakhtin's research can be associated to Jakob von Uexküll's. The latter is named in Bakhtin-Kanaev's text as one of the representatives of vitalism. In reality, Uexküll did not undersign vitalism unconditionally, just as he remained constantly critical of conceptions of the behavioristic and mechanistic type. As he stated in his book of 1934 he was not interested in how the organism-machine works but how the driver works. And Uexküll also found an explanation to life in the sign.

Therefore, we could state that both Uexküll and Bakhtin face the question of life from a semiotic perspective. Even though Bakhtin concerned himself more and more with problems connected to the literary sign (and yet ... as testified by his book on Rabelais and his interest for the carnivalesque in the second edition of his Dostoevsky), all the same he can be placed with Uexküll on the same line of development that lead into contemporary biosemiotics.

* I thank Augusto Ponzio and Susan Petrilli for friendship, and Peeter Torop for his help in understanding Bakhtin.

These are the main themes that we could develop together. I hope these considerations may serve as suggestions for your own reflections and considerations. In this way our dialogue can proceed and take the form of a co-authored article for the journal *Semiotica*.

Trusting in the success of our collaboration, I send you my affectionate regards, thanking you, and greetings also from Susan,

Sincerely,
Augusto

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Indeed, in order to further develop the semiotic basis of biology, it would be helpful to have a review on the topic “Bakhtin and biology”, as an addition to the series of already existing reviews on the biological views of classical authors of semiotics¹. I hope, Augusto Ponzio as an eminent scholar of Mikhail Bakhtin will write this paper.

After reading Kanaev’s article, my first impression was that Bakhtin could not be its author, because the biological knowledge in it was far too good. After meeting Craig Brandist, a scholar from the Bakhtin Centre in England, at a conference organized by Patrick Seriot in Switzerland in 2002², my hesitation even increased – Brandist expressed serious doubts concerning Bakhtinian authorship of the vitalism paper. However, I am not so sure about this any more.

In the literature of recent decades on Kanaev’s article, my impression is that in most cases, rather than deal with its content, the tendency is to deal with the problem of its authorship instead. Although, there are exceptions (Mahlin 1996; Ponzio 2002, 2003; Taylor 2004).

2. *The problem of vitalism (Kanaev, Driesch)*

Neovitalism as an approach in biology was inaugurated by a Tartu University scholar Gustav von Bunge (1844-1920) with his article of 1887, and was developed extensively by German biologist and philosopher Hans Driesch (1867-1941), a major representative of

¹ This series of studies that we planned with Thomas Sebeok already includes several publications on classics in semiotics and their relationship to biology, *exempli gratia*, on R. Jakobson (Shintani 1999), J. Lotman (Kull 1999a), Ch. Morris (Petrilli 1999b), Ch. S. Peirce (Santaella 1999), T. A. Sebeok (Kull 2003), V. Welby (Petrilli 1999a); as well as publications on biologists and others who have made a remarkable impact on biosemiotics, such as on G. Bateson (Brauckmann 2000; etc.), H. Hediger (Turovski 2000; Sebeok 2001b), G. E. Hutchinson (Anderson 2000), G. Prodi (Cimatti 2000), F. S. Rothschild (Kull 1999b), J. v. Uexküll (Kull 2001), T. v. Uexküll (Kull, Hoffmeyer 2005).

² In Crêt-Bérard, on the topic “Les fondements philosophiques, épistémologiques et idéologiques du discours sur la langue en Union Soviétique, 1917–1950”.

neovitalism, over a few decades (Driesch 1919; 1921). Neovitalism meant to recover certain aspects of the vitalistic tradition that had deep roots in biology, starting from Aristotle (who used the term *entelechy* for vital forces). Throughout the history of biology, the vitalistic tradition has had certain closeness to teleological and holistic tradition in biology (a well-known representative of the latter being, for instance, Karl Ernst von Baer).

Biosemiotics has distanced itself from the vitalist views. However, the relationships here are not so simple.

In the first chapters of his recent book, Jesper Hoffmeyer (2005) devotes many words discussing vitalism and describing the work of H. Driesch. He says: “the relationship between vitalism and biosemiotics is not based upon theoretical agreement but upon some common conception of what are the central unsolved problems in biology”. And further: “The understanding of *entelechy* as a controlling authority foreshadows a thermodynamically inspired model for the physics of form generation” (Hoffmeyer 2005, trans. by the author, J. H.).

In 1930s, together with an epistemic change from a century-long epigenetic period to a preformist period (these two have been the alternating principal paradigms throughout the history of biology), the holistic attempts to build general biology were replaced by reductionist approaches, and neovitalism was buried.

In Russia, H. Driesch was translated quite early (Driesch 1915)³. Among the non-darwinian evolutionists (a trend particularly well-developed in Russia⁴), his work was also discussed in 1960s and 1970s. A remarkable essay on the topic that describes the ideological and ethical aspects of scientific debates on theoretical biology in relation to H. Driesch, is authored by Sergei Meyen (1977).

It should also be mentioned that the decades between 1890s and 1920s have been most diverse and rich in theoretical biology, in the sense of simultaneous existence of several theoretical approaches without any strongly dominating theory. This situation changed with so-called modern synthesis that turned neo-darwinism into the mainstream biological theory until the end of the 20th century.

³ H. Driesch has also visited Russia in 1901, where he was met by Alexander von Bunge (brother of Gustav von Bunge) in St. Petersburg (Driesch 1951: 120).

⁴ I do not mean here the officially supported views of T. D. Lysenko and his circles in Soviet Union. Instead, I want to emphasise the role and value of nomogenetic tradition of Lev Berg and A. A. Lyubischev (going back to K. E. v. Baer’s teleological biology, and I. Kant’s theory of biology as expressed in his *Critique of teleological Judgment*). As an interesting fact in the context of the history of ideas – Roman Jakobson, during his Prague period of the formation of views on linguistic structuralism, was applying the ideas from the works of Karl Ernst von Baer and Lev Berg (Seriot 2001).

Mikhail Bakhtin (1895-1975) lived in Ivan Kanaev's (1893-1983) apartment in Leningrad for a few years, and in one way or other, the article "Contemporary vitalism" was written. Published first in 1926, it was later (since 1990s) repeatedly republished (Kanaev 1996; etc.) and translated (in English, Bakhtin 1992; in Italian, Kanaev 2002).

An aim of Kanaev's work was a critical analysis of H. Driesch's methodology. Kanaev (with/or Bakhtin) was interested in its methodological scheme.

Kanaev finds that one of Driesch's basic assumptions is the conception of prospective potencies. Each cell, each part of an organism has several prospective potencies, several possible ways of development, writes Driesch. Kanaev, however, pays attention to the fact that for every set of conditions, there exists only one possibility of development, "the one that cannot not to turn into reality" (Kanaev 1996: 121). In the case of objectivity, there can be only one possibility, according to Kanaev. As an illustration of an alternative to Driesch's view, he indicates the approach adopted by J. Loeb (Kanaev 1996: 122-123).

Kanaev's view corresponds well to the inter-organismal nature of the psychical. As another text from the Bakhtin circle reads, "One of Marxism's fundamental and most urgent tasks is to construct a genuinely objective psychology, which means a psychology based on *sociological*, not physiological or biological, principles" (Volosinov 1986 [1929]: 25). There is no intra-organismal sociology, hence no subjectivity of an animal – at least for the Bakhtin Circle during the 1920s.

As one of my professor's in evolutionism in Tartu (Henni Kallak) has claimed – the 'entelechy' of neovitalists is nothing else but an early attempt to introduce the concept of information in biology. This means that discourse by the neovitalists should be reinterpreted as a conversation about matters concerning the informational order of organic forms. There is no doubt that several key concepts in biocybernetics during the 1970s (self-organisation, self-regulation, equifinality, etc.) have been developed in works in teleological biology, including those by H. Driesch, many decades earlier.

Indeed, as Kanaev (1996 [1926]: 118n) has also mentioned, Driesch "proposes an explanation of the actions of entelechy, so-called theory of modelling"⁵.

The latter statement is also expressed by Driesch (1919: 58): "Entelechie setzt in da materielle Getriebe 'naturwirkliche Bedingungsgleichungen' und zwingt dadurch der Bewegung der Materie gleichsam ein Modell auf, nach welchen sie sich in grossen Zügen zu richten hat (meine neueste Theorie)".

⁵ "[...] predlagaet [...] ponimanie vozdejstvij entelehii, tak nazyvaemuyu teoriyu modelirovaniya" (Kanaev 1996 [1926]: 118n).

It is interesting that not even this version of entelechy was realistic or acceptable for Kanaev.

Remarkably, T. A. Sebeok's definition of Umwelt (a central notion introduced by J. v. Uexküll) has been 'an animal's model of the world'. A *model* in the form of representation may certainly regulate an organism's behaviour.

3. *Semiotic threshold, semiobiosphere (Uexküll, Lotman)*

Thus Kanaev's critique of Driesch is focused against the assumption of existence of subjectivity in the organisms that Driesch studied.

"Kanaev's biosemiotic essay" (Petrilli and Ponzio 2005: 23), therefore, is not really a biosemiotic one, because its emphasis is to deny the role of subjectivity and semiotic agency in the behaviour of cells, embryos, and non-vertebrate animal organisms.

The semiotic threshold that occurs between abiotic and living organization according to common view among contemporary biosemioticians, could not be acknowledged by Kanaev in the same way. Neither by Volosinov, I expect: "The subjective psyche is not something that can be reduced to processes occurring within the confines of the natural, animalian organism" (Volosinov 1986 [1929]: 25).

Hence, Kanaev's and Uexküll's views differ radically. Uexküll certainly and clearly assigned subjectivity to invertebrate animals. Jacques Loeb, praised by Kanaev, was strongly criticized by J. v. Uexküll (1982 [1940]).

However, again, the relationships are not that simple. Kanaev would agree with machinalism. Uexküll, too, claimed himself being a machinalist – neither mechanist, nor vitalist. As he said – organisms are machines and machinists at the same time.

In this context, it is interesting to mention also the differences between the views of Bakhtin and Lotman⁶. It is characteristic that while Russian formalism was an important source for Lotman, it was criticized by Bakhtin. Dialectic materialism that was the worldview for Bakhtin, did not play that emphasized role for Lotman. Which means they would have also differed in their view of Kanaev's critique of Driesch.

⁶ On the comparison between M. Bakhtin's and J. Lotman's views, see Agger 1999, Bethea 1997, Grzybek 1995, Mandelker 1994, 1995, Reid 1990, Shukman 1989, Torop 1999.

It so happened that similarity between Bakhtin's and Lotman's views grew in later years. Both turned at least a little closer to accepting the idea of semiotic activity in other organisms⁷. In the case of Tartu, A. Mandelker observes:

The evolution in semiotic theory during the 1980s might be compared to the shift from Newtonian to relativistic physics. Semiotics of the Moscow-Tartu school evolved from a theory rooted in Saussurean linguistics and in mathematical procedures to a biological, organismic approach. In a series of largely untranslated articles from the 1980s, Juri Lotman, the leading figure of the Moscow-Tartu school, proposes the model of the semiosphere, a metaphor based on principles of cell biology, organic chemistry, and brain science, to map cultural dynamics (Mandelker 1994: 385).

Indeed, it is remarkable that legalized biology in semiotics (Anderson *et al.* 1984) appeared in the same year as Lotman's article "On the semiosphere" (Lotman 2005 [1984]).

Already in the early 1970s Bakhtin wrote in his notebook: "When consciousness appeared in the world (in existence) and, perhaps, when biological life appeared (perhaps not only animals, but trees and grass also witness and judge), the world (existence) changed radically" (Bakhtin 2002: 137). Maybe just reflecting to something he has read...

Still, in his expression – "Just as the body is formed initially in the mother's womb (body), a person's consciousness awakens wrapped in another's consciousness" (Bakhtin 2002: 138) – one can recognize the principle *omne vivum e vivo*, or *omne signum ex signum*, which is a key for both endless semiosis, and for the semiosphere as discovered by Lotman reading Vernadsky (Kotov and Kull 2006).

However, there were still differences. Bakhtin's dialogue remained quite equivocal, whereas a basis for Lotman's model of communication was asymmetry. And neither of them put the semiotic threshold at the border of life.

These appear as dialogues. However, at a close look all conversations in their depth are essentially polylogic.

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⁷ On further details of J. Lotman's relationship to biology, see Kull 1999a.

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