

## **Semiotics and Jakob von Uexküll's concept of umwelt**

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**Abstract.** Semiotics, the body of knowledge developed by study of the action of signs, like every living discipline, depends upon a community of inquirers united through the recognition and adoption of basic principles which establish the ground-concepts and guide-concepts for their ongoing research. These principles, in turn, come to be recognized in the first place through the work of pioneers in the field, workers commonly unrecognized or not fully recognized in their own day, but whose work later becomes foundational as the community of inquirers matures and 'lays claim to its own'. As semiotics has matured, the work of Jakob von Uexküll in establishing the concept of Umwelt has proven to be just such a pioneering accomplishment for the doctrine of signs, and in this paper I trace out some of the lines of development according to which Uexküll's concept came to occupy its central place in semiotics today.

*Nature may be compared to a composer who listens to his own works played on an instrument of his own construction. This results in a strangely reciprocal relationship between nature, which has created man, and man, who not only in his art and science, but also in his experiential universe, has created nature. [...] The formula of the reciprocal relationship between man, who must, in his self-world, create nature, and nature, which has brought forth the human species, requires us to consider the relationship between sign processes in nature and in language.*

T. von Uexküll 1992: 281, 282

In speaking about one of the central concepts from the work of Jakob von Uexküll, namely, the concept of *Umwelt*, I will be addressing the matter not from the point of view of a scholar who has been steeped in the original writings themselves of Uexküll, but from, as it were, an ecumenical point of view,<sup>1</sup> from the point of view of the unmistakable influence that Uexküll has exercised over approximately the last quarter-century on the development of theoretical semiotics in the United States. So I present to you a snapshot from what Sebeok hoped would develop into “a program for the amalgamation of main trends” (Sebeok 2001: xvii) in the development of semiotics as we crossed the threshold of the 21st century.

### **1. Jakob von Uexküll as cryptosemiotician**

The American who should be standing before you to speak on this matter today is Thomas A. Sebeok. Professor Sebeok would have rejoiced in this occasion, and would even have attached to it, I dare say in the tones of German philosophy, a world-historical importance. My own acquaintance with and interest in the work of Jakob von Uexküll stems directly from my long association with Sebeok, beginning indeed about seven years prior to his influential identification of Uexküll as a “cryptosemiotician” and “neglected figure in the history of semiotic inquiry” (Sebeok 1979).

Now the concept of a cryptosemiotician is very interesting. It names that considerable group of intellectuals whose work is intrinsically semiotic, but who themselves have or had no awareness of semiotics as a distinct perspective with a paradigm of its own. As a consequence of the very nature of their work, these thinkers would benefit enormously were they to become aware of semiotics and the vantage it affords. Of course, the achievement of an explicitly semiotic consciousness is possible only for present and future workers of the mind. The only alternative available to past workers — those who are dead by the time semiotics became established — is that their work be taken up anew among the living to be reclaimed and re-established from within the perspective of the doctrine of signs. This is the task of semiotic historiography, as Sebeok put it, to “assess the contributions

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<sup>1</sup> Cf. Sebeok 1976; 1977.

of a host of 'neglected' giants", among whom Jakob von Uexküll ranks foremost among the moderns.

By the time I made my own attempt to lay out the "basics of semiotics",<sup>2</sup> it was clear to me that Uexküll was "the single most important background thinker for understanding the biological conditions of our experience of the world in the terms required by semiotic" (Deely 1990: 120). His concept of Umwelt is at the center of this importance. So what I would like to speak to you about this morning is how I came to this assessment of the importance of Uexküll for semiotics today, and how my understanding of semiotics has influenced my understanding of the concept of Umwelt.

## **2. Sebeok's introduction of Uexküll to the Semiotic Society of America**

I was together with Sebeok in Tampa, Florida in 1975, as the secretary of the committee charged with drafting a Constitution for the Semiotic Society of America (SSA), and with him in 1976 when the SSA held its first Annual Meeting as officially incorporated under United States law. At the 7th Annual Meeting held in Buffalo, New York, Sebeok brought to the occasion as a plenary speaker Jakob's son, Thure von Uexküll. Thure addressed the meeting on "Semiotics and the Problem of the Observer". It is some measure of the significance of the occasion, certainly a sign of the import that Sebeok attached to it, that this presentation by Thure was published not only in the *Semiotics 1982 Annual Proceedings* volume (T. v. Uexküll 1987a), but was published also in *Semiotica* under Tom's editorship.<sup>3</sup> In addition, Sebeok organized for the meeting a Plenary Session on the theme of "the role of the observer".<sup>4</sup> As one of Sebeok's younger associates, I had the privilege at that occasion of meeting Thure von Uexküll in person. I am quite sure that the occasion did not have for him at the

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<sup>2</sup> Deely 1990, described by Sebeok at the time (on the book's flyleaf) as "the only successful modern English introduction to semiotics".

<sup>3</sup> T. von Uexküll 1984. In this *Semiotica* publication, p. 195, the Buffalo SSA 7th Annual Meeting is incorrectly reported as the 10th Annual Meeting.

<sup>4</sup> Williams 1987 was presented in this session; no others prepared their remarks for publication.

time the same importance it had for me, and I doubt even that he would remember the meeting.

In the Spring of the following year, 1983, Sebeok proposed that he and I, working together with Thure von Uexküll and Martin Krampen, should write what he called a “Semiotic Manifesto”. This document aimed to declare and to show to the intellectual world at large that semiotics provides a new paradigm on the basis of which (an interdisciplinary framework within which) the long overdue reintegration of the natural and human sciences could be wrought. To this end, two additional collaborators were eventually brought on board; and the final text of our “manifesto” was published in a 1984 issue of *Semiotica* under the title “A Semiotic Perspective on the Sciences”.<sup>5</sup> One of the beliefs animating this “manifesto” was that semiotics achieved a level of intellectual synthesis capable of showing that the “multifarious, stale oppositions of realism and idealism” in philosophy were the offspring of a dichotomy misbegotten in the first place.

Perhaps I should not have been surprised, as I was at the time, that precisely from this presemiotic philosophical opposition definitive of modernity in philosophy sprang the one near-acrimonious exchange among the co-authors of the then *in nuce* semiotic manifesto.

## 2a. A technical point concerning sensation

Jakob von Uexküll had received his main philosophical formation, I take it, from the German writings of the Master of the Moderns, Immanuel Kant. I, quite the contrary, had received my main formation in philosophical thought from the Latin writings of Thomas Aquinas on Aristotle. Between these two masters there is one principal divide. It concerns a very technical point in the matter of how one is to interpret the activity of so-called external sense. For Kant, the intuitions of sense are already perceptual cues to which the organism in responding gives formation according to its own basic constitution — in the human case, the joining to sensory intuition of a-priori forms of understanding. The concepts of the understanding yield to “the unknowable”, however (according to Kant), in two instances: if I try

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<sup>5</sup> See Anderson *et al.* 1984.

to extend my intellectual knowledge beyond the intuition of sense to the stimulative source of the content of that intuition, I hit the wall of the Ding-an-sich as unknowable; or, again, if I try to extend my intellectual knowledge beyond the giving of structure to sense perceptions, I hit the wall of the Noumenon as likewise unknowable.<sup>6</sup>

The position of Aquinas is more subtle than this, in a way that leaves abundant space for what is *unknown*, but no space at all for what is *unknowable* (according to the common medieval maxim: *ens et verum convertuntur, omne ens est verum*).

The position of Aquinas as ruling out the concept of “unknowable” as a legitimate category of understanding, equally on the side of things and on the side of concepts, requires a prescissive distinction between *sensation* (as the action of the environment upon the animal body objectifying certain aspects only of the surroundings) and the higher-level *perceptual response* to that stimulus (wherein the “data” of sensation, never atomic but already a complex and multiple network of naturally determined sign-relations, wherein differentiations of light reveal also shapes, positions, and movements, etc., are *further* structured into *objects* of experience). It is here in the active perception of objects that the animal classifies them, as Sebeok so often put it, as to be sought (+), to be avoided (–), or to be safely ignored (0). The human understanding adds to these objects of perceptual experience so classified perceptually — to the Umwelt as a whole, let us say — a “relation of identity”, or “relation of the object to itself”, which does no more than sever the exclusive link of the perceived objects to the perceiver, but which by this very fact allows the objects to be considered instead (in the terms of Aquinas) as *beings* (this is a very different matter than “neutral or 0 objects”) — entities which may or may not have an internal structure or constitution independent of their relevance to me as an animal among other animals. In instituting rational investigation of objects experienced, the human animal soon enough discovers that not all objects reduce to our experience of them, although some objects do indeed so reduce.

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<sup>6</sup> Hence Kant's famous formula (1787: 75): “Gedanken ohne Inhalt sind leer, Anschauungen ohne Begriffe sind blind” — “Concepts without percepts are empty; percepts without concepts are blind.” Extended commentary in Deely 2001b; see in particular the Index entry for “Unknowability” and “Unknowable”, p. 1009.

The question of “which is which” within experience becomes the story of science, literature, and philosophy.

## 2b. The coextensiveness of communication and being

In this way of considering the matter, there is no “unknowable” in principle, only many “unknowns” in fact. That there are, in principle, “unknowns but no unknowables” was also the view of Sebeok and semiotics (in contrast to semiology,<sup>7</sup> as to all the aspects of intellectual life influenced by Kant’s distinctive epistemological thesis), as Petrilli and Ponzio so nicely summarized the matter in their recent biography of Sebeok (which had the good fortune of appearing before Tom’s final illness settled on in earnest):<sup>8</sup> “Communication and reality, communication and being, coincide”, *ens et verum convertuntur*.

In other words, astonishingly, the postmodern interpretive horizon at the heart of semiotics — a horizon abandoned by modern philosophy, but never wholly by modern science (which only added to it the notion of reality as socially constructed, in addition to the medieval *ens reale* notion of reality as given in advance of human action) — depends upon the truth of a medieval conviction that *ens et verum convertuntur*, “communication and being are coextensive”, as Petrilli and Ponzio put it in Sebeok’s behalf. But from this formula, it seemed to me (as to Peirce<sup>9</sup>), that semiosis itself, the action of signs, could be traced also in the inorganic realm prior to and apart from (indeed as preparatory for) the advent of organisms *as well as* within and among living things. That “Umwelt-theory draws the line between

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<sup>7</sup> See Deely 2001b: Chapter 16. On the question of terminology alone as such, see Deely 2003a; 2004.

<sup>8</sup> Petrilli, Ponzio 2001: 54. Jakob von Uexküll learned a lot from Kant, and may not have conceived of the Umwelt without the stimulus of Kantian philosophy. Yet it remains the case that “a science that embraces natural systems of signs alongside and before the human system of signs” not only “breaks down our traditional division into natural sciences and human sciences” and is the shortest route to overcoming “many of the misinterpretations” of Jakob von Uexküll’s Umwelt theory, as his son Thure points out (T. v. Uexküll 1987a: 3); such a science, semiotics by name, is also incompatible with the Kantian *Critique of Pure Reason*, if it is true that communication and being coincide.

<sup>9</sup> See Deely 1996 for full discussion.

animate and inanimate nature” rather than “between nature and man”<sup>10</sup> à la the modern philosophers seemed to me no less a mistake, for inanimate nature is still nature, and nature in a sense presupposed to and essential as a context for the dimension of organisms, living things as such. The fact that plants as such do not even have *Umwelts*<sup>11</sup> does not help to understand why a distinction that seems quite unessential to the theory should be regarded as necessary to or entailed by it. It was my unresolved disagreement with Sebeok, unfortunately, for by the time I realized its dimensions he was no longer with us, or at least not sufficiently so to leave his own final response.<sup>12</sup> The “central preoccupation” of semiotics may be, à la modernity, exactly as Sebeok said,<sup>13</sup> “an illimitable array of concordant illusions”; but “its main mission”, as he went on to say,<sup>14</sup> is “to mediate between reality and illusion.” Let us put the matter this way. For Aquinas, the species-specifically distinctive awareness of the human animal is the awareness of being, which includes illusions (under his rubric of *entia rationis*, where fall logical relations as well), yes, but also the whole realm of nature. For Kant, by contrast, as for the moderns he synthesized, precisely this *ens reale* is what passes ‘under erasure’.

Once I had come to look on the situation of semiotics today in this light, I realized also that not only was semiotics in its essence “postmodern”, because it brought this world of nature back out from under the erasure in which modern philosophy had placed it, but so was Sebeok himself, *malgré lui*, postmodern in his understanding of things (Deely 2001c). Petrilli and Ponzio, in their recent study of Sebeok’s work (which, as I said, had something of his endorsement), capture the postmodern essence of the way of signs as Sebeok envisioned it exactly: “there is no doubt that the inner human world, with great effort and serious study, may reach an understanding of non-human worlds and of its connection with them” (Petrilli, Ponzio

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<sup>10</sup> Thure von Uexküll 1992: 284: “The Umwelt-theory draws the line not between nature and man, but between animate and inanimate nature. The structural laws which it postulates as nature-plans, and which are analogous to the structural laws of linguistics, are applicable only to living organisms.”

<sup>11</sup> Cf. Krampen 1981; Deely 1987.

<sup>12</sup> I refer to our e-mail correspondence around the American Thanksgiving holiday in 2001. See the further discussion below, p. 11 to end of essay.

<sup>13</sup> In his Presidential Address to the Semiotic Society of America, Sebeok 1984: 77–78.

<sup>14</sup> *Ibid.*

2001: 20). Unknowns, yes, in abundance. Unknowables, no, at least not in principle.

## 2c. The status of objects as perceptible

But to get back to the one misunderstanding in the generation of the manifesto. That all animals in perception organize and classify objects as +, −, or 0 was well agreed among all the participants. But the 0 objects, the *Gegenstände*, what status do they have in the Umwelt? Thure von Uexküll suggests that they have no status at all, that they “do not exist” for the nonhuman animals, and I would not doubt that in this he expresses exactly his father’s view as well. I am not so sure. I think that the animals often — I think of the so-called “higher” animals, those able to ‘learn from experience’, that is<sup>15</sup> — have an awareness of the “zero-object”, in that “zero” here does not mean ‘non-existent for awareness’ but rather ‘something that may be in awareness neither as to be sought nor to be avoided but simply as to be safely ignored’. And in this +, −, 0, perceptual classification, of course, the animal can be mistaken! I do not think that the awareness of neutral objects is what characterizes the semiosis of the human animal, anthroposemiosis, but rather the awareness of *any* object and *every* object under the guise of being, ‘that which is’, to be sorted out as mind-dependent or mind-independent (for “being is said in many ways”, as Aristotle early noticed).

Thus, where Uexküll in his original work speaks of the subject-object dichotomy, a split very comfortable in modern thought, I, coming from my Latin background, did not and do not find the dichotomy comfortable at all. This discomfort went back to my student days reading the Latin commentaries on Aristotle. It was, if not the first, certainly one of the first, times that I went to the room of my then-professor, eventual doctoral dissertation advisor, and after that life-long friend, the Dominican friar Ralph Austin Powell, that I posed to him the idea that Kant, in his *Kritik der reinen Vernunft*, had precisely confused what was true of sense perception precisely distinguished from sensation as such (namely, that it introduced into the organization of objects the needs and desires of the animal’s subjective constitution as an organism) with what ought to be said rather of understanding or “reason” (namely, that it was capable of

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<sup>15</sup> Deely 1971.



investigating the objects of perception according to what they are and require to be as they are both within and apart from the perception of human animals).

What distinguished human understanding from animal perception in that case would be precisely that sense perception is *completely* biologically determined. Perception arises from sensation as a need to structure objectivity, and perception returns to sensation with the objects structured. Understanding, by contrast, begins from the world of perceived objects, exactly so, but by presenting those very objects in a biologically underdetermined way, namely, as not only +, −, 0, but also as having an intrinsic determination involved with but not wholly reducible to their appearance as +, −, 0.

## 2d. Objects as intelligible

As involving sensations at their core, the perceived objects necessarily involve something of the physical environment in its physical being, proximally depending upon the type of animal body involved, it is true, but in a selective rather than interpretive fashion.<sup>16</sup> As involving perception, this core is *further* structured and presented as objective in a species-specific way — interpreted, that is, according to the constitution or ‘nature’ of the particular animal which is perceiving. But as *further* involving understanding, the actually perceived objects are presented rather as actually intelligible, that is to say, as objects *able to be investigated* according to the being they have as involving subjects in their own right, as involving a world of things manifested within objectivity but extending in some ways (*ens reale*) and not in other ways (*ens rationis*) beyond the objectivity constitutive of experience as a whole. The Latins put this well: “*aliae enim sunt divisiones entis in esse rei, aliae in genere scibilis*”.<sup>17</sup>

For this picture, the “subject-object” split of modern philosophy, where the subject is one kind of being in its own right, and the object quite another, will not do. As has so often proved to be the case in semiotics, a trichotomy is here necessary. For there is in the world of

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<sup>16</sup> See Deely 2001b: 341–357, esp. 435–347.

<sup>17</sup> Poinset 1632: 149/44–46, and *passim*: “for the divisions of being in the order of physical existence are one thing, while divisions in the order of the knowable are quite another”. Cf. also Cajetan 1507.

experienced objects not only what exists as known — namely, the object as such. There are also elements within the objects which human experience tells us exist whether or not any organism is aware of them — things, let us call them, these aspects of objects which may happen to be known but which can exist also apart from the awareness. And both of these are distinct from (even when factually coincident with) the so-called “signs” whereby one thing, one object, one element within awareness, points or leads to another awareness. For signs in this sense can belong to either order. Clouds, for example, as signs of rain exist as signs in the experience of many animals. But clouds have a connection with rain, not only one that is revealed in that experience but also one that is knowable in that same experience as going beyond that experience; whereas flags have a connection to country nowhere but within the experience of human animals.

You can see, in these terms, that Jakob von Uexküll’s “subject” belongs to the world of things, but that his “objects” involve a confusion or mixture, an amalgam, even, of objects *and* things. You can see further that the Umwelt is an exclusively objective world, not because it does not involve things, but because it involves things only in *known* aspects.

## 2e. Language as modeling system and exaptation

The Innenwelt is subjective; it is the modeling system not only species-specific to each variety of animal, but also intrinsic to each individual of whatever variety. But the Umwelt is objective, a public realm within each species yet between all individuals of that species and, to some measure (if never completely), public even across some species. The human Umwelt is first of all an animal Umwelt, a species-specific objective world, but it is based on a biologically under-determined Innenwelt or modeling system. This modeling system, the species-specifically human Innenwelt, Sebeok came to call<sup>18</sup> “language” in the root sense, in contrast to the common (mis)use of the term “language” to mean what is in reality the exaptation of language to communicate and to constitute *linguistic communication* as the species-specifically human communicative modality. I may mention that this distinction between language as a modeling system and language as a commu-

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<sup>18</sup> Sebeok 1984, 1986a, 1987, 1987b; cf. 1978, 1981, 1981a, 1981b.

nicaive exaptation also explains why Baer (1987: 203) said that, “from Sebeok’s biological vantage point”, the thesis “of the linguistic mediation of the world does not entail acceptance of the position that the linguistic model should dominate semiotic analysis”.<sup>19</sup>

This biological underdetermination of the human modeling system introduces into the Umwelt the “relation to itself” (or of “objects to themselves”), and by so doing presents the perceived objects as actually intelligible.<sup>20</sup> That is, the objects of awareness become, perceived as beings, susceptible of being investigated according to whatever intrinsic constitution they may have subjectively speaking (and this whether ultimately a being of the order of *ens reale*, *ens rationis*, or some mixture of the two as a socially constructed reality, such as the witches of Salem; for, remember, “being is said in many ways”). By this measure what was a closed Umwelt becomes “open”, not in the sense that the organs of sensation or perception are any different, but in the sense that the Umwelt becomes permeable to the physical environment explorable as an order of things that involves also physical structures that (unlike perceived objects) remain in some ways indifferent to the kind of animal perceiving it (if not *for* the animals perceiving it).

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<sup>19</sup> This is an important point I have developed elsewhere (Deely 1980; further in 1994); but here let me remark simply that, for want of understanding the semiotic context of linguistic communication, linguistic philosophy as it developed in the English-speaking world after Russell and Wittgenstein (early or late), which one would *prima facie* regard as a natural ally of semiotic development, proved on the contrary to be a natural enemy of semiotic understanding (Deely 2003: Part I).

<sup>20</sup> So we have from semiotics the answer to the question posed by Heidegger on the last page of *Being and Time* (1963: 437): “Why does Being get ‘conceived’ ‘proximally’ in terms of the present-at-hand *and not* in terms of the ready-to-hand, which indeed lies *closer* to us? *Why* does this reifying always keep coming back to exercise its dominion?” For Ready-to-hand is the manner in which objects exist within an animal Umwelt. Human beings are animals first of all, but they have one species-specifically distinct feature of their Innenwelt or modeling system brought to light in the postmodern context of semiotics Professor Sebeok, namely, the ability to model objects as things. Thus the human modeling system or Innenwelt includes the ability to undertake the discrimination within objects of the difference between what of the objects belongs to the order of physical subjectivity (“*ens reale*”) and what belongs wholly to the order of objects simply as terminating our awareness of them (“*ens rationis*”). Cf. Deely 2001d: 724–725.

## 2f. The species-specifically human Umwelt

I suggested to Sebeok, on a number of occasions, and in some extended correspondence we had on the point, that we semioticians ought to take a cue here from Edmund Husserl and the late-modern phenomenologists by calling the human Umwelt in its species-specific sense rather a *Lebenswelt*. While he sympathized with the suggestion and recognized the utility for a name for what distinguished the Umwelt in the case of the human animal from the Umwelt as common to all the other kinds of animals, his experience with the Nazis in the World War II period (an experience which was extensive) made him always associate the term “*Lebenswelt*” with the distasteful Nazi speech about “*Lebensraum*”, and by reason of this distasteful association in his own *Innenwelt*, as far as I could guess, Sebeok could never bring himself to accept “*Lebenswelt*” as a synonym expressive of the human Umwelt in its species-specific sense.

In any event, for purposes of our “manifesto”, I suggested along the above lines that Uexküll’s term “Umwelt” ought best to be translated as “objective world”, in contrast with the notion of the physical environment common to all life forms. Note that this idea of the physical environment common across the *Umwelts* is a species-specifically human hypothesis that, exactly as Thure von Uexküll reported,<sup>21</sup> “belongs to a realm which passes all sensoric conception”, even though, as Aquinas would insist, just such an environment is partially included, precisely objectively — as cognized or ‘known’ in the perceived world of objects — as something of which the animal is in a limited sense aspectually aware. I hope you can see in this extended context, now, why I proposed (and in my own writings have stuck to) this rendering of Umwelt as “objective world”: for the objective world is not opposed to the subjective world *tout court*, and in fact partially or aspectually includes something of that very subjectivity through sensation.

However, this extended context here provided existed at the time reported only between Sebeok and me, not even between me and the other collaborators on the manifesto manuscript, Thure von Uexküll in particular. Hence, when my proposal in written lines reached Thure via Sebeok, Thure rejected it vehemently and — as I recall the note of response passed on to me by Sebeok — almost with acrimony. At the time I was at my then-home in Dubuque, Iowa, and Sebeok was in

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<sup>21</sup> Thure von Uexküll 1987a: 7. Thure von Uexküll 1984 reads here: “belongs to a realm that goes beyond all sensory conceptions.”

New York for some professional affair. It was evening when I received his note which sided with Thure in rejecting out of hand my proposed translation for "Umwelt". I was furious. I picked up the phone at once and dialed Tom's hotel, and he happened to be in. "How can you take sides on this matter without even discussing it further?", I demanded to know. Tom, in his manner (it was a lengthy phone conversation), patiently pointed out to me that we are dealing here with Jakob von Uexküll's son, who has a right to be considered *primus inter pares* when it comes to how we should express his father's work, even in English; and that it was further important that we not let our collaboration founder on an unnecessary point, which even I, as a brash young professor then, had to concede. So we dropped the matter for the purposes of our manifesto, and, under the collaborative genius of Tom's guiding hand, the text came eventually to a successful conclusion. The manifesto stands to this day as a clarion call for a new paradigm and a new perspective, the paradigm and perspective proper and indigenous to the doctrine of signs, which I did not yet then see<sup>22</sup> as quintessentially postmodern. I have since come so to see the doctrine of signs as just that, in unmistakable terms — at least so far as philosophy is concerned within intellectual culture as a whole.

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<sup>22</sup> Cf. Deely 1982: 3, "Objectives": "All previous semiotic 'theories' [...] be they Greimasian, Saussurean, Peircean, Poinsonian, have come to the study of signs late in the day, on the basis of a thoroughly worked out system of concepts, a 'pre-existing philosophical paradigm'. To this preajacent paradigm, then, their subsequent notions of signification were referred and required to conform. The coming of age of semiotic as a perspective in its own right requires exactly the reverse. It can have no paradigm of philosophy given in advance. Beginning with the sign, that is, from the function of signs in our experience taken in their own right (semiosis), it is the task of semiotic to create a new paradigm — its own — and to review, criticize, and correct so far as possible all previous accounts of experience in the terms of *that* paradigm." Cf. "Conceptual Revolution" in Sebeok 2001: xix–xxiii.

### 3. “The Dominican tradition”

Over the years, right up to his last book,<sup>23</sup> Sebeok would occasionally refer to “the Dominican tradition” within semiotics. The reference always mildly annoyed me, especially as he would never explain it when asked (I tried) but afterward continued to insist on the reference in subsequent publications. This tradition, in his last enumeration of protagonists,<sup>24</sup> is the semiotic tradition stemming “from Aristotle, then, via Aquinas, Poinot, and Maritain,” extends through “engaged contemporaries like Herculano de Carvalho, Beuchot, Deely, and others.”

A Dominican tradition stemming from Aristotle seems a little odd; but it is true that Aquinas, Poinot, and Beuchot are Dominicans, and that I was one for four years. But what about Maritain, Carvalho, and “the others”? In any event, it is true that Aquinas cannot be well understood apart from Aristotle; that Aquinas and Poinot are by far the largest-looming figures in this pantheon; and that Maritain, who regarded Poinot as among his foremost teachers, was the greatest easily of the 20th century’s self-styled followers of Aquinas (the “neothomists”<sup>25</sup>). So the name Sebeok chose for this subtradition within his semiotic ecumenism is not without its justifiability,<sup>26</sup> even if it has puzzling aspects. And there is no doubt that, given the lineage Sebeok assigns, that this is the evolving standpoint from which I came to semiotics, to the reading of Uexküll, and to the interpretation of the expression “Umwelt”.

And, thinking from that point of view, it has always struck me as one of history’s ironies that Jakob von Uexküll, the great inconscient pioneer of zoösemiosis, took his original inspiration for the animal Umwelt, precisely a world of percepts without concepts (if we regard concepts as the species-specifically human products of *Vernunft*), from the Kantian theory of mind.

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<sup>23</sup> Sebeok 2001: xvii–xviii.

<sup>24</sup> *Ibid.*

<sup>25</sup> With the caveat entered in Deely 2001b: 342n200.

<sup>26</sup> And here I might note that a well-known German Thomist never mentioned by Sebeok, as far as I know, namely, Josef Pieper, made a central use of Uexküll’s Umwelt concept in one of his most famous books (Pieper 1998: 80–97, esp. 81–84).

In a wholly logical world, I thought, the study of the purely perceptual intelligence of animals might rather have been an inspiration for the jettisoning of Kantianism when it came to the philosophy of the human mind.<sup>27</sup> For the human mind is like the mind of any animal in consisting of a modeling system; but it is unlike the mind of any other animal — at least on this planet — in being biologically underdetermined in what it models, that is to say, in possessing “language” in Sebeok’s sense.<sup>28</sup> Hence the human *Innenwelt* can represent things not only on the basis of sensation and as sensed objects are perceptually given, but as intelligible as well, i.e., able to be investigated and studied on the hypothesis that they have an internal constitution or “essential structure” of their own which may look like nothing we have ever seen or could see with the eyes of our animal body.

A subjectively determined objective world which is that and nothing besides, nothing more, makes perfectly good sense within the framework of a Kantian philosophy of mind. Indeed, we may say that Kant did more to make that phenomenon, the animal *Umwelt* so far as sense-perception is concerned, thinkable than did any thinker before him. But, within that same framework of his philosophy, there is room neither for a universe of things in contrast to objects, nor for a Way of Signs leading “everywhere in nature, including those domains where humans have never set foot.”<sup>29</sup> Yet along a way of signs in just this sense is where semiotics leads us, and gives us the means integrally to explore. The choice is not between holding “that signs are nothing but rather dry and boring linguistic concepts that have to do only with syntax and grammar” or recognizing “the exciting fact that signs are in reality magic formulae whose creative power changes our world and ourselves” (T von Uexküll 1982: 12). To pose the matter in the terms of this either/or is already to have accepted the modern idealist/realist opposition as something unsurpassable; whereas semiotics has its

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<sup>27</sup> Consult “Jakob von Uexküll” in Deely 1990: 119–124; and compare the discussion of the relation of understanding to sense intuition in Poinset 1632a: Book II, Questions 1 and 2, and in Deely 2002.

<sup>28</sup> See n. 19 above.

<sup>29</sup> Emmeche 1994: 126; staying silent for the moment on the question over which Sebeok turned conservative, the question of whether semiosis is coterminous with the emergence of life, or whether there is not indeed a broader origin in which semiosis must be seen as coterminous with the physical universe *tout court*: see Nöth 2001.

point of departure in a standpoint superior to both. (Among the proto-semioticians,<sup>30</sup> Poinsoot was the first explicitly to point this fact out,<sup>31</sup> but of course his work in this regard was unknown till quite late in the 20th century, and it is not widely known even as we gather here in Hamburg today.)

#### 4. The postmodern synthesis in semiotics

We start out from the fact that things can be understood which can neither be sensed nor perceived without the understanding, such as the fact that Michael Miller in five days from today will become the titular Archbishop of Vertara. We start out from the fact that among the things which can neither be sensed nor perceived without the understanding are signs, in contrast to sign-vehicles. For I think it is not too much to say that the single most important upshot of semiotic developments in the 20<sup>th</sup> century has been the realization that, strictly speaking, nothing that can be seen with the eyes or heard with the ears is in the technical sense a sign, but rather and only a sign-vehicle. This sign-vehicle owes its being as such first of all not to anything in its physical, material, or subjective constitution<sup>32</sup> as much as to its place within a triadic relationship. It is this triadic relation which constitutes the sign *as such and as a signifying whole*, and that relation has this in common with all other relationships, triadic or not, namely: that it can be neither seen nor touched in its suprasubjective being as relation, but

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<sup>30</sup> Sebeok called “protosemioticians” the pioneers or founding figures of semiotics as such, that is, those thinkers who first undertook consciously (in contrast to his “cryptosemioticians”) the struggle to establish the essential nature and fundamental varieties of possible semiosis.

<sup>31</sup> Poinsoot 1632: Book I, Question 1, 117/18–118/18, esp. 117/28–118/9. See the discussion in Deely 1988.

<sup>32</sup> But of course physical constitution will be involved where it is a question of any natural signification, by reason of what Poinsoot analyzed as the irreducible element of “transcendental relation” which permeates the realm of nature and *ens reale*, just as ontological relation permeates semiosis whether involving *ens reale* or *ens rationis*.



only understood; so that the animals other than human use signs without the possibility of knowing that there are signs.<sup>33</sup>

Objectified things can be seen and touched. Objectified things can be related, and are perceived (granted, sometimes mistakenly) as related. And, if they are related in a certain way, perceived things — that is to say, rather, *objects* — can be seen to function as signs. But their *being related in a certain way* is what makes them appear as *signs*, not anything about their being as *objects*, or even as *things*. We *call* objects related in that certain way “signs”. But, if we are sufficiently sophisticated semiotically, we well know that what in ordinary language are *called* signs are in fact but *sign-vehicles*, and that what are signs in their very being are only the triadic relationships under which the sign vehicles occupy temporarily the position of “standing for” something other than themselves “to” some third, be it an organism or not, an observer or only some prospective observer under conditions not yet prevailing.

Now it is true, as Thure von Uexküll (1984: 187) says, that a sign “is a unit with several elements that are functionally related to each other and to the whole”, similar in this respect to cause and effect. But to say that these elements have none of them “any significance by themselves” is to go one step too far, for it erases the profound difference between conventional and natural sign. For the three elements involved in a given sign may themselves be subjective structures able to be objectified independently of the particular signifying. They will then become mere objects in their own right, signified, it is true, but not as sign-vehicle and interpretant in the case supposed. Yet, whether natural or conventional, a sign consists *as such* in a triadic relation whose elements or ‘parts’ are determined by their position and role within the relation: the one in the foreground of representing another than itself is determined to be the representamen or sign-vehicle; the one in the position or role of being the represented other is determined to be the object signified; and the one in the background of that object for or to which the other-representation is made is determined to be the interpretant. And yet further still, each of these three elements can shift place with the other, becoming then (so far as the signification is

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<sup>33</sup> This is why I have proposed “semiotic animal” on several occasions (most recently Deely 2003b) as the postmodern definition of human being, to replace the modern definition of *res cogitans*.

concerned) no longer sign-vehicle but object, or interpretant, etc., in the famous “semiotic spiral”.<sup>34</sup>

Yet, in the animal case, it is the natural sign (or ‘sign-vehicle’) that carries the burden of the signifying, not because *entia rationis*, mind-dependent relations of signification, are not involved (they are), but because the animal’s survival depends on getting right the manner in which the physical environment is incorporated into its world of objects, its *Umwelt*, when it comes to food, sex, and danger.

François Jacob, in a passage Sebeok was fond of citing, liked to point out that there is what I would call an “animal realism” which philosophers can ill-afford to ignore:

No matter how an organism investigates its environment, the perception it gets must necessarily reflect so-called “reality”<sup>35</sup> and, more specifically, those aspects of reality which are directly related to its own behavior. If the image that a bird gets of the insects it needs to feed its progeny does not reflect at least some aspects of reality, there are no more progeny. If the representation that a monkey builds of the branch it wants to leap to has nothing to do with reality, then there is no more monkey. And if this did not apply to ourselves, we would not be here to discuss this point. (Jacob 1982: 56)

Never mind for the moment Kant. Aquinas would say that the perception necessarily reflects so-called “reality”, i.e., something true about the world of things as constituting a physical environment upon which all living things depend (even though different ones upon different parts and in different ways), because in sensation the action of the sensible upon the sense guarantees that the material the perception has to work with is rooted in the reciprocal reality (the transcendental relation) of organism and physical surroundings. The ontological and triadic relations which turn all this physical interaction and subjective actions and reactions into a semiotic web<sup>36</sup> sustaining objectivity (which is the *Umwelt* of any given animal) come from both sides, from the animal mind and from nature, to the sole end of the animal surviving at the least, flourishing if possible. The animal cares not a whit if it be the sun that moves round the earth or the earth

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<sup>34</sup> Diagram in Deely 1985: 321; 2001a: 28; 2003: 164.

<sup>35</sup> Here precisely in the Latin sense of *ens reale*, the physical environment in its properly subjective being.

<sup>36</sup> To use the expression Sebeok 1975 fashioned from his reading of Jakob von Uexküll.

round the sun. We humans know now that the former relation is an *ens rationis*, the latter an *ens reale*. Neither can be directly perceived as relations (only the sun and stars and their apparent movement relative to the animal perceiving), yet both are functionally equivalent within the objective world of animals for purposes of environmental orientation. That is why animals can perceive related objects and sign-vehicles as objects, but they cannot come to know that there are signs; for signs consist strictly and essentially in relations of a certain kind, while relations of no kind can be perceived as such by sense. Yet what the Umwelt is above all is a lattice and network of ontological relations between organism and environment, elevating the latter to the level of the animal's awareness, and organizing it according to the animals need and desires, even hopes.

The environmental niche beloved of North American biologists is a physically reductionist conception by comparison to the Umwelt. Uexküll's work in biology provides the clearest proof yet of the error of nominalism in philosophy in denying reality to relations except as fashioned by human thought.<sup>37</sup> For if that were true, neither Umwelts nor animals could be in the first place.

## 5. Labyrinthine entwined issues yet to be resolved

My good friend Sebeok died with the issue unresolved between us as to whether semiosis is coextensive with or exceeds the biosphere.<sup>38</sup> Nonetheless, we were well in agreement, by that point,<sup>39</sup> that, as far as

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<sup>37</sup> For the details on nominalism so defined I must refer the present reader to Deely 2001b.

<sup>38</sup> Deely 2001a and 2001d.

<sup>39</sup> December 21, 2001, was Sebeok's last day. Just six months earlier, in the framework of the June 12–21 Imatra meeting of the Nordic-Baltic Summer Institute for Semiotic and Structural Studies, I had the privilege to make an oral presentation of my paper on Umwelt (Deely 2001), which had been written under the prompting of Kalevi Kull for his monumental Uexküll Special Issue of *Semiotica* (Kull 2001), to an audience of which Tom Sebeok was a member. In the months subsequent, I was gratified to have him refer several e-mail inquirers to me as an "expert" on the concept of Umwelt. I took the referrals less as a tribute to my German than as an expression of his satisfaction, for the purposes of the ongoing development of semiotics, with the articulation the concept had received in that paper and session.

the understanding of earthly life goes, and presumably life as well anywhere in the physical universe, “prospects for a viable comprehensive synthesis of the doctrine of signs, a new paradigm if you will, loom on the horizon in 2001 under the banner of *biosemiotics* (a.k.a. the Jakob von Uexküll ‘tradition’)” (Sebeok 2001: xviii). The advent of this paradigm, he continued,<sup>40</sup> “under the more restricted German label of *Umweltlehre*, that is, the study of modeling, was far from an epiphany. Quite the contrary, it took well nigh a century to season.” That century was the 20th century, modernity’s last. As we enter postmodernity’s first full century in the clear, this “fleshing out of a number of labyrinthine entwined issues” may be expected to occupy more and more of our intellectual culture as semiotics comes into its own, forming the center of gravity for the postmodern epoch of philosophy.

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<sup>40</sup> *Ibid.* xix. I take the liberty of replacing his semicolon after “epiphany” with a period, then capitalizing “quite”.

<sup>41</sup> The “second epsilon” mentioned on p. 304 of this work is a blunder, for the “first epsilon” in the Greek “semeiotic” is not an epsilon but an eta, thus: Σημειωτικ.

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### **Семиотика и понятие умвельта Якоба фон Юкскюлла**

Семиотика, т.е. наука, которую развивает изучение знаковых процессов, зависит (как и любая другая живая специальность) от содружества исследователей, которых объединяет признание и применение основных принципов, составляющих основу исследовательской работы. Эти принципы осваиваются прежде всего благодаря работам пионеров этой специальности, которые в свое время могли быть непризнаны, но впоследствии приобрели известность вместе с созреванием содружества исследователей, которые признают их своими. В ходе становления семиотики именно понятие умвельта Якоба фон Юкскюлла стало таким путеводным понятием для учения о знаках. В данной статье рассматриваются те пути развития, которые привели к тому, что концепция Юкскюлла заняла центральное место в современной семиотике.

### **Semiootika ja Jakob von Uexkülli omailma mõiste**

Semiootika, s.o. teadmiste kogum, mida arendab märgiprotsesside uurimine, sõltub (nagu iga teinegi elus eriala) uurijate kogukonnast, keda ühendab uurimistöö alus- ja juhtmõisteid moodustavate põhiprintsiipide

tunnustamine ja rakendamine. Need printsiibid võetakse omaks eelkõige selle eriala pioneeride tööde kaudu, mis ilmumise ajal võisid tunnustuseta jääda, kuid mis saavad rajavateks koos uurijate kogukonna küpsemisega, kes nad omaks kuulutavad. Semiootika küpsedes on Jakob von Uexkülli maailma mõiste osutunud just niisuguseks teerajajaks märgidoktriinile. Käesolevas artiklis vaadeldakse neid arenguteid, mille läbi Uexkülli kontseptsioon haaras oma keskse koha tänapäeva semiootikas.