

Introducing Biosemiotic Ethics*

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We dedicate this special issue on Biosemiotic Ethics to John Deely (1942–2017).

Summary. In this introduction to the special issue on Biosemiotic Ethics, we introduce major concepts and themes corresponding to the topic. With reference to Ivar Puura's notion of "semicide", we ask: what are the ethical responsibilities that attention to semiotics carries? We argue that if life is fundamentally semiotic, then biosemiotics and moral theory should be explored in conjunction, rather than separately. Biosemiotic ethics becomes relevant whenever one complex of signs impinges on another; particularly whenever human sign usage impinges on the wellbeing or sustainable functioning of human or non-human semiotic agents. Stable coexistence of sign systems is far from inevitable, but it is a meaningful goal that can be pursued. In complex ecosystems, for example, certain types of coexistent relationships have evolved to share space despite competitive needs and expressions. We describe the ways in which authors in this volume articulate various justifications for the view that what is morally relevant is semiosis. Given these perspectives in a growing approach to understanding moral relationships, biosemiotic ethics has the decisive advantage of drawing on contemporary biosemiotics' empirically-informed biological acuity within a rich semiotic framework.

Zusammenfassung. In dieser Einleitung zum Themenheft über biosemiotische Ethik stellen wir die wichtigsten Konzepte und Fragestellungen vor, die mit dem Thema zusammenhängen. Unter Bezug auf Ivar Puuras Vorstellung eines „Semiozids“ fragen wir: Welche ethischen Verantwortlichkeiten ergeben sich aus der semiotischen Betrachtung? Wir argumentieren, dass, wenn Leben fundamental semiotisch ist, Biosemiotik und Moraltheorie nicht getrennt betrachtet werden können. Biosemiotische Ethik wird immer dann relevant, wenn ein Zeichenkomplex auf einen anderen einwirkt, insbesondere dann, wenn menschlicher Zeichengebrauch sich auf das Wohlergehen oder nachhaltige Funktionieren menschlicher oder nicht-menschlicher semiotischer Akteure auswirkt. Die symbiotische Koexistenz von Zeichensystemen ist keinesfalls selbstverständlich, kann aber zur bedeutsamen

Zielsetzung werden. So haben sich zum Beispiel in komplexen Ökosystemen bestimmte Typen koexistenter Beziehungen entwickelt, in denen trotz kompetitiver Bedürfnisse und Äußerungen der vorhandene Raum geteilt wird. Wir beschreiben die verschiedenen möglichen Begründungen für die moralische Relevanz von Semiose, die von den AutorInnen dieses Bandes geliefert werden. Berücksichtigt man diese Perspektiven bei der wachsenden Annäherung an das Verständnis moralischer Beziehungen, dann zeigt sich der entscheidende Vorteil biosemiotischer Ethik darin, die empirisch fundierte biologische Exaktheit der zeitgenössischen Biosemiotik innerhalb eines reichhaltigen semiotischen Rahmensystems fruchtbar zu machen.

1. From Biosemiotics to Biosemiotic Ethics

Nearly twenty years ago, two of the most central contemporary biosemioticians, first Jesper Hoffmeyer (1993) and then Kalevi Kull (2001), addressed connections between biosemiotics and ethics. In the last ten to fifteen years, a new generation of scholars have started working out the shape and implications of a biosemiotic approach to ethics (see e.g. Tønnessen 2003; Beever 2011; Champagne 2011; Acampora 2014; Tønnessen and Beever 2014). The foundational idea is that if all living systems are semiotic, then biosemiosis can serve as basis for justifying attribution of moral status not only to human individuals but also to non-human individuals and to various ecological entities as well. Most of the scholars involved in this endeavor have taken Jakob von Uexküll's Umwelt theory as their starting point in biology (cf. Beever and Tønnessen 2013; Uexküll 2013) and Charles Sanders Peirce as the theoretical framing of semiotic interactions (Favareau 2010a). Uexküll's Umwelt theory focuses attention on the phenomenological experience of individual organisms in their unique worlds of experience. In a modern interpretation, Peirce's tripartite semiotic model opens space for thinking about the richness of meaningful interactions among and between organisms and their environments. These framing theories were put to explicit use in what would become biosemiotics in the work of semiotician Thomas Sebeok (1920–2001).

The lifework of Thomas Sebeok culminated in the development of the contemporary field of biosemiotics. As Don Favareau notes in his *Essential Readings in Biosemiotics*, "Sebeok was not the first to coin the compound noun joining 'bio' with 'semiotics', however, it is the specific project that Sebeok initiated and christened as such that is the subject of this history" (Favareau 2010a: 35). While Sebeok first established zoosemiotics, the study of animal semiosis, as a field, he "shifted to using 'biosemiotics' as a general term in the 1990s" (Maran 2014: 1). See also Kalevi Kull (1999: 128), who claims that

biosemiotics as a discipline or field was born [...] at the beginning of the 1990s, since this is the decade, when the name was taken into use in the titles of books

and conferences, when an international society-like group of people appeared who regularly met and made attempts to approximate to each other's terminology, when the first university courses on the subject appeared, and when the history of the field was first reviewed (or built and constructed).

However, "as a domain", Kull (1999: 128) claims, biosemiotics "has existed [...] at least since the first decades of [the 20th] century". Biosemiotic analysis has been applied in many different contexts as well, including not only biological but also cultural issues.

Both cultural and biological diversity – the former arguably being a subcategory of the latter – can be conceived of in terms of semiotic diversity. The Estonian geologist and paleontologist Ivar Puura (1961–2012) coined the notion of semicide, "a situation in which signs and stories that are significant for someone are destroyed because of someone else's malevolence or carelessness, thereby stealing a part of the former's identity" (Puura 2013: 152). "By wholesale replacement of primeval nature with artificial environments", writes Puura (2013: 152), "[a]t the hands of humans, millions of stories with billions of relations and variations perish". As Timo Maran (2013) remarks, according to Puura

the phenomenon of semicide is very widespread both in human culture and society as well as in relations between culture and nature. Unfortunately, semiotics appears to have overlooked this dark side of semiotic relations, as is evident from the lack of a conceptual framework and studies dedicated to this topic. [...] This is a question of the ethical responsibility of semiotics (Maran 2013: 148).

Respecting the semiotic richness of others – be they human or not – is key for taking the field of semiotics beyond logical or conceptual analysis. Connecting semiotic fitness and the interface of competing semiotic structures with moral value allows for self-reflexivity towards the way and means of sign usage, especially insofar as one complex of signs impinges on another.

Such considerations are relevant for better understanding what is lost when one culture conquers or absorbs another. In such cases, the loss of orientation accompanying the fragmentation of one's semiotic framework has implications for capabilities such as interactions with other species, emotional attachments, and modes of play (Nussbaum 2009), which affect one's self-identity (Wolch 2002) and hence ability for survival and thriving in a semiotically-foreign milieu (Böll 2008; Wheeler 2006). Extricating beings from their semiotic niches, especially fully-formed people or organisms – less adaptive to retool their semiotic reference points that anchor their behavior and self-conception – can be conceived as a sort of violence in its manifold disorienting effects.

Paying additional attention to the effects of signs – their externalities, as it were – allows for what Merleau-Ponty (1968) terms *surréflexion*: using our human strength of abstraction to reflect upon our own reflections for the sake of overcoming dominating behavior. Stressed here is the sobering

realization that a democratic or symbiotic coexistence of sign systems is far from an inevitable outcome, but instead something that should be assiduously attended to, if such an outcome is valued.

“Signs can be cultivated”, Tønnessen (2009: 78) states. “Signs can be grown. How else would we be able to conquer this planet?” As signs evolve, and certain cohesive sets of signs become commodified, infecting the semiosphere at large, the question arises: “can we still develop a semiotic [ethical] code” in times of semiotic hegemony? Is it still possible to cultivate a “code of conduct for the semiotic animal?” Such an enterprise “would amount to a proper semioethics” (Tønnessen 2009: 78). This infectious growth of signs, both cultural and biological, gives rise to one way of understanding a (bio)semiotic ethic: as a human responsibility to ethically cultivate, harvest, and tend that growth of meaning in the world.

2. The Ethology of Power Struggles

Meaningful relationships are key to a semiotic understanding of nature and society alike, implying that we cannot properly understand human-animal relations in any fully detached, distanced manner. In many cases, understanding the ways of a living being presupposes being with it – we can only properly understand that of which we are part ourselves. Rather than what Ulrich Beck (1992) has called “distanciated” science, biosemiotic ethics draws on emerging paradigms of biological and social research based on including experimenters in the observation (see Nagel 1986 and Merskin 2010). “The ethologist”, writes Dominique Lestel (2011: 98), “has to be as creative as possible. The more creative he or she becomes, so the more complex and interesting the animal becomes.” Animals do “not allow for their objective [distanced, impersonal] description, because understanding them requires us to work with the animal (rather than on the animal)” (Lestel 2011: 92). Studying animals in an impersonal way, then, does not say much about how we humans can live in community with animals. Refusing to allow oneself to enter into the semiotic world of another – human or more-than-human – can amount to a sort of semiotic imperialism, the very sort excoriated by an ethical biosemiotics. Only humans – initially, a certain subsection of humans, mainly landed men of European origins – have uniquely adapted to systematically ignore, numb out, or purposefully overlook the signs of their own conspecifics and interspecifics, when this suits their instrumental purposes. In a sense, one could say that human instrumentality is unique in life, thus requiring a unique ethics. Power struggles like these between humans and non-humans can be analysed in terms of semiotic agency, as associated with agency theory in economics and political science.

Also in the living realm at large [...] prospective ‘principals’ attempt to establish “principal-agent” relationships, where the recruited ‘agent’, which might or might not be directly submissive, is expected to act in the interests of the principal, so as to maxi-

mize its welfare rather than its own. [...] As examples, livestock stereotypically represent 'agents' subjected to the care of human 'principals', with the task of maximizing the welfare of human beings as their *raison d'être*, and well-functioning working animals (such as guide dogs for the blind, or police dogs) are in a sense by definition agents for human principals (Tønnessen 2015: 140).

Indeed, such semiotic power struggles happen amongst nonhumans as well, such as when ants harvest mushroom farms (Witte and Maschwitz 2008), or when cordyceps mushrooms harvest ants (Evans and Samson 1982). While principal-agent relations are not morally suspicious by definition, a non-anthropocentric environmental ethics must question which relations, among a number of existing and possible principal-agent relations, are morally acceptable and which ones are not. Biosemiotic ethics, which tends to emphasize that all living/semiotic beings have moral standing, will typically hold that the welfare of principals and agents alike matter equally (in the sense that both principals and agents have equally legitimate needs that should be met as far as possible). This loose egalitarian view entails, at the very least, that principal-agent relationships that are systematically biased towards supporting the welfare of the human principal only (versus a non-human agent) are morally illegitimate unless further justified. The onus for certifying human-nonhuman relationships which are steeply hierarchic, then, rests with the benefitting humans. These conceptual and ethical struggles are at the heart of biosemiotics, which must wrestle with the value conflicts between cultural and broader biological biosemiotic value claims.

Such ethical imaginings are predicated not only on viewing nonhuman beings as semiotic agents, but also, as a result, as beings deserving of moral standing, however differentially conceived. This can furthermore be parsed into beings that display varying degrees of what we would term possible moral agency, and those where such abilities are not apparent. Thus, one central biosemiotic ethical question is: to what extent, if any, should non-humans be regarded as moral agents (cf. Deely and Hendlin in this special issue)? And if so, in what circumstances are they ethical? From a biosemiotic standpoint, this raises a variety of issues, including the question of nonhuman ethics.

In the past decades plural conceptions of ethical behavior have appeared as perhaps incommensurable, but nonetheless valid within the specific concepts and *Weltanschauungen* in which they occur (cf. Dryzek 2000; Parek 2002). In a similar manner, the very concept of ethics is stretched if we postulate that ethics from a nonhuman point of view might be similarly valid (in their own ecological and species-specific milieus vis-à-vis the participating parties) as our own anthropological ones.

Val Plumwood elaborates the need to deconstruct the conceptual and ethical siloing of humans and nature as separate categories that leads to ascribing ethics as the domain solely of humans (2002: 51): "The idea that we humans are completely immersed in a self-enclosed sphere of our own we

can call ‘culture’ while non-humans are part of a non-ethical sphere of ‘nature’ is the leading assumption that corresponds to and structures these disciplinary exclusions”. Thus, in keeping with Uexküll’s original insight that different sensorially-composed organisms perceive and interpret their surroundings correspondingly, so too, one might claim, what counts as ethical action may take varying forms according to the relating species (Hendlin 2016).

As Arne Johan Vetlesen (2015: 3) points out, our “culture increasingly renders nature abstract: out of sight, out of mind”, and ecological devastation as a process is “accompanied by a mindset of abstraction: what is being done to nature in and by this culture is not in any firsthand way experienced, sensed, felt by the majority of the agents involved in the destructive practices in question” (Vetlesen 2015: 3). We concur with Vetlesen that it is paramount that environmental philosophers should pay “attention to the empirically informed literature about what life is actually like for humans and for nature in the era of twenty-first century global capitalism” (Vetlesen 2015: 2). In consequence, environmental philosophers “should be wary of perpetuating such abstraction” (Vetlesen 2015: 3) that underlies ethical accounts that pretend that “the ontological as well as moral nature of [the human–nature relation] and the entities making it up can be inquired into as well as settled once and for all, *sub specie aeternitatis*” (Vetlesen 2015: 2). Biosemiotic ethics is, and must be, empirically informed. “The scientific foundation of contemporary biosemiotic theory”, as Beever (2011: 181) states, “grounds a theory of moral value capable of addressing [the problem of determining and defining the scope of moral value]”, by suggesting “that what is morally relevant is semiosis”.

At any rate, biosemiotics acknowledges that all living beings have some form of semiotic agency and that this includes a measure (which varies) of autonomy. Some would hold that a key feature of a biosemiotic approach to ethics should be to respect, and be sensitive with regard to, such semiotic agency and autonomy in everything that lives. How this cashes out is at the heart of the contemporary discussion about the nature and future of biosemiotic ethics.

3. Outline of the Issue

In this volume, we bring together contemporary scholars giving voice to biosemiotic ethics in order to explore the sorts of concepts and conflicts identified above.

Semiotician and philosopher John Deely carefully engages in the discourse of biosemiotic ethics, articulating conceptual distinctions between types of signs and types of environments that lead him to a “semio-ethical” conclusion; namely, that all and only human beings are capable of a type of semiosis with direct ethical implications. Human responsibility in and to the semiosphere is an ethical result of this morally laden semiotic ability.

Beever and Tønnessen identify conceptual tensions in justifying the connection between semiosis and moral relevance. They propose a particularist view: biosemiotic ethics, on their account, must focus on the particular context of the individual organism and its unique ecological relationships. Without this specific focus, biosemiotic ethics overreaches both conceptually and normatively.

Andreas Weber engages this same conceptual work in marking out a wide swath of concepts that, on his account, must be carefully analyzed before a biosemiotic approach to ethics can take hold. The rich interplay among these concepts, from meaningful relationships, to the nature of biological subjecthood, to the structure of ontology, form the basis for a biosemiotic ethic. Weber calls this interplay poetic objectivity – an ethically rich view of reality that is shared among individuals, generations, and ecological contexts.

Yogi Hendlin pushes proposals for moral standing in biosemiotic ethics outward, arguing for consideration of the ethical implications of interspecies and conspecific semiotic interactions, i.e. implicitly semiotically motivated moral agenthood. On Hendlin's read, a focus on the level of freedom of semiotic communication entails that the greater the semiotic freedom, the more ethically rich we interpreters are likely to view it as.

Hans Werner Ingensiep sets out to investigate bio-phenomena such as motion, emotion and cognition from a point of view informed by biosemiotics. His article makes use of three examples: Apes, kingfishers, and the *Mimosa pudica*, also called sensitive plant, in an inquiry into the ethical relevance of different phenomena in nature. With this angle, Ingensiep builds on but also challenges the traditional division of nature into human – animal – plant.

Animals, Jessica Ulrich explains, feature in contemporary art as motif, material or medium, and in some cases this practice has been criticized for being ethically problematic. Other artists, however, explore development of artworks that let animals play a more active and autonomous performatory role. In her article, she examines the semiotic contributions of animals in such works of art, aiming to arrive at observations on what ethically responsible art featuring live animals might look like.

Konrad Ott develops a biosemiotically oriented discourse ethics. At first glance, discourse ethics is not necessarily suited as framework for development of non-anthropocentric ethics, since, in Jürgen Habermas' pioneering version, it presupposes that only human beings are communicative in the sense of having language. Traditionally, then, discourse ethics has been limited to the human realm. The challenge of overcoming discourse ethics' traditional anthropocentric bias makes Ott's contribution all the more intriguing.

Gerald Ostdiek, in a thoughtful review of Deely's essay in this issue, works to further and extend that careful analysis. Ostdiek argues that the semiotic/semiotic distinction might not break at the level of the human: signs evolve, and so conceptual distinctions must as well.

London Metropolitan University Emerita Professor of English Literature and Cultural Inquiry Wendy Wheeler shares her thoughts on biosemiotics and ethics in an interview with the editors of this special edition. From Wheeler's perspective, a biosemiotic ethics must be grounded in what may be a radically new ontology, a view of the world and its relations. Understanding interdependence, or ecology, in semiotic terms can help shift our moral intuitions about what matters and why – and direct attention to a biosemiotic approach to ethics.

As biosemiotic approaches to ethics continue to grow, they must be carefully cultivated, pruned, shaped, and tended by the community of inquirers from whom they have germinated. We are pleased to have edited this volume toward that end.

Notes

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References

- Acampora, Ralph R. (2014), "The (proto-)ethical significance of semiosis: When and how does one become somebody who matters?" In: Kadri Tüür and Morten Tønnessen (eds.), *The Semiotics of Animal Representations*. Amsterdam and New York: Rodopi: 343–362.
- Beck, Ulrich (1992), *Risk society: towards a new modernity*. London, UK: Sage.
- Beever, Jonathan (2011), "Meaning matters: The biosemiotic basis of bioethics". *Biosemiotics* 5, 2: 181–191.
- Beever, Jonathan and Morten Tønnessen (2013). "'Darwin und die englische Moral': The moral consequences of Uexküll's Umwelt theory". *Biosemiotics* 6, 3: 437–447.
- Böll, Mette M. R. (2008). "Social is Emotional". *Biosemiotics* 1, 3: 329–345.
- Champagne, Marc (2011), "Axiomatizing umwelt normativity". *Sign Systems Studies* 39, 1: 9–59.
- Dryzek, John (2000), *Deliberative democracy and beyond: Liberals, critics, contestations*. Oxford and New York: Oxford University Press.
- Evans, Harry C. and Robert A. Samson (1982), „Cordyceps species and their anamorphs pathogenic on ants (Formicidae) in tropical forest ecosystems I. The Cephalotes (Myrmicinae) complex". *Transactions of the British Mycological Society* 79, 3: 431–453.

- Favareau, Donald (2010a), "Introduction: An Evolutionary History of Biosemiotics". In: Donald Favareau (ed.): 1–77.
- Favareau, Donald (ed.) (2010b), *Essential Readings in Biosemiotics*. Dordrecht, Heidelberg, London and New York: Springer.
- Hendlin, Yogi H. (2016), "Multiplicity and Welt". *Sign Systems Studies* 44, 1–2: 94.
- Hoffmeyer, Jesper (1993), *Biosemiotics and ethics*. In: Nina Witoszek and Elisabeth Gulbrandsen (eds.), *Culture and Environment: Interdisciplinary Approaches*. Oslo: Centre for Development and the Environment: 152–176.
- Lestel, Dominique (2011), "What Capabilities for the Animal?" *Biosemiotics* 4, 1: 83–102.
- Kull, Kalevi (1999), "On the history of joining bio with semio: F. S. Rothschild and the biosemiotics rules". *Sign Systems Studies* 27: 128–138.
- Kull, Kalevi (2001), "Biosemiotics and the problem of intrinsic value of nature". *Sign Systems Studies* 29, 1: 353–365.
- Maran, Timo (2013), "Enchantment of the past and semicide. Remembering Ivar Puura". *Sign Systems Studies* 41, 1: 146–149.
- Maran, Timo (2014), "Dimensions of zoosemiotics. Introduction". *Semiotica* 198: 1–10.
- Merleau-Ponty, Maurice (1968), *The visible and the invisible: followed by working notes* (C. Lefort, Trans.). Evanston: Northwestern University Press.
- Merskin, Debra (2010), "Hearing voices: The promise of participatory action research for animals". *Action Research* 9, 2: 144–161.
- Nagel, Thomas (1986), *The View from Nowhere*. New York: Oxford University Press.
- Nussbaum, Martha. C. (2009). *Frontiers of Justice: Disability, Nationality, Species Membership*. Cambridge MA: Harvard University Press.
- Parekh, Bhikhu. C. (2002), *Rethinking Multiculturalism: Cultural Diversity and Political Theory*. Harvard: Harvard University Press.
- Plumwood, Val (2002), *Environmental culture: The ecological crisis of reason*. London and New York: Routledge.
- Puura, Ivar (2013). "Nature in our memory". *Sign Systems Studies* 41, 1: 150–153. Translation by E. Sütiste and T. Maran.
- Tønnessen, Morten (2003), "Umwelt ethics". *Sign Systems Studies* 31, 1: 281–299.
- Tønnessen, Morten (2009), "Meditationes Semioticae: Signs grow – but should they? Semioethics and the dominant semiosis of *Homo sapiens sapiens*". *Hortus Semioticus* 4: 76–79.
- Tønnessen, Morten (2015), "The Biosemiotic Glossary Project: Agent, agency". *Biosemiotics* 8, 1: 125–143. With Appendix.
- Tønnessen, Morten and Jonathan Beever (2014), "Beyond sentience: Biosemiotics as foundation for animal and environmental ethics". In: John Hadley and Elisa Aaltola (eds.), *Animal Ethics and Philosophy: Questioning the Orthodoxy*. London: Rowman & Littlefield International: 47–62.
- Uexküll, Jakob von (2013), "Darwin and the English Morality". Translation of "Darwin und die englische Moral". *Deutsche Rundschau* 173: 215–242. *Biosemiotics* 6, 3: 449–471. Translation by Morten Tønnessen, English language editing by Jonathan Beever.
- Vetlesen, Arne Johan (2015), *The Denial of Nature. Environmental philosophy in the era of global capitalism*. London and New York: Routledge.
- Wheeler, Wendy (2006), *The Whole Creature: Complexity, Biosemiotics and the Evolution of Culture*. London: Lawrence & Wishart.

Witte, Volker und Ulrich Maschwitz (2008), "Mushroom harvesting ants in the tropical rain forest". *Naturwissenschaften* 95, 11: 1049–1054.

Wolch, Jennifer (2002), "Anima urbis". *Progress in Human Geography* 26, 6: 721–742.

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