

Kinds of Life: On the Phenomenological Basis of the Distinction between “Higher” and “Lower” Animals

Christiane Bailey

Department of Philosophy, Université de Montréal, 6536 St-Laurent, Montréal,
Québec, Canada H2S 3C6; christiane.bailey@umontreal.ca

*Drawing upon Husserl and Merleau-Ponty's phenomenological constitution of the Other through *Einfühlung*, I argue that the hierarchical distinction between higher and lower animals—which has been dismissed by Heidegger for being anthropocentric—must not be conceived as an objective distinction between “primitive” animals and “more evolved” ones, but rather corresponds to a phenomenological distinction between familiar and unfamiliar animals.*

For man, there can only be man. Animals, for Husserl, are variants of humanity.

—Merleau-Ponty, *La nature*

Introductory Remarks

Our conception and treatment of animals is deeply influenced by a common distinction between “lower” and “higher” animals.¹ Since this hierarchical distinction is obviously anthropocentric—that is, made in relation to the kind of life that is ours—many contemporary discourses in philosophy, ethics, and critical animal studies argue we should abandon distinctions between kinds of animal altogether. This popular reflex in our “antispecist” times is echoed in Heidegger’s analysis of animal life, in which he refuses to interpret animal behaviors through *Einfühlung* to avoid both anthropocentrism and anthropomorphism. However, I will argue this strategy closes from the start all possibility

1. I wish to thank David Morris and Kim Maclaren for organizing the *Inter-University Workshop on Animality* (Ryerson University, Toronto, April 2011) where I presented an abridged version of this paper, and Ted Toadvine for his inspiring lectures as our guest speaker. My gratitude also goes to two anonymous reviewers for their helpful comments and to Vincent Duhamel for helping me rehearse my ideas.

of ever understanding animals as others—as *Alter Egos*. Drawing from a phenomenological analysis of the constitution of others through empathy in Husserl and Merleau-Ponty, I suggest the distinction between higher and lower animals corresponds less to an “objective” divide between primitive and evolved animals than to a phenomenological distinction between familiar and unfamiliar animals. This distinction is between forms of life in which we spontaneously perceive meaningful expressions and animals whose lives are so estranged from our own that we cannot immediately understand them. Speaking of “familiar” and “unfamiliar” animals rather than “lower” and “higher ones may help us acknowledge the fact that our understanding of others is grounded on our being-with them and therefore is not a rigid, all-or-nothing phenomenon. Belonging to the very nature of intersubjectivity is the fact that strange forms of life may become familiar ones, precisely through our gradual acquaintance with them. This “anthropomorphic” feature in our understanding of other animals that makes us distinguish sharply between kinds of living being is less a prejudice we should try to eliminate of than a structure of our consciousness of which we should be aware.

Pre-Scientific Reflections on Animals

We all come into a world already inhabited, not only by fellow human beings or perplexing strangers, but also by a multiplicity of animals. Although I was born in a house full of cats and dogs, I learned about other animals, the wild ones, or those raised in farms, like other children—through books and television. Probably like them, I was not aware that earthworms and flies were animals until this was taught to me. Even now, when I speak of animals, I very rarely think of those lizards, snails, and bees that were Heidegger’s favorite examples of animal life. Is there any truth, any validity in this pre-scientific distinction between kinds of animals? Why do I make such a sharp distinction between chimps and bees, between dogs and snakes? Is this *difference in kind* between those animals merely a reflection of my own tastes and values? Do these distinctions tell more about myself than about the animals themselves? If such was the case, I should be able, from a rational standpoint, to get rid of this prejudice and realize that their lives merely differ in degree from one another. But even now that I *know* insects too are animals, I do not usually think of beetles and cockroaches as animals. Furthermore it would seem strange or awkward to say that a dog is an animal *in the same way* an ant is. In our ordinary understanding, they occupy completely different planes of being, even though “a scientific stance” will always remind us that they are all animals, that *we* are all animals.

The *absolute* validity of this truth would greatly simplify matters. I could then know “what it is like” to be an animal because, in fact,

I am one. To this, Husserl would reply that the only knowledge of what being anything is like necessarily comes from myself. Thus, I can probably say I know what being a twenty-first century, French-speaking Canadian woman is like. But can I say I know what being a human being is like? To an enquiring cockroach or a philosophy-fond bat, perhaps I could. But there are already enough ways to be human to make this problematic. Do I know what being an Inuit is like? Can I have the faintest idea of what it is like to be blind? Or insane? These are all ways of being human, and yet I cannot even begin to understand these lives from the inside. Nevertheless, there must be something it is like to lead these lives. How do I know that? Is it because they speak? Speech deprivation has always been a key element feeding the belief that animals lack any interiority. But if Heidegger is right to argue that assertion or propositional speech (*logos apophantikos*) is a *derivative* mode of language, should not this principle be applied to men as well as animals? The fact that “the explicitness of assertion can be absent does not justify our denying that there is any” because “articulation lies *before* our making any thematic assertion about it” (Heidegger 1986, 149 [1962, 190]).² In *Being and Time*, Heidegger argues that understanding is already expressed and articulated in behaviors and gestures. For instance, to sew a button back unto a coat is an articulation of my understanding of the thing *as* needing repair. Many animal behaviors are meaningful and intelligible in the same way human behaviors are. Do we not understand something about animals *by simply looking at what they do*? A dog chasing a cat is not an unintelligible situation, an event like any other in the push-and-pull domain of physics, but something we immediately perceive as meaningful: by chasing the cat, the dog articulates a wordless understanding of the fleeing animal as something *to-chase*. When I see animals doing something, I understand something of their own grasp of the situation, a fragment of their world. Of course, I can be wrong; I can fail to understand what they do, but the same remains true with human beings. I am no doubt better at understanding other human beings than other animals, but the decisive fact is that animals, or at least *some animals*, are perceived as other ways of being-in-a-world. They do not merely belong to the nature to be explained but belong to the space of understanding.

On the Borders of Explanation and Understanding (Dilthey)

When distinguishing between things we explain and things we

2. Heidegger 1986, 149 (1962, 190): “If the ‘as’ is ontically unexpressed this must not seduce us into overlooking it.” Translations from French and German are my own unless an English translation is cited.

understand, one can recall Dilthey's famous principle: "we explain nature and understand life."³ Where do animals fit in this partition between the *explanation*, grounding the natural sciences, and *understanding*, which is the basis of the so-called "human" sciences (*Geisteswissenschaften*)? Do we *explain* animals or do we *understand* them? In traditional hermeneutics, the life we understand—the life that is intelligible—is psychic life and its various cultural manifestations.⁴ Of animals, therefore, there would be only causal explanations. But is it so obvious that "psychic life" means only human life? Is there not a form of understanding of animals, precisely in Dilthey's sense? He defined *Verstehen* as "a process through which we perceive something internal" on the basis of expressions of life (1924, 318). Do we not perceive expressions of lived experiences (*Erlebisse*) in animals as well?

The answer will differ according to the animal in question. If I think of *protozoa*, of very primitive animals, I will probably agree that there is no genuine *understanding* of their behavior: their way of being seems so remote from our own that they do not immediately make sense to us. I do not even know what should count as expression in a snake or a bee; much less could I identify the meaning of those expressions. Is the snake threatening me? I don't know. For all I know, he could as well be trying to seduce me. On the other hand, if I think of higher animals, like dogs and chimps, one cannot simply ignore *the fact that we do often understand them*. After all, as Merleau-Ponty says, "there are ways in which animals behave that are intelligible [*compréhensibles*]" (1994, 220). Although this may not be well-known, Dilthey himself acknowledged, earlier in his career, that we do understand animals or, at least, some animals. In *Ideas about a Descriptive and Analytical Psychology*, he enquires about "the knowledge of the mental life of animals" and claims that "our understanding [*Verständnis*] of vertebrate animals, which possess the same fundamental organic structure, is, naturally, relatively the best that we have of animal life" (1924, 199 [1977, 90]). Dilthey therefore used to think that animals were endowed with some form of psychic life, and the question was only the extent of our effective access to it. Of insects like bees and ants, he claimed that their radically different forms of life made all understanding virtually impossible:

Their organization which differs extremely from ours makes it extraordinarily difficult for us to interpret their bodily expressions; undoubtedly these expressions correspond with an inner life that

3. Dilthey 1924, 144 (1977, 90): "Die Natur erklären wir, das Seelenleben verstehen wir."

4. "Life" (*Leben*) or "psychic life" (*Seelenleben*), for Dilthey, means human life: "In the human sciences, I confine the term 'life' [*Leben*] to the human world." (Dilthey 1927, 228-9)

is very strange to us. Here all possibilities to enter a large psychic domain therefore fail us; this is a totally strange world for us. (ibid.)

According to Dilthey, the dissimilarity between the lives of lower animals and our own makes any understanding difficult or impossible. And *because* we share a “fundamental common structure” with higher animals, we can understand something about their inner life. However, if it is the relative proximity with our own kind of life that is the decisive criterion to determine which animals will be called “higher” and which “lower,” what assures us that we are really talking about animals themselves, and not merely about ourselves, about our own ability to relate to different kinds of life? In parsing between animals that are intelligible and those that are not, am I saying something about the extent and the limits of *their* understanding or only talking about the finitude of my own understanding? If to acknowledge an understanding *of* animals means at the same time to acknowledge an understanding *to* animals, then in saying that some animals are more difficult to understand than others, I must therefore imply *that there is less to understand in some animals than in others*. This seems to ground all properly hermeneutic understanding: what can be understood is *understandable*. I cannot *understand* thunderstorms, but only *explain* them. I do not understand plants, and I do not think that I should try, because there does not seem to be anything *to understand* there. They do not seem to live in a space of meaning, in a world in Uexküll’s sense.⁵

Anthropocentrism and the Problem of Hierarchical Distinctions between Living Beings

This brings up the hard problem of *projection*. Can I understand animals more akin to me merely because I can effortlessly project my own categories, feelings, beliefs, and intentions onto these animals? Is all understanding of animal life anthropomorphic? As we know, it is precisely in order to “prevent ourselves from ‘empathetically’ projecting our own feelings onto animals” (1995, 197) that Heidegger will exclude higher animals from his analysis of animality:

In order now to bring the peculiar character of behavior into view, we must take our *methodological point of departure* from a consideration of those forms of behaviors which are more remote, with respect to their consistent and intrinsic character, than those forms of comportment displayed by the higher animals that seem to correspond so closely to our own comportment. We shall therefore consider the behavior of

5. “The plant’s house does without the nervous system; it lacks the perception and effect organs. As a consequence, there are no carriers of meaning for the plant, no functional circle, and no effect marks” (Uexküll 2010, 146).

bees. (Heidegger 1995, 241; emphasis added)

Explicitly *because* of the close similarity between the behavior of higher animals and our own, Heidegger will focus his study of the essence of animality on animals that are most foreign to us in order to show that there is an abyss (*Abgrund*) between human existence and animal life.⁶ Before criticizing Heidegger, we must see that there are good reasons to start with animal species most different from our own. First of all, Heidegger's analysis aims at uncovering *the essence of animality*, and any statement of essence must hold true for "*all animals, every animal.*"⁷ Second, Heidegger wants to avoid an anthropomorphic account of animal life; he wants to uncover life as *a way of being distinct from human existence*. To focus on animals radically foreign to us is the safest way to avoid "misleading and premature psychological interpretation" of animals (1995, 197). Thirdly, Heidegger not only wants to avoid the pitfall of anthropomorphism, but also that of anthropocentrism, which leads us to divide animal life between "higher" and "lower" animals, a distinction dependent on an animal's relative proximity to human beings.

The problem with Heidegger's account is not his *methodological* bracketing out of higher animals, but rather the fact that these animals, whose behaviors "correspond so closely to our own comportment," will never come back in to the equation. Hence, Heidegger's radical conclusion of an abyss between animals and humans. Taking insects as lode-stars of the analysis concerning the essence of animality will inevitably orient the inquiry toward instinctual behaviors, leaving aside phenomena such as animal learning and intelligence, because *instinctual*

6. Even if, at first, the main thesis according to which "the animal is poor in world" may seem to point to a difference of degree, Heidegger explains clearly that the animal's world-poverty is not a "hierarchical evaluation" and "allows no evaluative ranking or assessment with respect to perfection and imperfection" (1995, 194). Being poor does not mean having less, but "being poor means being deprived [*Entbehren*]" (1995, 195). The animal's world poverty (*Weltarmüt*) must be understood as a deprivation of world (*Weltentbehren*)—although this deprivation is not of the same nature as the not-having-a-world of rocks and other inanimate objects.

7. Heidegger is careful to note that "it is not a statement of essence because it holds true for all animals; it holds true for all animals because it is a statement of essence" (1995, 186). We could go as far as to say that the thesis must hold for all living beings, including plants (but excluding men, of course) because Heidegger repeatedly says that he is enquiring about "*the essence of life in general*" (1995, 207) and that life is "the kind of being that pertains to animals and plants" (1995, 179, 188, and 191). On the reduction of animals to the ontological status of plants in Heidegger's 1929-30 lecture course, see my paper "La vie végétative des animaux" (2007).

behaviors are precisely highly stereotyped behaviors. Could Heidegger's analysis have been any different if he had adopted a dog or any so-called higher animals as the spokesman of animal life? He would then have had to inquire about individual development, and therefore about memory, experience, and temporality. This could have led him to speak of animals not only through biological features, but also through biographical or individual ones. Heidegger admits that his analysis of animal life is "incomplete" because he "deliberately avoided" the question of the temporality, of the individual development [*Bewegtheit*] of animals because "birth, maturing, aging, and death all too obviously remind us of the being of man, which we recognize as being historical" (1995, 265–6). As Gadamer once said, "the being proper to animals is not that of a particular *Da-sein*, but that of the species. It is the species that is 'there' for an animal" (2002, 80). This is easily said when we have *deliberately* left aside the question of the animal's *Bewegtheit*:⁸ once the question of the individual development of animals has been cautiously excluded, animals cannot but appear as being the rigorous representatives of their species, as having no individual history.

The Necessity to Distinguish between Kinds of Life

Comprehensiveness is obviously not expected in a philosophical inquiry aspiring to uncover "the essence of animality," "the essence of life *in general*," but Heidegger's essentialist approach implies that we can say something ontologically relevant about living beings in general, something true of both animals and plants, but not of human beings. Aristotle already underlined insuperable difficulties in such an undertaking. Aiming to define the essence of life in his *De Anima*, he soon realized that "life" is understood in multiple senses, and that we cannot give any satisfactory definition of the essence of life *in general*. Of course, we can define life by the nutritive soul that is common to all living beings. Although valid, such a definition relying on the lowest common denominator is unsatisfactory because plant life (i.e., nourishment, growth, reproduction, and decline) does not properly define the essence of the soul.⁹ What Aristotle teaches us is that any

adequate account of life must necessarily distinguish between *kinds of life*.

Heidegger's refusal to distinguish between types of living beings

8. The notion of *Bewegtheit* is an important concept in Heidegger's earlier work where life mobility (*Lebensbewegtheit*) reveals itself as a concerned mobility (*Besorgensbewegtheit*). See Heidegger 2002a, 115–117.

9. "The living seems to differ from the inanimate mainly by two things, by movement and perception" (Aristotle, *De Anima*, I, 2, 403b25–27).

in his quest toward the essence of life is, as we have said, justified by his conviction that such hierarchical distinctions would be inadmissibly anthropocentric. Merleau-Ponty expresses a similar concern: “we cannot conceive in a hierarchical way the relationships between different species or between animal species and man” (1994, 375). In their common refusal of hierarchical distinctions between animals, Merleau-Ponty and Heidegger both explicitly follow Uexküll, who argued that speaking of lower and higher animals implies, from an evolutionary standpoint, that some animals would be more “evolved” than others. For Uexküll, any animal species was as “perfect,” as splendidly adapted to its environment, as any other (Merleau-Ponty 1994, 224; Heidegger 1995, 194). However, the implications of this shared thesis will be very different in Heidegger and Merleau-Ponty. For the former, a refusal of hierarchical distinctions leads to the idea that all animals merely differ in degree from one another, whereas Merleau-Ponty argues that “there are *qualitative* differences” (1994, 375). In this respect, Merleau-Ponty is closer to Uexküll than Heidegger. Uexküll’s stroll through the enviroing world of the most “primitive” or puzzling animals revealed fundamental differences between *types of living beings*.¹⁰ Some animals seemed to him so decentralized that he described them as being mere “reflex republics”:

Sea urchins have a great number of reflex persons, which perform their reflex task without central direction, each on its own. In order to make the contrast of animals of this structure to the higher animals more clear, I have coined the sentence, ‘When a dog runs, the animal moves its legs. When a sea urchin runs, its legs move the animals.’ (Uexküll 2010, 76; Merleau-Ponty 1994, 222)

This famous quote reveals that Uexküll saw essential distinctions between kinds of animals. Any animal, however “primitive,” lives in its own *Umwelt* or “significant surrounding,” but only those endowed with a central organization create an *Innenwelt*, an inside world. Merleau-Ponty recalls this fundamental distinction between kinds of animals, insisting that, even though lower animals are already organized forms of life, they do not have “within their organism a counterpart [*une réplique*] to the exterior world” (1994, 224). Lower animals have a “cohesion with their world” with which they form “a closed unity,” but with higher

10. Even though Uexküll is often associated with the idea that “living is sense-making,” he did not speak of signification (*Bedeutung*) in reference to all living beings because “there are no carriers of meaning for the plant”; it is “immediately immersed” in its environment and these relations “are *completely different* than those of animals to their environment” (Uexküll 2010, 146). On plants and sense-making, see Thompson 2007, 153–57.

animals, an entirely new phenomenon occurs; the construction of a counter-world (*Gegenwelt*), a mirror-world (*Spiegelwelt*):

At the level of higher animals, the *Umwelt* is no longer a closing-off, but rather an opening. The world is possessed by the animal. The exterior world is ‘filtered’ by the animal which, because of a discrimination of sensory data, can respond to them by fine actions, and these differentiated reactions are possible only because the nervous system is geared like a replica of the exterior world (*Gegenwelt*), as a “duplicate,” a “copy.” (1994, 225)

Merleau-Ponty is here describing the creation of an inside and an outside—the “apparition” of an invisible—within animal life itself, a move which also suggests some animals would be deprived of an “invisible inside.” When and where does an *Umwelt* give rise to an *Innenwelt* and a *Gegenwelt*? The question is complex. For Uexküll, this gain coincided with the possession of a central nervous system, but modern biological research shows things may not be so simple.¹¹ One cannot even rest assured that, given all relevant empirical data, we could determine exactly when life implies inner life. “Ultimately,” as the early “psychologist” Dilthey said, “we do not have the means to state where psychic life ends and organized matter without it starts.”¹²

Apperception of the Other or Seeing the Invisible: The Question of *Einfühlung*

Even if we cannot determine exactly where psychic life stops, we do know that some animals have an “invisible inside.” How do we come to know this? Merleau-Ponty’s answer will be Husserl’s: through *Einfühlung*. Uexküll claimed that empathy is useless in biological studies because objective study of animals as subjects is, in fact, possible. By looking at the anatomical structure of an animal and at its responses

11. We used to think of invertebrates (which represent 95 to 98 percent of all animals) as being “lower animals” because they lack backbone and a central nervous system. But we now know some of them have a highly complex nervous system even though it is not centralized. Octopuses are the most widely known example. Although the intelligence of cephalopods remains mysterious because it works along fundamentally different lines than our own (much of the “processing” is done in ganglia distributed in their body and not centralized in a brain), ethical committees in Canada and the EU regulate their use in research and testing because of their alleged cognitive abilities. To this end, octopuses and other cephalopods are sometimes regarded as *honorary vertebrates* in order to be protected against acts of cruelty (Edelman et al. 2005; Mather 2008; Nosengo 2011).

12. Dilthey 1924, 199: “Endlich haben wir auch keine Hilfsmittel festzustellen wo seelisches Leben endige und organisierte Materie ohne ein solches bestehe.”

toward various features of its environment, we acquaint ourselves with the “world” in which the animal lives. No empathy is involved—no transposition of myself into another—because meaning-carriers (what counts as a prey, a mate, etc.) are given in the observation of its sense organs and its behavior. Despite Uexküll’s claims to have always kept empathy at arms-length, Merleau-Ponty would say that, without any warm feelings involved, Uexküll could not help but practice *Einfühlung* toward animals. Without empathy, no subject could be discerned anywhere, and Uexküll would never have discovered that “between the situation of the animal and his movements, there is a meaningful relationship” (Merleau-Ponty 1994, 230). Any radical distinction between behaviors and mere physiological processes already implies empathy. For Merleau-Ponty, “whether we know it or not, we practice *Einfühlung* toward animals”: “any zoology supposes from our part a methodological *Einfühlung* of animal behavior, with the participation of the animal in our perceptual life and the participation of our perceptual life in animality” (1994, 375).

Merleau-Ponty’s *methodological empathy* should not mislead us here. No reasoning, no inference is implied, but rather a perception—or, better, an *apperception*. Never given in direct perception, the other’s interiority is nonetheless *given somehow*. Husserl’s notion of “analogical apprehension” is a way to capture the fact that our apperception of another subject’s lived experiences is *in some way* mediated, without being the product of “an inference” or “a thinking act” (Husserl 1991, 111). The apprehension of another lived body is, for Husserl, “a kind of assimilating apperception” not to be confused with “reasoning by analogy [*Analogieschluss*].” There is, properly speaking, no direct access to the lived experiences of animals or other men, no direct access to what Merleau-Ponty calls “the invisible.” This, however, does not mean the invisible is a construction of mine, the result of some form of inference, of analogical reasoning. I do not *suppose* there is an “invisible” inside animal bodies; I perceive it. Even if Husserl often describes *Einfühlung* as a spiritual relation between subjects, a communication from mind to mind, it is probably better to speak with Merleau-Ponty of a communication *from body to body*. Empathy should not be conceived as an event arising from an act of imagination, but rather as an event arising *from a passive experience* of the other’s lived body.¹³ Such an event is grounded in a coupling (*Paarung*) of lived bodies, an association process

13. Natalie Depraz, a French philosopher who has translated many of Husserl’s texts on animals, distinguishes kinds of empathy: (1) A passive association of my lived body with yours; (2) An imaginative self-transposal in your psychic states; (3) An interpretative understanding of yourself as being alien to me; (4) An ethical responsibility toward yourself as a person (2001, 171).

that occurs “before” any consciousness of an I and a You. Subjectivity is from the very beginning *intersubjectivity*, or, as Merleau-Ponty would put it, *intercorporeity* (1994, 341).

Bracketing the Human-Animal Difference: Animals as Alien Alter Egos

For Husserl and Merleau-Ponty, the notion of a lived-world (*Lebenswelt*) that is always a shared-world (*Mitwelt*) applies not only to men, but also to animals. Meditating about intersubjectivity, Husserl asked how a solipsistic Ego could encounter someone else, anybody else, “in a way in which the other has not yet attained the sense ‘man’” (1991, 109). Bracketing every certitude, phenomenological reduction provides a perspective in which the human-animal distinction rests open and undecided. The world, says Husserl, is not only given as physical nature, but also as psychophysical world: “In it we find animals and human-beings given objectively, we find consciousness objectively tied to their objectively experienced natural lived-bodies” (1966, 268). At such a stage, what lays in front of me is merely a corporeal, animated body, a body deprived of Ego. *Only when this body moves itself* do I come to perceive it as “an *analogon* of my Ego” (1989, 168). As soon as an animal moves itself, “the future comes before the present” says Merleau-Ponty, “a field of space-time has been opened: there is a beast there; the space in question is inhabited, animated” (1994, 206).

Even at this stage of the *epoché*, the zoo-anthropological distinction remains undecided. Nothing tells me whether this *Alter Ego* is man or beast. *Animalia*—animals in the largest sense—are “objectivities of a particular kind,” objectivities inhabited by subjectivities: “I apprehend them as Bodies [*Leiber*], that is, I feel by empathy that in them there is an Ego-subject” (1989, 164).¹⁴ One cannot help but see some visible and sensible things as having a hidden side, not merely in the sense that one could circumnavigate them to peek at their bunny tails, but in the sense that there is an invisible dimension to them, *un creux*, not “constituted by our thought, but lived as a variant of our own corporeality” (Merleau-Ponty 1994, 338). The concept of “Ego-subject” should not confuse us; Husserl is here still speaking of *animalia* because “even the beast has something like an egoic structure”: “Beasts are subjects of a conscious life like us. Through such a conscious life they have in a certain way also a ‘life-world’ as their own” (1973b, 177/1995, 194).¹⁵ Neither subjectivity

14. Husserl refers to animated bodies as *Animalia* and to animals other than men as *Tiere*, beasts. *Animalia* are “primally present Corporeal bodies with appresented interiority.”

15. References of this type refer both to the original language version and the French translation of this text. English translations are my own. Husserl 1973b,

nor intersubjectivity is thus proper to human beings because, like us, “animals understand each other mutually”:

Animals of a species have their own mode of being-for-another and of being-with-another . . . They are in empathetic relationships and understand each other, they are known to each other by instinct and by experience—we understand them, we have experience of them in this way, at least when it comes to “higher” animals. (Husserl 1973a, 623/1995, 215)

The scare quotes on “higher” show Husserl was well aware this denomination is relative to our human predicament. In his writings on animals, a self-conscious anthropocentrism is at work. Whereas Heidegger thought the essence of animal life should be uncovered by considering animals as remote from human life as possible, Husserl thought we should start with the familiar and proceed toward the unknown. In our everyday experience, we do not encounter animals as “estranged living beings,” or “merely living beings” as Heidegger puts it,¹⁶ but rather “as cattle, as horses, as swallows, etc.”:

As men, we experience animals first as being there with us in our familiar surrounding world and as being dangerous, or at times dangerous, as being excited or violent, etc. or as harmless or friendly. Then, we understand animals in their being-together. Of course, we first find the generative experiences and instincts in us and, from there, we understand, or think we understand, how the animals live generatively together. . . . But no matter how we expand our experience, men and beasts, men of different races, animals of different species, are there from the very beginning in the world that is for us and belong to the world that is given to us in the respective modes of familiar and foreign, and thus the world of animals . . . is always already outlined. (Husserl 1973a, 623/1995, 215)

The world of animals is sketched from the very beginning. To borrow Heidegger’s terms in a way he would surely find objectionable, not only is *Dasein*

always-already a being-with others (*Mitdasein*), but also a being-with

177: “Auch das Tier hat so etwas wie eine Ichstruktur . . . Tiere, animalische Wesen, sind wie wir Subjekt eines Bewußtseinslebens, in dem ihnen in gewisser Weise auch ‘Umwelt’ als die ihre in Seinsgewißheit gegeben ist.”

16. The expression *Nur-Lebenden*, merely alive (1986, 346), not only reveals that Heidegger refuses to distinguish between kinds of animals, but he goes as far as refusing any ontologically relevant distinction between kinds of life—animals or plants (1995, 179, 188, and 191).

other animals.¹⁷

Husserl even went as far as asking himself why he called some animated bodies animals instead of men: “But we must first ask: why do I call them beasts and why do I distinguish them from men? Perhaps because of their completely different type of living corporeality?” (1973a, 622/1995, 214). However different their corporeality might be, animals are given as other ego-subjects, as having a conscious life [*Bewußtseinslebens*] like mine. How do I get to know this? How do I know that animals as outwardly different as lions and whales have “a conscious life like us”? Husserl’s answer will also be Merleau-Ponty’s—on account of my own lived body: “This we know by the perception of the animal body that is ours” (1994, 270). Analogical apprehension of others is not constructed, not the consequence of a reflection; rather, I perceive others as having “a perceiving side”: “I perceive others as perceiving” (271). This is only possible because I myself am a perceiving being; “it is because I perceive that the Other is possible for me as another being perceiving the same ‘tangible’ as me” (287). My own perceiving and moving body is thus the condition of possibility for any other perceiving and self-moving body. Once we grant that our body is “the measurement of the world,” *un étalon des choses* (279), we cannot lure ourselves with any so-called objective account of animals. Without this primordial *Einführung*, no animal could stand out against the biophysiological fabric of the world.

The Other as a Variation of Myself; the Animal as a Variation of Humanity

We are now in a better position to understand the meaning of Husserl’s strange principle according to which “for man, there can only be men; animals are a variant of humanity.”¹⁸ Animals are variants of humanity the same way other men are variations of myself. Or rather, animals are *variants of variants* of myself, because their lives are apprehended through empathy in a *derivative* sense: “we meet animals in our life-world through an empathy which is a resembling modification of an inter-human empathy.”¹⁹ While human beings are attained through “intentional modifications” or variations (*Abwandlungen*) of myself, abnormal ego-

17. In his 1929–30 lecture course, Heidegger says that, even though there could be something like a “going along with (*Mitgehen*)” animals, there is no being-with (*Mitsein*) animals. This should go without saying because being-with is an existential structure of *Dasein*, which means—at least for the Heidegger of *Being and Time* and beyond—man.

18. Quoted by Merleau-Ponty (1994, 110–1).

19. Husserl, Ms. C 11 III, 15–16: “Die Tiere finden wir in unserer Welt vor durch eine Einführung, die eine assimilierende Abwandlung der mitmenschlichen Einführung ist” (cited in Depraz 2001, 175).

subjects are attained through “privative modifications” of myself. According to Husserl, I need to “cross out” aspects of my experience to lay hands on an alien subjectivity. This derivative status is proper not only to animals, but also children, madmen and strangers. All of them are part of this select club Husserl calls the “abnormals”—alien subjectivities requiring a privative methodology. Husserl’s approach is based on the principle according to which “abnormality must first be *constituted* as such; and it can do so only on the basis of an intrinsically antecedent normality” (1991, 125):

Among the problems of abnormality, the problem of non-human animality and that of the levels of ‘higher and lower’ brutes are included. Relative to the brute, man is, constitutionally speaking, the normal case—just as I myself am the primal norm constitutionally for all other men. Brutes are essentially constituted for me as abnormal variants of my humanness. (1991, 126)

At first, Husserl’s claim according to which animals are variants or variations of humanity seems to merely have an epistemological status—he wants to underline the limitations of our understanding. However, he seems to construe this claim as possessing real ontological value (i.e., the distinction between layers of consciousness will amount to a distinction between kinds of life). Consciousness-stratification thus becomes the guiding thread to the ontology of life. Like Aristotle, Husserl distinguished layers or strata (*Schichten*) covering each other: the plant lives only by pulsion (*Trieb*) and is “deprived of psychic layer.”²⁰ Animals also live through “egological acts,” but lack “the layer of theoretical thought,” man’s prerogative. Since upper layers presuppose the lower ones, man—as a living being endowed with animal Ego and rational mind—will have all layers. Being the most complete or perfect of animals, man represents the measure by which other intentional layers or other souls can be understood. Husserl knew this stratification of consciousness brought us back to the ancient doctrines of the soul:

Notwithstanding the undoubtedly essential unfragmentability [of the flux of consciousness], there exists, on the other hand, a certain partition of the soul, namely, a distinction between strata in the soul, corresponding to strata of consciousness. Higher levels can be missing, and then the signification of the soul is quite different, as occurs for example, in the case of the soul which is constantly sleeping and in which no cogito is accomplished. Another example is the soul of the brute animal, in which the stratum of theoretical thought in the

20. For Husserl, there is “a certain division of the soul, a distinction between psychic layers [*Seelenschichten*] which corresponds to layers of consciousness [*Bewußtseinschichten*]” (1989, 134).

pregnant sense is lacking, etc. Phenomenology convinces us that the ancient doctrines of the “parts of the soul” and the kind of soul actually contain meaningful problems and, what is more, phenomenological problems. (Husserl 1989, 134)

As we know, Heidegger will criticize this view of man as “a compound of body, soul and mind [*ein leiblich seelisch geistige Einheit*]” (1986, 48). This would precisely be Scheler’s fundamental mistake: “his conviction that man is the being who unites within himself all the levels of being—physical being, the being of plants and animals, and the specifically spiritual being” (Heidegger 1995, 192).

The Animal as Radical Other: Roadmap to a Wordless Zoology

For Heidegger, man is not the recapitulation of all living beings, but *another* mode of being. Conversely, animal life is not a variant of ours, an impoverished form of existence, but a mode of being *essentially different from our own*. Approaching animals in this way would allow us to respect their alterity, their radical otherness, instead of considering them as defective forms of humanity. Animals would be, as Françoise Dastur puts it, “the Other *par excellence*,” “the Other with which *Mitsein* is impossible” (1995, 316). Answering to Derrida’s critique according to which Heidegger’s privative stance on animals is a left-over of metaphysical humanism, Dastur suggests understanding Heidegger’s notion of “privative interpretation” in *Sein und Zeit* as a form of “negative theology,” of mystical ontology which would only allow “speaking of the animal to forbid speaking about it” (Dastur 1995, 306). Notwithstanding the fact that Dastur’s interpretation opens very important questions and helps to make sense of Heidegger’s unexpected principle according to which we should “cross out” our own language in speaking about animals (Heidegger 1995, 292), it nonetheless seems strange from a Heideggerian standpoint to argue that our understanding of Being prevents a proper access to animal life. Heidegger’s thinking rests on this simple, basic premise: to human beings belong an understanding of being, of their own being and of the being of entities which are not at their measure. This is precisely *Dasein*’s ontological privilege: “Constitutive of its understanding, *Dasein* possesses an understanding of the Being of all entities of a character other than its own” (Heidegger 1986, 13). If the distinction between humans and animals rests precisely on our capacity to apprehend beings in their being, why can we not grasp animals as they are in themselves? Why could we only speak of them “behind the bars of quotation marks”?²¹ Where does this poverty of our language

21. In *Difficult Freedom*, Levinas recalls his imprisonment by the Nazis: “We were subhuman, a gang of apes.” Their humanity, their language, was kept “behind

and our understanding suddenly come from? For Dastur, “we have no other choice than to see the animal from a privative stance” (1994, 289):

We have nothing but a negative access to the being of the animal because “life” is always for us *human* life, that is, a life able to interpret itself, to understand itself. We can only conceptualize the life of what is “merely” living by a work of abstraction. (Dastur 2003, 23)

Because “in every interpretation, we always necessarily anticipate ourselves,” any understanding of animals would turn out to be the result of an anthropomorphic account (Dastur 1995, 298). This may, in a sense, be true. As Kant once said “we can only judge an understanding by means of our own understanding and therefore an intuition from our own intuition” (1999, 314). Of course, Kant was speaking of God here rather than animals. However, the principle applies to animals just as well. If, as Husserl argues, “we understand animals through our understanding of human beings,” then we might have to concede anthropomorphism cannot be avoided altogether.²²

Anthropomorphism: Begging the Question of the “Properly Human”

Of course, anthropomorphism as projection of peculiarly human characteristics onto animals is wrong by definition. But what should be considered properly human? If I think of an opossum as having emotions and intentions, am I projecting onto this animal exclusively human properties? When I see a dog chasing a cat, whenever I describe an animal as *doing something*, anything at all, am I being anthropomorphic? Uexküll used to think so. At the beginning of his career, Uexküll was a radical behaviorist who insisted on substituting “objective” terminology for merely “subjective” descriptions. He thus avoided terms like “seeing,” preferring “photoreception.” Eventually reconsidering his attempt “to ‘clean up’ an impossibly anthropocentric nomenclature,” he then became convinced that “it is fundamentally false to try to explain the lives of animals mechanistically.”²³ His goal became to uncover *animals as subjects, though not as human subjects*. To achieve this, one must necessarily reconsider what is properly human. Merleau-Ponty has shown how this was possible when he reconsidered his position on the animal’s lack of any symbolic activity between his first book *The Structure of Behavior* (1942), and his later lecture course on nature. Heidegger, on the other hand, does not seem open, when studying bees and other insects, to

the bars of quotation marks” and the only one who recognized them as humans was a dog, a dog name Bobby (1990, 153).

22. Husserl, Ms K III 18, 39: “Wir verstehen aber Tiere auf dem Umweg über das Menschenverstehen” (cited in Depraz 2001, 175).

23. Quoted by Harrington (1996, 42).

reconsider what is proper to *Dasein*. The goal, as he said in *The Basic Problems of Phenomenology*, is “to determine reductively, starting by what is given to us as existent, what could be given to an animal that merely lives but does not exist” (1975, 271). Everything happens as if animal life could be deduced afterwards with what was left from the existential analytic. But the problem is that there are not many leftovers for the animal: the ontology of *Dasein* is so fundamental that it monopolizes affection, orientation, understanding, and being-with as existential structures.²⁴

If avoiding Heidegger’s notions of being-in-a-world, of *Befindlichkeit*, of unthematic and pre-reflexive understanding, and of being-with is so difficult when describing animal life, could it be because these are not fundamentally human structures after all? Could the existential structures of *Dasein* be fundamentally animal structures? This may come as a surprise for readers mainly familiar with *Being and Time* and Heidegger’s later works, but he had granted earlier that affection (*Befindlichkeit*), understanding (*Verstehen*), and being-with (*Mitsein*) were not exclusive to human *Dasein*. The early Heidegger thought *Befindlichkeit* belonged to any being endowed with perception because to perceive is always to find oneself (*befindet sich*) pleasantly or unpleasantly disposed toward what is perceived.²⁵ In his SS 1926 lecture course, he also acknowledged that a form of understanding belongs to animals.²⁶ In a general way, before he restricts, in *Being and Time*, *Dasein*’s way of being to humans, Heidegger was thinking of the animal as “a being for whom living, being-in-itself, matters to it in some way” (2002b, 51), as a “being to which we must attribute, in a formal way, the kind of being which belongs to *Dasein*” (1970, 223). Even if Heidegger will eventually change his mind about animal life—as Dilthey also did—and come to plainly affirm that “the animal has no world, not even an *Umwelt*” (Heidegger 1983, 54), this does not change the fact that, while he was elaborating *Dasein*’s existential structures (roughly between 1924 and 1926), Heidegger used to grant to animals *Dasein*’s way of being. We do not have the space here to offer an interpretation of this anthropological

24. To have a world is a condition of possibility for sensible affection (Heidegger 1986, 137) and “orientation is a structure of being-in-a-world” (Heidegger 1970, 321).

25. Heidegger 2002b, 122: “Affects (*pathe*) are not mental states, but refer to the *disposition of the living in his world* [*Befindlichkeit des Lebenden in seiner Welt*], how he stands to something, how he lets something affect or concern [*angehen*] him.”

26. Heidegger 1993, 207–8: “Understanding belongs to the mode of Being of animals. To say that something is understood means that it is manifest in its being such and such: it is no longer concealed. In understanding, there is something like truth, *aletheia*: that which is unconcealed, not covered over, but on the contrary, uncovered.”

shift in Heidegger's thinking, but it is important for our discussion to notice that this fundamental turn goes hand-in-hand with his strong refusal of distinctions between kinds of living beings—a fundamental feature of his thinking in *Being and Time* and beyond.²⁷

An Expanded World: Being-with Animals

A philosophical zoology will unfold in a very different way whether one starts with lower animals, insects, and invertebrates or with so-called “higher” animals, like cats and dogs, and obviously chimps.²⁸ Which animal should be the spokespersons of animal life? Should we start, like Husserl, with higher animals that are most familiar to us or, like Heidegger, with lower animals that are most perplexing? Perhaps one should relinquish terms like “higher” and “lower” in favor of others, like “familiar” and “unfamiliar.” This would mean embracing the idea that we need to start by what we know best and, at the same time, a self-conscious reminder that our investigations are inevitably tainted by anthropocentrism and anthropomorphism. Moreover, to call “familiar” those animals we do understand and “unfamiliar” those we do not leaves some room for *flexibility*. It leaves open the possibility that very strange animals may become familiar ones. This possibility is best exemplified by Uexküll, whose strolls in the foreign worlds of rather puzzling animals uncovered dimensions of these worlds to which we would otherwise be blind.

When becoming familiar with animals, we are in the same situation as Husserl's bird that can fly off to another planet. The bird, reminds Merleau-Ponty, “does not have a double ground” but “from the sole fact that it is the same bird, it unites the two planets into a single ground” (1994, 110). Unable to “think without this reference to a ground that we ourselves always are” (1994, 111), this ground is nevertheless not a fixed entity, but a domain that can be expanded. And Husserl knew this when, dealing with abnormal subjectivities, he refrained from thinking of them as merely impaired.²⁹ As Depraz has shown, abnormal subjects are not “deficient subjects who would be missing something,”

27. In order to follow Heidegger's logic, we must stop thinking of animals and plants as occupying different ontological planes because they all belong to the same mode of being: life, mere life [*Nur-noch-Leben*] (1986, 50). The essence of life—world deprivation—holds true for animals and plants (1995, 179, 188, and 191).

28. This is best exemplified by Levinas who says very different things about animal life whether he speaks of a snake or a dog. Although he did not know whether snakes have a face, he surely knew a dog who had a name (Levinas, 1990).

29. Husserl is well aware that they are called “abnormal” in reference to the norm that I always am.

but alien subjectivities that “enable us and compel us to learn and to become familiar with unknown dimensions of ourselves and with new horizons of our world. They enrich our self and enlarge our world” (2001, 174). Can we think of animals as having access to dimensions of the world unknown to us? Can an animal *teach* me something, anything at all, about the world? Husserl certainly did think so. Talking of a dog he would go hunting with, he described the dog’s racing through the woods, looking for prey and, upon discovery, loudly indicating the wounded animal’s location (1973, 167). What is happening here? Can an animal really indicate something? Can it intend to indicate something *to me*?

As we know, Heidegger maintains in his WS 1929-30 lecture course that it is not possible for an animal to express something meaningful, because animal expressions are “mere *psophoi*,” “noises that lack meaning” (1995, 307). But this presentation of animal voices as “unarticulated sounds” “triggered off due to some physiological state” clashes from his earlier account of animal voice. In his SS 1924 lecture course, Heidegger distinguishes, following Aristotle, animal *phonē* from mere noises precisely because the former is meaningful noise (*psophoi semantikos*) in the genuine sense of *meaning* something, being able to *indicate* something (2002b, 50–55). With their voices, animals do not only communicate feelings of pain and pleasure, but also the approach of a predator or the location of food.³⁰ This indication (*Anzeigen*), however, has nothing to do with apophantic or declarative speech: by warning his fellows of a predator’s approach, the animal seeks to bring other animals to a particular disposition (fear), in order to encourage certain behavior (flight). The languages of animals do not aim at making true or false statements, but are essentially rhetorical in that they aim *at doing something or at making others do something* (Kisiel 1995, 295). As the early Heidegger used to say, an animal voice “gives no report about the being-at-hand of what is pleasing: but rather this indication and crying out is in itself an *enticing* or *warning*. Enticing and warning have the character of *addressing itself to*.” They have their ground in *being-with-one-another*:

Enticing and warning already show that animals are with one another. Being-with-one-another [*Miteinandersein*] becomes manifest precisely in the specific being-character of animals as *phonē*. It is neither exhibited nor manifested that something as such is there. Animals do not subsequently come along to ascertain that something is present: they only *indicate* it within the orbit of their animalistic having-to-do. Since

30. Heidegger is here following Aristotle who argued that animals can use their voice to communicate among themselves (*pro hermeneian alloesis*) and to teach something to one another (*The Parts of Animals*, 660a17–b2).

animals indicate the threatening, alarming and so on, they signal in this indicating of the being-there of the world, their own being in the world. (Heidegger 2002b, 54)

This last point is of capital importance: the animal indicates not only *that* it finds itself in a world, but also *how* it finds itself in the world. Animals communicate with each other and with us, even if they do not have language. To my knowledge, Heidegger's analysis of animal *Miteinandersein* is his first comprehensive sketch of what will become, in *Being and Time*, the structure of Being-with, of *Mitsein*: proof that animals can indeed teach us something.

References

- Aristotle. 1941. *De Anima*. In *Basic Works of Aristotle*, trans. J.A. Smith, ed. Richard McKeon, 535–606. New York: Random House.
- Bailey, Christiane. 2007. La vie végétative des animaux. La destruction heideggérienne de l'animalité. *PhaenEx* 2 (2): 81–123.
- Dastur, Françoise. 1995. Pour une zoologie "privative" ou comment ne pas parler de l'animal? *Alter, Revue de phénoménologie*, "L'animal," 3: 281–317.
- . 2003. *Heidegger et la question anthropologique*. Louvain-Paris: Éditions Peeters.
- Depraz, Natalie. 2001. The Husserlian Theory of Intersubjectivity as Alterology. In *Between Ourselves: Second-person Issues in the Study of Consciousness*, ed. E. Thompson, 168–178. Charlottesville, VA: Imprint Academic.
- Dilthey, Wilhelm. 1924. *Ideen über eine beschreibende und zergliedernde Psychologie*. GS V. Leipzig/Berlin: B. G. Teubner. First published 1894. Translated by R. M. Zaner and K. L. Heiges as *Descriptive Psychology and Historical Understanding* (The Hague: Nijhoff, 1977).
- . 1927. *Der Aufbau der geschichtlichen Welt in den Geisteswissenschaften*. GS VII. Leipzig/Berlin: B. G. Teubner. First published 1910. Translated by Rudolph A. Makkreel and John Scanlon as *The Formation of the Historical World in the Human Sciences* (Princeton: Princeton University Press, 2002).
- Edelman, D. B., B. J. Baars, and A. K. Seth. 2005. Identifying Hallmarks of Consciousness in Non-mammalian Species. *Consciousness and Cognition* 14: 169–187.
- Gadamer, Hans-Georg. 2002. *Les chemins de Heidegger*, trans. J. Grondin. Paris: Vrin.
- Harrington, Anne. 1996. *Reenchanted Science: Holism in German Culture from Wilhelm II to Hitler*. Princeton: Princeton University Press.
- Heidegger, Martin. 1970. *Prolegomena zur Geschichte des Zeitbegriffs*. GA 20. Frankfurt am Main: Vittorio Klostermann. First published 1925. Translated by T. Kisiel as *History of the Concept of Time* (Bloomington, IN: Indiana University Press, 1985).
- . 1975. *Die Grundprobleme der Phänomenologie*. GA 24. Frankfurt am Main: Vittorio Klostermann. First published 1927.
- . 1983. *Einführung in die Metaphysik*. GA 40. Frankfurt am Main: Vittorio Klostermann. First published 1935. Translated by G. Fried and R. Polt as *Introduction to Metaphysics* (New Haven: Yale University Press, 2000).
- . 1986. *Sein und Zeit*. Tübingen: Niemeyer. First published 1926. Translated

- by J. Macquarrie and E. Robinson as *Being and Time* (New York: Harper and Row, 1962).
- . 1993. *Die Grundbegriffe der antiken Philosophie*. GA 22. Frankfurt am Main: Vittorio Klostermann. First published 1926.
- . 1995. *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, trans. W. McNeill and N. Walker. Bloomington, IN: Indiana University Press. First published 1929–1930.
- . 2002a. Phenomenological Interpretations of Aristotle [*Natorp-Bericht*]. In *Supplements: From the Earliest Essays to "Being and Time" and Beyond*, trans. J. van Buren. Albany, NY: SUNY Press.
- . 2002b. *Grundbegriffe der aristotelischen Philosophie*. GA 18. Frankfurt am Main: Vittorio Klostermann. First published 1924. Translated by R. D. Metcalf and M. B. Tanzen as *Basic Concepts of Aristotelian Philosophy* (Bloomington, IN: Indiana University Press, 2009).
- Husserl, Edmund. 1966. *Analysen zur passive Synthesis, Hua XI*. The Hague: Nijhoff. Translated by J. Steinbock as *Analyses Concerning Passive and Active Synthesis: Lectures on Transcendental Logic* (Dordrecht: Kluwer, 2001).
- . 1973a. Statische und Genetische Phänomenologie. Die Heimwelt und das Verstehen der Fremde. Das Verstehen der Tiere. In Husserl 1973c, no. 35, 613–627. Translated by Natalie Depraz as “Phénoménologie statique et phénoménologie génétique. Le monde familial et la compréhension des étrangers. La compréhension des bêtes,” *Alter, Revue de phénoménologie*, “L’animal,” 3: 205–219, 1995.
- . 1973b. Welt und Menschliche Tierische Umwelt. In Husserl 1973c, 174–187. Translated by Natalie Depraz as “Le Monde Environnant des Hommes et des Bêtes,” *Alter, Revue de phénoménologie*, “L’animal,” 3: 189–203, 1995.
- . 1973c. *Zür Phänomenologie der Intersubjektivität, Hua XV*. The Hague: Nijhoff. Selected texts translated by Natalie Depraz as *Sur l’intersubjectivité* (Paris: PUF, 2001).
- . 1989. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, Second Book: Studies in the Phenomenology of Constitution*, trans. R. Rojcewicz and A. Schuwer. Dordrecht: Kluwer.
- . 1991. *Cartesian Meditations*, trans. D. Cairns. Dordrecht: Kluwer.
- Kant, Immanuel. 1999. To M. Hertz (May 26, 1789). In *Correspondence*, ed. A. Zweig. Cambridge: Cambridge University Press.
- Kisiel, Theodore. 1995. *The Genesis of Heidegger’s Being and Time*. Berkeley: University of California Press.
- Levinas, Emmanuel. 1990. *Difficult Freedom: Essays on Judaism*, trans. Séan Hand. London: Athlone Press.
- Merleau-Ponty, Maurice. 1994. *La nature. Notes de cours au Collège de France* [Nature: Course Notes from the Collège de France]. Paris: Seuil.
- Mather, J. A. 2008. Cephalopod Consciousness : Behavioural Evidence. *Consciousness and Cognition* 17: 37–48.
- Nosengo, N. 2011. “European Directive Gets its Tentacles into Octopus Research: Researchers Fear ‘Mammal-centric’ Regulation Is Ill-suited to Cephalopod Work.” *Nature News*, April 12. doi:10.1038/news.2011.229.
- Thompson, Evan. 2007. *Mind in Life: Biology, Phenomenology and the Sciences of Mind*.

Harvard: Harvard University Press.

Uexküll, Jacob von. 2010. *A Foray into the Worlds of Animals and Humans: With a Theory of Meaning*, trans. J. O'Neill, Minneapolis: University of Minnesota Press.