

Paul Bains (2006). The Primacy of Semiosis: An Ontology of Relations. (Toronto Studies in Semiotics and Communication). Toronto, Buffalo, London: University of Toronto Press. 186 pp.; ISBN 10: 0-8020-9003-6, ISBN 13:978-0-8020-9003-4.

The conditions on the surface of a planet without living organisms are determined entirely by the sun's energy and the laws of physics and chemistry, as James Lovelock showed convincingly (Margulis, 1999). A planet with living organisms deviates considerably from this scheme. The gas composition and temperature will vary in a manner that cannot be predicted exclusively by the laws of physics and chemistry alone. Such a planet contains incompatible gas mixtures and temperatures whose relatively stable balance is actively controlled by organisms.

The interaction between organisms and matter is one in which organisms interpret and structure their abiotic environment according to biological principles. Parallel to this, the relationship to other organisms is a communicative one: their mutual behavior underlies changeable semiotic rules of sign use with which the biological individuals interact, i.e. coordinate and organize. The difference is that organisms cannot develop such a “to follow or not follow”-relationship with natural laws, but underlie them in the strict sense.

From a biosemiotic perspective, there is an unbridgeable gap between on the one hand chemical reactions (for example water molecules crystallizing to ice when exposed to a certain temperature below zero) and on the other hand cells of a living organism receiving chemical molecules *as signs* sent from another part of the organism to transport a vital message. Normally, message receiving, interpretation and appropriate response generation involve species-specific interactional rules. In contrast to the example of non-living matter (water – ice), the organismal semiotic processes may fail when (1) the message is generated incompletely, (2) the message is somehow damaged or deformed during transport, (3) the receiving entity is not appropriate, or (4) the interpretation by the receiver is incorrect. All of these may lead to a response behavior incoherent with the intent of the message.

In the last two decades the vocabulary in biology to describe all major and minor arrangements and rearrangements of genetic and genomic content has clearly turned to the use of linguistic and semiotic terms, e.g. “molecular syntax” (Witzany, 1995), or “protein linguistics” (Gimona, 2006). In addition, the description of interactions between cells and organisms has turned to the use of terms of communication theory, e.g. cell-cell-communication, bacteria communication, plant communication (Baluska et al., 2006).

Biological disciplines that work exclusively with a terminology of physics, chemistry, mechanics, stochastics and formalizable mathematical sign systems have difficulties making their languages compatible with linguistic, semiotic and communicative vocabularies. Genetic and genomic contents, especially their changing processes during evolutionary events, involve the complementary role of combinatorial (syntactic), context-sensitive (pragmatic) and content-specific (semantic) rules. Such rules apply not only to the genetic storage medium of DNA but – as our increasing knowledge of epigenetics has shown – equally to the concrete interactional context of the DNA-bearing organism. Parallel to this, the descent, evolution and precision of signal-mediated coordination and cooperation in single-cell populations such as populations of bacteria or protists and in multicellular organisms like fungi, animals and plants, clearly demonstrate that communication functions only if the signaling exchange and interpretation is coherent to species-specific, shared rules. Therefore, biological disciplines begin to look to non-biological disciplines like linguistics (Searls, 2002), semiotics (Barbieri, 2006), biosemiotics (Kull, 2005), biohermeneutics (Markos, 2002), and action-theoretical communication theory (Witzany, 2000).

Not only in the case of biosemiotics this leads to an increasing interest in the foundations of sciences which focus on sign-use, language and communication. The interest in a general theory of signs, i.e. semiotics, goes hand in hand with the lack of a unique theory or methodology that can provide the foundations of semiotics. Realism, idealism, ontology, mathematical language theory, systems and information theory, naturalism, semioticism, pragmatism, structuralism and constructivism are some of the many argumentative lines of (philosophical) foundations, which compete in several semiotic subdisciplines such as in socio-, cultural- or bio-semiotics.

Paul Bains undertakes an ambitious approach to work out an *ontological* foundation not only of semiotics but of philosophy in general. This means acknowledging sign processes (semioses) as real relations prior to any knowledge. On this view, semioses and the relations constructed by them are at the very foundations of being and are prior to cognition and philosophy. Recurring to the philosophies of Gilles Deleuze, John Deely, John Poinset and Humberto Maturana, Bains looks at relations as being 'external' to their terms. Bains historically reconstructs this line of thought, starting with the ontology of Aristotle, the essentialism of scholastics and then proceeding further to Duns Scotus, John Poinset, Charles Sanders Peirce, Gilles Deleuze, Felix Guattari, Gottfried Wilhelm Leibniz, Immanuel Kant, Humberto Maturana, Martin Heidegger, Jakob von Uexküll, John Deely, Alfred North Whitehead, Bruno Latour and Isabelle Stengers. Bains suggests that understanding the ontology of relations would allow us to develop a convincing representation of the action of signs. The central assumption is that relations *as* relations are univocal in their "*ad-esse*".* This univocity is prior to thinking and being, prior to the division of *ens rationis* and *ens reale*. Bains's aim is to achieve a solution for the medieval nominalist thesis, that it is possible in the example of the univocity of relations as relations to show their objective being.

Because external relations are the essence of being, prior to thinking and categorizing, they are also the precondition to our understanding and communication. We primarily recognize being in the world as relations and, secondarily, we can understand ourselves by understanding relations: "Univocal Being inheres in language and happens to things; it measures the internal relation of language with the external relation of Being" (p. 7). The externality of relations to their terms is essential also for Deleuze. The relations which we experience through language and communication are prior to any language and communication – external beings which are focused by language. As ontological fundamentals, relations are prior to language-derived constructions like idealism and realism.

This, so Bains, has its foundations in John Poinset and his reference to the ontology of Duns Scotus and St. Thomas Aquinas. The relations exist objectively ("*esse ad*") and are intellectually (re)constructed. In contrast to objective being, Poinset constructs a not immanently given but "suprasubjective" level of being. Not the theory is recognized as sign; rather, objective being is recognized as a pattern of univocal relations which are physical relations in parallel. Bains finds this univocal relationship realized in Jakob von Uexküll's *Umweltlehre* and his pure relationships of species-specific "*Umwelten*". These relationships do not describe the transition from a monadic subjective world to the outside world, but are prior to this "suprasubjective". Bains compares this with the radical constructivism of Maturana & Varela and their concept of autopoiesis, which could also generate univocal relations. But in the radical constructivism they propose, the subject of knowledge would hide itself in a (closed) world of cognition.

Bains finds the processuality of relations in Aristotle's substance-accident metaphysics and in the further developed processuality of Whitehead and Maturana & Varela. But

* Bains translates John Poinset's term "ad esse" as "being-toward". Bains suggests that relations – being external to their terms – primarily have a dynamic, i.e. processual, feature in the sense that they are objectively directed or under way in a certain direction.

Aristotle's relations become independent of their terms in Occam's nominalism (are the things in their terms or independent of them?). Bains strives for a "realistic realism", as is the goal of Bruno Latour. Semiotically, Bains seeks to reach the truth of relations in which we can speak about the reality of Being, which we recognize based on its stability – in contrast to the experience of an ongoing transformational world. As Bruno Latour (1990, 296) put it: "we speak truthfully because the world itself is articulated." Therefore, Bains is not convinced – coherent with Deely – of Kant's approach to mediate idealism and realism, noumenon and phaenomenon.

Objective being is (as Duns Scotus stated) a being independent of cognition and a subject of knowledge. One of the central questions is how to reflect upon the relation between subject and object, inside world and outside world. Bains is convinced that the semiotic reality is the real experience and cannot be reduced to a thinking mind which generates a construction a posteriori, because it is pre-categorical and univocal. The depiction of the material reality is univocal because the semiosis represents a relation as it is in objective reality. The real relations are signs by themselves and can be used to describe relations. This is a kind of self-referentiality. Only with relations and therefore with semioses can someone produce a univocity between signs and objective being.

In a modern turn, the question arises as to how neurobiological processes can be combined with cognition and language. Biological organisms are self-referential systems and constructed like "abstract machines". Cognition is therefore neither an acquisition of knowledge nor an epiphenomenon of neuronal activity of the brain, but rather an organisational activity of living systems: "Organization implies a particular set of relations. For example, in an autopoietic system, organization refers to the network of processes and relations that realize the system. The 'structure' of a living system is in constant transformation (whereas its organization or abstract machine remains invariant). In a non-living system (such as a toilet) the 'organization' consists in the assemblage of relations between an apparatus capable of detecting the water level and another apparatus capable of stopping the inflow of water." (p. 88) Maturana & Varela are more interested in the process of relation than in the process of representation of signs. This brings them close to speech act theory, because they place language in a social field of coordinating and consensual interactions. But they do not make the step from their objectivistic perspective to participating interactions: they adopt an observer perspective because they think this is the appropriate perspective to take for external observers of speech acts when trying to understand information. Because of this Bains had an opportunity to turn his perspective into that of a participating intersubjective one. Instead, he reduces social interacting into the social-political view of Nietzsche, Foucault and Deleuze: "languageing" and therefore sign-mediated interactions are in any case a priori power relations, deformed and non-reciprocal.

At this point it seems that we reach the most interesting part of the book. It would be a crucial step to transcend ontology towards a language-critical reflection on the conditions for making validity claims with respect to scientific, philosophical, etc. utterances. In the chapter "Autopoiesis and Languageing", for example, the connection of the concepts of Maturana & Varela and Deleuze & Guattari is brought in touch with formal conditions of speech act theory: to form sentences and to initiate communication (i.e. rule-governed sign-mediated interactions) are types of a priori and intersubjective social interactions. Deleuze & Guattari integrate speech act theory radically: language and communication are types of social interactions and not possible for *solus ipse* individuals. The non-discursive immanent relations between utterances and actions as found in illocutionary acts have three crucial consequences:

- It is impossible to imagine language as a code, because a code is the precondition of any explanation.

- It is impossible to define syntax, semantics and even phonetics independently of pragmatics.
- It is impossible to maintain the distinction between language and speech.

But Bains doesn't reflect on a (pragmatic) relation of this approach to his own utterances and their immanent validity claims. The relation of sentences to their validity conditions is not made, although this would have helped him to exit his *solus ipse* subject of knowledge. Instead, he puts these positions of speech act theory in perspective by reducing them to a social-political dimension of power relations.

Bains acknowledges that the social dimension of language, as put forward by Maturana & Varela and Deleuze & Guattari, is a non-reductive hypothesis. At the same time he identifies this social dimension as a (onto-logical) biological precondition. He re-naturalizes this social dimension of language into the (objectivistic) observer-perspective of relations in interactions and the interacting bodies (125). He even recognizes in Deleuze & Guattari the liberation of solipsistic foundations. "The 'subject' becomes a symbiotic node within social interactions" (127). This generates "self" as (a priori) part of socially interacting entities, but at the same time reduces this liberating aspect to the non-critically investigated post-structuralistic "exercise-of-power"-metaphor. Bains cannot imagine a reciprocal communication which gains its power by free agreements on validity claims of utterances.

Bains wants to escape the monadology of the solipsistic subject of knowledge of his ontological approach by focusing on the relation as Poinset's *ad-esse* ("being toward"). He also subsumes the interacting subjects in this "being-toward". As do Deleuze & Guattari, he identifies subjectivity interwoven in a network of mental skills, situative "Umwelten" and social interconnectedness. Based on his ontological point of view, however, he is unable to appropriately respond to these typical questions on the relation between inside and outside, thinking and world, terms (nouomenon) and reality (phenomenon). For him, relations are primarily "external to their terms". This yields a semiotics of reality, because the relations expressed in language are the relations of reality. Therefore, Bains is convinced of the *Primacy of Semiosis*.

To be sure, it is possible to think ontologically, to overlook the theory of science discourse between 1920 and 1980 and its consequences (the linguistic turn and the pragmatic turn), and to rebound the arguments to classical pre-Kantian metaphysics. But this yields a hopeless entanglement in classical metaphysical problems of inside/outside world, subject-object dichotomy, realism-objectivism-idealism, language and its "depiction" of "objective being". The description of Deleuze's speech act reflections provided Bains with the only opportunity to escape the *methodological solipsist* position that language and communication – even the validity claims he holds with his theoretical utterances – are, as social interactions, intersubjective. Then, he would have been able – like the Wittgensteinian "Fly" – to find his way out of the glass of philosophy of consciousness and its unsolvable metaphysical problem: how to make the move from a state of "private" consciousness to a state of mutual agreement and cooperation.

In contrast to the results of recent speech act theory or to a modern action-theory of sociology, Bains is unable to explain the commonly shared understanding of utterances by at least two interacting subjects as being the precondition of coordination and cooperation. But, if we want to understand semiosis (sign processes), we have to explain exactly this communal shared understanding. Bains' approach therefore leads to an abstractive fallacy within which the complementary roles of (a) the sign-using individual, (b) the signification and (c) the signified something is reduced to the relation "being-towards", the signalling process without the signal-generating subject.

Moreover, the thesis that relations by themselves are univocal creates problems. It would imply a strict relation between sentences which express relations to the reality. This attempt to construct a pure representational language is doomed to failure because even a

constructed formal artificial language does not exclusively contain terms that are univocal. Scientific statements are not attributable to immediate sensory experience, i.e., the language game used to describe observations does not mirror the brain activity during the perception of reality.

In the terms of Bains' language of ontology, problems also arise with understanding speech acts. It's not the identification of the relation which is established by these acts, but the understanding of the rules which govern the activity. This means I can also understand an act that runs counter to the rules. Speech acts I can understand if I share rule-governed sign-mediated interactions with at least one other subject. This has been shown by Wittgenstein's private-language-argument in that "It is not possible that there should have been only one occasion on which someone obeyed a rule." (Wittgenstein, 1968: 80). The competence to follow (semiotic) rules derived a priori from the experience of being part of social interactions. It is correct that interactions depend on real (or secondarily imagined) communal interactions, i.e. relations, but relations are the result of interacting subjects.

Semiotics, linguistics as well as communication theory and action theory share a present understanding of the primacy of pragmatics, as described by Bains using the "languageing"-concept of Deleuze. This would have been the opportunity for Bains to leave behind the ontology approach and his (*solus ipse*) observer perspective and to realize that his utterances – combined with his validity claims for the sentences he produces – are part of a language – a priori; he is unable to transcend this a priori through an ontological perspective. Every ontology in principle has to form sentences with validity claims. But he relativizes this language-a priori through a (post-structuralist) verdict that language per se is not "objective", but rather a tool of "powerplay" between communicative interactors.

The ontology of relations as an external-to-their-terms description of reality of relation-being is not helpful in understanding what generates relations between speech act subjects. Such an understanding must be coherent in both a scientific description as well as in an everyday language description to gain acceptance for validity claims by those who interact. This includes (Witzany, 2006):

- 1) The simultaneous understanding of identical meanings in two interacting partners, as expressed in successful coordination of actions;
- 2) The differentiation between deep and superficial grammar of utterances along with differentiation between locutionary, illocutionary and performative speech acts;
- 3) The differentiation between communicative (reciprocal) interactions and strategic (manipulative) interactions of communicating subjects;
- 4) The differences of the validity claims which are held with every utterance.

Such an understanding of language-use by humans has to become clear before any metaphysical or ontological utterance (necessarily undertaken in a language). Only such an understanding enables critical reflection on the conditions which must be fulfilled if a common agreement on validity claims is to be reached between interactional partners. Or how could I mention an ontological thesis without it having been expressed in an utterance by somebody?

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