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Umwelt, Biology, and Bio-Politics: A Foray into Uexküll's World


The juxtaposition of the subject’s goals and Nature’s plan also allows us to get past the question of instinct, which nobody can make sense of anyway. Does the acorn need an instinct in order to become an oak? Or does a bunch of osteoblasts work instinctively to form a bone? (Uexküll, 92)

There cannot be any philosophy of the individual and the exercise of thought cannot have any other outcome than the negation of individual perspectives. A basic problem is linked to the very idea of philosophy: how to get out of the human situation (George Bataille. *Theory of Religion*. Trans. by Robert Hurley. New York: Zone Books, 1992.)

It might be too much to state, as Bataille does, that philosophy’s “very idea,” that is to say its fundamental orientation or problematic, lies in an approach to the aporetic and the apophatic, in an erotic appetite for erasure, or in a libidinal drive to surmount the human situation. Too much for philosophy (or should I say too much for some philosophers?) perhaps, but not too much for the narrower and younger field of human/animal studies, which is self-consciously (and not always successfully) located and situated at this fraught intersection of limits. The theriophilic critique of human excellence and virtues, the aggressive pursuit of posthumanism, the appetite for new forms of liminal communication and collective action: all of these commitments are driven by a kind of anxiety about the lasting influence of anthropocentrism. Together we want to get out of being human, move past its limits and maybe more emphatically leapfrog over its liabilities and interspecies debts. An impossible task, yes, something like jumping over one’s shadow. But if what we want is a vision which disorients, undermines and deconstructs the human perspective, then we have no better place to turn than to the work of Jacob von Uexküll. Antihumanist philosophers from Heidegger to Deleuze have realized this, and some of the most challenging aspects of their visions represent a tracing/tracking of his congeries of animal concepts. For this reason alone, a new, clear, and compelling English translation of Uexküll is cause indeed for celebration. There are some potential concerns with aspects of Uexküll’s thought that
remain to be uncovered, as we will see, but Joseph O’Neil and the University of Minnesota press should be commended for making this text available and approachable to readers without a working knowledge of the text’s original German.

I. Life/spores. We can begin our review with Uexküll’s life, which was as broad-ranging and expansive as his work. Its arc can be described as follows: birth (1864) into an Estonian/German aristocratic family, study in Heidelberg, followed by work in Paris and then many years in Naples, followed in turn by the financial ruin of WWI and its aftermath, and finally, only late in life, settlement, stability, and indeed prominence in Hamburg until his death in 1944. The vision presented to us in the Foray into the Worlds of Animals and Humans was composed during the relatively early years of a center he founded, the Institut für Umweltforschung. The work of that research center bore the imprint of his leadership and ideas, representing an excellent example of “normal science” in the Kuhnian sense of the term. Unpacking and enumerating the aspects of that vision is difficult, and perhaps best done by means of words which are evocative of Deleuze and Guattari’s (Uexküllian) “becoming-animal,” that is, elemental orderings in vertical and horizontal space, a planar examination of mobile thought that operates in both a constellated or sporadic form (on one level), and in a more subterranean rhizomatic fashion (on another level).

Addressing the constellated/sporadic plane first, Uexküll’s project moves forward by means of particular examples, creating a tight focus around a multitude of non-human life forms. Uexküll’s tick is the most famous (and compelling) example, but he also addresses the lifeworlds of spiders and flies, hermit crabs and anemones, jackdaws and cats, molluscs and starfish, and so on. Each organism in its particular ecology or Umwelt receives a limited number of perceptual cues: the tick for example may live in a forest canopy full of birdsong, the sound and smell of rushing water, the abrupt rush of spring winds, but the only mark it attends to is the “smell” of butyric acid released by a proximate mammalian being. This “perception mark” (Merkmal) activates the release of the tick’s legs, which in turn allows it to drop onto the mammal that presumably moves beneath it. Uexküll’s term for this activation is “effect mark” (Wirkenal), which when activated erases the perception mark that set it off. This circuitry of perception and effect marks traces the outer boundary of animal life in its interdependent but contextually discrete instantiations. The animal’s Umwelt is this delimitation.

In another study that Giorgio Agamben considers at length, Uexküll considers the relationship of spider and fly: the spider does not and cannot “know” the fly in a
comprehensive objective sense, and yet the dimensions of the spider’s web are attuned in a delicate fashion to the proportions of the fly’s body. The trap that the spider sets is sensitive to the fly’s perceptual apparatus, moreover, even to the point of crafting its strands in such a manner that they become invisible to the fly’s eye. As Agamben comments in a chapter of his work *The Open*, “The two perceptual worlds of the fly and the spider are absolutely uncommunicating, and yet so perfectly in tune that we might say that the original score of the fly, which we can also call its original image or archetype, acts on that of the spider in such a way that the web the spider weaves can be described as ‘fly-like’” (Agamben 42). The circuitry of perception and effect marks turns out to be variegated and flexible enough to knit together the life processes of many beings, even above and beyond their individuated horizons of understanding. To say that the spider wills an innovation in web-making that consciously accommodates the archetype of the fly is to misunderstand its cognitive power; it is something like presuming that the tick wills an especially selective olfactory sense to attune itself to the mammals that pass beneath it. In both cases, there is an operative logic at work, and one that makes fascinatingly rapid adaptations, considering the constantly changing nature of biological forms, as well as the larger dynamic biosphere in which they live. This logic is one that emerges from within the formal life of interdependent organisms, and is meaningful because of that frame, but it gains its holistic sense from a larger and more encompassing principle. That principle, moreover, stands above and beyond human perception which is itself limited and constrained by means of its own *Umwelt*. This is a point to which we will return shortly.

**II. Rhizome.** We have already moved beyond the sporadic examination of constellated beings to the deeper question of meaning and morphogenesis. For Uexküll, any particular *Umwelt* is an elaborate and intricate construction of an inseparable unity, a holistic system of organism and world. Its emergence and elaboration is an organic logic that arises out of the living processes of the subject, in an avowedly meaningful expression of vitality. O’Neil’s new translation includes Uexküll’s essay *A Theory of Meaning*, which speaks in these terms by comparing two processes of agglomeration, ordering, and formation. Consider, Uexküll says, the “play of clouds in the wind,” which cohere into shapes and onto which we project certain images and meanings but in the end are nothing more than “the product of changing winds and strictly obey the law of cause and effect” (Uexküll 151). Consider in contrast, he says, the parachute form of the dandelion seed, or the fruit of the linden. Here the formal process of biological adaptation occurs as it were not from the outside, but from within. “In this case, the wind is not the cause of the development of form, as with the clouds, but rather, the forms are adjusted to the meaning factor ‘wind,’ which they utilize in different ways for
scattering seed” (Uexküll 151). What we call the living processes of the subject can in some sense be described as this form-giving movement in growth and adjustment, delimited by a complex choreography or score of interaction between organism and environment, or subject and object. If on the one hand the being in question does not and cannot hear or comprehend the composition as a whole, it is clearly not the case on the other hand that no music is being made. The multitude of processes at work operate and circulate symphonically. This is true at the microscopic level of tick and mammal, spider and fly, dandelion seed and wind, and it is also true at the biospheric level. Music is meaning, moreover, as Uexküll argues:

The question as to meaning must therefore have priority in all living beings. Only once it is solved does it make any sense to research causally conditioned processes, since the activity of living cells is directed by their self-tones (Uexküll 151).

This raises an important question, however, one situated at the intersection between epistemology and ontology. To be sure, Uexküll’s antihumanist, antidarwinian ecology wants to rise above the Cartesian prioritization of the (human) subject over the (animal/machine) res extensa. In doing so, however, we have to ask whether he replaces Descartes’ secular mathesis with a world in which the ecologic of every Umwelt represents a kind of hermetic “soap bubble” that seals-off consciousness from the so-called real world. In other words, if all consciousness is intentional, if every strand that connects subject to object is conditioned or structured a priori by “tones” of expectation, what happens to the possibility of an encounter of purity, immediacy, or full naïveté? Can the world be experienced without mediation? Uexküll seems to close off this possibility at the very end of his Foray, when he makes two assertions: first, when we transfer our study of Umwelten from animals to human beings, we find here as well proliferation rather than unity. When we attempt to coalesce or cohere the swarming, buzzing multiplicity of human worlds and reduce them to a single unitary sense, we find chaos and confusion. Nothing fits together. Viewed from one perspectival stance light has a particulate reality, whereas from another it exists as a wave. Only one of these realities can be true, and yet of course both are. And so on.

Uexküll makes a further point, however, which finds continuity, sense and meaning behind this anti-realist profusion of contradictions:

Robert Geroux  —  Unwelt, Biology, and Biopolitics: A Foray into Uexküll’s World
The role Nature plays as an object in the various environments of natural scientists is highly contradictory. If one wanted to sum up its objective characteristics, only chaos would result. And yet, all these different environments are fostered and borne along by the One that is inaccessible to all environments forever. Forever unknowable behind all of the worlds it produces, the subject – Nature – conceals itself (Uexküll 135).

So for Uexküll a unitary principle exists, a principle which we can speak of in shorthand as nature, or if one prefers, “Nature,” which the translator O’Neil leaves capitalized in order to emphasize two things, namely its subjective aspect – Nature is a subject above and beyond all particulated and particular subjects – and its unknowability/inaccessibility. Without question there is a quasi-religious thrust working here, a rhetorical emphasis that calls our attention to the meaning and importance of Nature in a particular way. This is an important point, and by way of closing, I want to say two things about this emphasis, the first being historical and the second being political.

III. Conclusion. First, this articulation merely reiterates an overdetermined aspect of the modern world, as well as a central part of the scientific context where it seems at first glance so alien and strange. The radical decentering of the human subject and the end of perceptual immediacy are as old as the Copernican revolution. They are overdetermined moreover by articulations in contexts as seemingly distinct as theology (Pascal’s notion of *deus absconditus*), political theory (Hobbes’ position on nominalism and the limits of language), and perhaps most emphatically, reflections on modern and contemporary art. The loss of immediacy and a corresponding awareness of multiple (and often inconsistent) forms of mediation are fundamental aspects of modern self-reflection; in a way, Uexküll’s work does the most straightforward thing possible: in its scientific anti-realism, it merely reminds us that a world of epistemological mediation exists for all beings. Humans and animals alike inhabit meaningful but distinct phenomenological environments.

Within the frame of this statement, however, we cannot avoid the question of religion. Emphasizing fragmentation, disunity, comprehensive disorder/chaos in nature is really nothing more than asserting (along with Saint Paul) that all creation is fallen. This is the second point I want to address. Uexküll’s emphatic reference to a Subject beyond the infinite plurality of subjectivities, as well as the priority placed on the unknowability of that Subject, these are without question remarks shaped and structured however indirectly by an appreciation of negative theology. This sensibility comes to us,
moreover, mediated through Uexküll’s formidable influence on a generation of philosophical readers, the most important and influential of whom was of course Heidegger. It is not difficult to engage in a reading whereby Uexküll’s vision is translated into a philosophical/political position of quietism (at best), or right-wing mysticism or messianism (at worst). In other words, a line can be drawn between Uexküll’s vision of Nature and Heidegger’s infamous (gnostic?) late words that “only a god can save us now.” This is a problem.

The problem is compounded when one digs deeper into Uexküll’s turn from theoretical biology and ethology to his positions on political topics. Without finding him guilty by association, he kept the company of unsavory characters: his resolute antiliberalism (no crime in itself) cleaved him to writers like the English Nazi sympathizer Houston Stewart Chamberlain, one of whose unfinished manuscripts Uexküll translated as Natur und Leben (1928). His antagonism towards Charles Darwin was only part of a more generally hostile orientation towards Anglo-American ethics and the capitalistic practice it underpinned. Untangling the conceptual threads connecting this critique to his theoretical biology is a large project desperately in need of undertaking; my sense is that we are at a very early stage in this process, comparable perhaps to the years just preceding works on Heidegger and politics. Geoffrey Winthrop-Young’s Afterword to this edition helps us here, but the evidence thus far is mainly inconclusive; it’s not that the “jury is out” on the issue of Uexküll and politics, rather the trial hasn’t really begun. We’re still hearing opening arguments. All the same, it’s not difficult to see the problematic direction of a description of a nation or Volk in terms that echoes the subtle, meaningful (and in the end, mysterious) description of subject to world in Uexküll’s understanding of Umwelt. It’s not difficult to imagine the construction of an organicist “biology” of the nation or even the state, and indeed this is the thrust of Uexküll’s Staatsbiologie (1920; revised 1928, 1933), which should be of special interest indeed to historians of antiliberal and antidemocratic political thought. So: Uexküll’s political vision remains (for this theorist at least) mostly uncharted territory; we can be sure, however, that the resurgence of interest in his compelling vision of an anti-Darwinist, antihumanist theoretical biology will lead to further studies in this direction. It will be interesting to see how these studies shape his reception and reputation. At this point, however, it’s hard to imagine a work or a writer more provocative and compelling, and more important to the field of human/animal studies.