



The Phenomenology of Animal Life

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ABSTRACT This paper presents a bi-constructivist approach to the study of animal life, which is opposed to the realist-Cartesian paradigm in which most ethology operates. The method is elaborated through the examples of a knot-tying orangutan in a Paris zoo and chile-eating cats in a New York apartment. We show that, when grounded in the operational framework of the phenomenological approach, the interpretation of animal life acquires a much more robust character than is usually supposed.

How does animal life enter the sphere of interpretation? The question is double-pronged. It is a matter of understanding what it means that an animal life requires interpretation, and also what a human life means such that it can be not only transformed by the interpretation of animal lives, but also enriched. The majority of approaches that seek to study animal behaviour today either fail to ask this question, or if they do ask it, fail to deploy any of the means that would enable them to answer it. Animal life is thus excised from the play of significance and enclosed in a realm of physical machines paired to inaccessible qualia. However, interpreting the meaning of nonhuman comportment is not only possible, but a much needed task that deepens human experience. In the following pages we show that, when grounded in the operational framework of the phenomenological approach, the interpretation of animal life acquires a much more robust character than is usually supposed.

Two Examples

The method used is empirical—field philosophy and phenomenological sociology—and constitutes what we call a “bi-constructivist” or “multi-constructivist” position. Like all good empirical work it also requires ongoing theoretical and speculative interpretation. Two examples should allow a better understanding of this bi-constructivist position: the study of

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knot-tying behaviour in immured orangutans, and the study of the lives of four cats in a New York apartment.

Despite the common wisdom of primatologists to the contrary, some orangutans have shown the ability to tie knots.¹ Wattana, an orangutan raised in the menagerie of the Jardin des Plantes in Paris, proved to be an eager, assiduous and skilled knot-maker. Surveys showed she was not alone among captive great apes. This ability of an extraordinary individual orangutan challenges the anthropocentric dogma that reserves digital dexterity to the *human* hand, among a familiar list of other exceptional properties like tool-use, language, reason, and so on, as well as supposedly unique niche behaviours like addiction to psychedelic drugs or the eating of chiles.² Such instances demand both theoretical and methodological elaboration, and here useful dimensions of phenomenology are considered alongside empirical evidence. Both demand the conceptual reconfiguration of ethology. To understand this surprising behaviour we must jettison the habits of thinking species in general in order to think instead the singularity of animals.³ The notion of animal “contamination” by humans and outmoded dogmas about tool-use prevented the wider recognition of the significance of Wattana’s (and other great apes’) knot-tying behaviour as an ingenious manipulation of rope or other long, flexible materials. It is precisely such anomalous instances that bi-constructivism takes seriously.

In another domain, the study of feline-human relations in a New York apartment reveals interactions and abilities unintelligible within the received parameters of ethology. This is not simply a matter of challenging the dogmas of human exceptionalism, although these cats certainly do, for example in their taste for chile-eating, an activity many reserve to a uniquely human masochism.⁴ Rather, the question becomes one of fashioning the space, manner and language to experiment with ways of being-together where the human is not the centre of activity or meaning-making. Vinciane Despret and Dominique Lestel have emphasised the importance of the principles of surprise and politeness that leave a maximum latitude to animals in interaction and research.⁵ This approach lets animals take initiative in indicating

¹ Chris Herzfeld and Dominique Lestel, “Knot Tying in Great Apes: Etho-ethnology of an Unusual Tool Behavior,” trans. Nora Scott, *Social Science Information* 44, no. 4 (2005): 621-653.

² On the hand as that which is proper to the human, see for example Tom Tyler, *Ciferae: A Bestiary in Five Fingers* (Minneapolis: University of Minnesota Press, 2012); Dominique Lestel, “Like the Fingers of the Hand: Thinking the Human in the Texture of Animality,” trans. Matthew Chrulew and Jeffrey Bussolini, in *French Thinking About Animals*, ed. Louisa Mackenzie and Stephanie Posthumus (East Lansing: Michigan State University Press, forthcoming 2015), 61-73.

³ Dominique Lestel, *L’Animal singulier* (Paris: Seuil, 2004).

⁴ James Gorman, “A Perk of our Evolution: Pleasure in the Pain of Chilies,” *New York Times* 20 September (2010); Paul Rozin and Deborah Schiller, “The Nature and Acquisition of a Preference for Chili Pepper by Humans,” *Motivation and Emotion* 4, no. 1(1980): 77–101; Paul Rozin, “The Role of Desensitization to Capsaicin in Chili Pepper Ingestion and Preference,” *Chemical Senses* 6, no. 1 (1981): 23-31.

⁵ Vinciane Despret, *Quand le loup habitera avec l’agneau* (Paris: Les Empêcheurs de penser en rond, 2002); Dominique Lestel, *Les Amis de mes amis* (Paris: Seuil, 2007), to be published in English as *The Friends of My Friends: On Animal Friendship*, trans. Jeffrey Bussolini (New York: Columbia University Press, 2015).

directions and design, and often leads to the disclosure of unexpected behaviours and modes of relating. By clearing the philosophical space for a phenomenology of nonhuman creatures, Bussolini has made possible the extended participant-observation of this singular cat cohort in New York.⁶ In addition to seeking out and happily and repeatedly eating spicy chiles, these cats also developed the capacity to open the refrigerator (a significant “mediation of action” motivated by their taste for chiles) and then to defeat both tape and plastic child locks used to secure it. A circumscribed experimental setup would almost certainly have missed each of these significant activities and the opportunity to comprehend the meanings attached to them for the cats.

It is striking to note that neither ethology as commonly practiced today, nor comparative psychology, can account for the two examples mentioned above. The reason for this deadlock lies in the realist-Cartesian posture in which these animal sciences are mired.

The Realist-Cartesian Paradigm in Ethology

The realist-Cartesian paradigm in ethology has significantly atrophied our zoological imagination in reducing animal life to behaviours (reduction 1) and behaviours to causal mechanisms (reduction 2). The first reduction presents animal life as a drab greyscale, draining it of its intersubjectivity, personality, meaning and exuberance. The second secures this monotony to a series of hidden instruments. Together they radically impoverish our capacity for adequate understanding, not to mention wonder and intoxication, amid the vital wealth of animal alterity.

This paradigm has also constantly denigrated the social dimension of the observational situation and the importance of shared life for understanding the intelligence of the other. Its epistemology posits an observer separated from and unknown to its object of surveillance. Yet far from guaranteeing objectivity, this view from nowhere produces boredom and situational stupidity. It stratifies and congeals the energy and fluidity of the intra- and inter-species social interactions wherein capabilities are truly expressed.

It has invented the extremely problematic notion of “disturbance” to exclude the ethology of animals who live with humans. Throughout western thought and practice, “nature” is reified as a pristine domain separate from the contaminating influence of humanity. This patent metaphysics has blinded itself to the ubiquity of multi-species interaction. Rather than recognising the ongoing event of human-animal interface, it rejects as unnatural—disturbed or abnormal—those animals whose lives are modified by their human companions. But the joke is on them: this describes all animals studied by ethologists.

The realist-Cartesian paradigm has reduced the notion of environment to an extremely poor naturalistic ecology. Animals here become organisms deterministically adapted to a set of objective conditions. Their subjective construction of their milieu is effaced. So too is the presence of our own species, and the innervating effects of our technological, architectural and social presences. Only those natural factors operative within a reductive evolutionary framework are admitted to this model of the world, much to its deprivation.

This realist-Cartesian paradigm has established its legitimacy by disqualifying the aspects of reality it finds to be incompatible with its approach: anthropomorphism and

⁶ Jeffrey Bussolini, “Toward Cat Phenomenology: A Search for Animal Being,” *Found Object* 8 (2000): 155-184.

anecdotes. A wide literature has now shown the charge of anthropomorphism to mask an objectification of nonhuman animal life. As Eileen Crist argues, much ethology has in fact specialised in the *mechanomorphic* description of animal activity as machinic and determined, whether by behavioural, instinctive, genetic or other mechanisms.⁷ Its scientific exclusion of anecdote renders the realist-Cartesian paradigm incapable of perceiving the anomalous, unusual and singular animal capacities whose witness so directly threatens the model of predictable beast-machines.

Gyorgy Markus has argued that the natural sciences developed a particular hermeneutics whose interpretive presumption is that no hermeneutics is required.⁸ Paul Rabinow lines this up with Weber's thesis on the rationalisation of modernity that disenchant the world and abandons broad questions: "The natural sciences have succeeded in evacuating meaning from their productions. ... Growing technical mastery and specialization in the natural sciences has yielded both control and a progressive narrowing of meaning."⁹ We would add that meaning has been emptied not only from scientific writing and practice, but from its rightful place at the heart of the very phenomena that one seeks to explain—that is, in ethology, the lives and worlds of animals.

The Bi-Constructivist Paradigm

Conversely, the bi-constructivist paradigm fully assumes the phenomenological posture by characterising ethology as the science of the human interpretation of animal interpretations. It takes as axiomatic the subjectivity of animals and the situational emplacement of their human observers as living beings themselves. Rather than supposing an "objective" alienation, the ethological perception of animal lives—of the meaning-making activities by which they construct their worlds—requires the assumption of agency and perception in a situation of shared life. Ethologists must develop techniques and awareness to pay heed to how animals invent their worlds: bi-constructivist ethology is an activity of inventing rather than discovering. As Lestel has outlined, it is called bi-constructivist because it must develop ways for humans to construct the ways that animals construct their worlds; it highlights "the invention of invention and the interpretation of interpretation."¹⁰ It can be called multi-constructivist because this construction can take place between a number of animals and actors. An animal gives meaning to what happens as part of its "behaviour," but there is no reason to believe that there is only one meaning in each case.

The bi-constructivist paradigm recognises that the description of singular animals requires the use of anecdotal and other evidentiary forms usually excluded from the scientific approach. While remaining averse to the projection onto animal others of human or other improper characteristics, it equally shuns the projection of mechanism and its reduction of vital capabilities to programmed behaviours. The careful, close description of animal worlds gives

⁷ Eileen Crist, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 1999).

⁸ Gyorgy Markus, "Why Is There No Hermeneutics of Natural Sciences? Some Preliminary Theses," *Science in Context* 1, no. 1 (1987): 5-51.

⁹ Paul Rabinow, *Essays on the Anthropology of Reason* (Princeton: Princeton University Press, 1996), 22.

¹⁰ Dominique Lestel, "What Capabilities for the Animal?" *Biosemiotics* 4 (2011): 83-102, 84.

the lie to reductionist accounts. Carefully used, anecdotes help elucidate complex questions of behaviour and culture. Sometimes mistaken, or stigmatised, as unscientific folk observation, anecdote has been recognised both as a part of ethological practice, even if often formally disavowed, and as a crucial aspect of everyday life and knowledge practices.

Scholars have also used the related method of storying as a mode of observation that is closely attentive to contexts of interaction, and to the ideas, priorities and perceptions of different actors involved.¹¹ The story involves a multiplicity of actors, is polyvocal, and is attentive to the emplacement, subjectivity and style of each actor. If anecdote is sometimes treated as a singular, discrete event, a single “story” (although anecdote can certainly be more developed than that, an “account”), storying might be described as the extended method of anecdote, the etho-ethnography of observation and interaction in a place. Storying attends to the phenomenological co-constitution of place, subjectivity and becoming. As Thom van Dooren and Deborah Bird Rose describe it, “places are co-constituted in processes of overlapping and entangled ‘storying’ in which different participants may have very different ideas about where we have come from and where we are going.”¹²

Bi-constructivist ethology recognises that there are more things in the worlds of animals than are dreamt of in naturalistic philosophy. As Paul Rabinow puts it, following François Dagognet, “If the word ‘nature’ is to retain a meaning, it must signify an uninhibited polyphenomenality of display. Once understood in this way, the only natural thing for man to do would be to facilitate, encourage, accelerate its unfurling: thematic variation, not rigor mortis.”¹³ A “stroll through the worlds of animals”—to cite the title of Jakob von Uexküll’s best-known text—reveals an abundance of otherwise invisible forms of life.¹⁴ Rather than an impoverished process of mechanical interaction, however complex, we find a lively admixture of multispecies intersubjectivities. Bi-constructivist ethology is less interested in the *behaviour* at the centre of mechanist ethology than the *activity* that entails interpretation and emplacement. Nor does human presence irretrievably corrupt or disturb animal nature (we have dispensed with scare quotes lest all words be swept away): there are only various types of hybrid communities of human-animal-machine. Human activity and impact takes multiple, often contrasting forms, and the work of ethological observation—whether the animals be more or less integrated into human sociality—carries its own aspects of intervention and shared sociality. For bi-constructivist research, it is not a matter of erasing human presence, but rather

¹¹ Thom van Dooren and Deborah Bird Rose, “Storied Places in a Multispecies City,” *Humanimalia* 3, no. 2 (2012): 1-27; Vinciane Despret, “En finir avec l’innocence,” in *Penser avec Donna Haraway*, ed. Elsa Dorlin and Eva Rodriguez (Paris: Presses Universitaires de France, 2012); Donna J. Haraway, “Sowing Worlds: A Seed Bag for Terraforming with Earth Others,” in *Beyond the Cyborg: Adventures with Donna Haraway*, Margret Grebowicz and Helen Merrick (New York: Columbia University Press, 2013), 137-146.

¹² van Dooren and Rose, “Multispecies Stories,” 2.

¹³ Rabinow, *Essays in the Anthropology of Reason*, 108.

¹⁴ Jakob von Uexküll, “A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds,” *Semiotica* 89, no. 4 (1992): 319-391. The fact that he calls it a “picture book” indicates that he had some sense of this account as a story, and the stroll as a “storying” practice. On this work’s character as a picture book, see Stephen Loo and Undine Sellbach, “A Picture Book of Invisible Worlds: Semblances of Insects and Humans in Jakob von Uexküll’s Laboratory,” *Angelaki* 18, no. 1 (2013): 45-64, 46.

of recognising its plurality and continued transformation, of ingeniously reformulating it and tweaking its nature, the better to comprehend the meaning-making of our nonhuman co-conspirators.

In maintaining its *cordon sanitaire* around the notion of an objective description of reality by a detached observer, realist-Cartesian ethology has resisted taking account of the position and effects of the researcher as part of the context of study. Bi-constructivist ethology brings the explicit attention devoted to the observer in phenomenology and ethnography to bear on ethology as a relational science. Rather than maintaining the fiction of the invisible or privileged observer, it seeks to take account of their presence and embodied self as part of the dynamics of interaction at hand. Against the long sceptical tradition that rejects as romantic delusion the accounts of those who live and work with animals, it accepts the refined empathy and grounded intuition that perceive animals as subjects and persons, partners in shared ways of life. Ethnography and phenomenology have both undergone a long series of distinctive methodological reflections taking stock of the social dynamics at play in intersubjective contexts of co-presence, co-observation and co-constitution. Predicated on such relational accounts of subjectivity, bi-constructivist ethology does not leave the researcher out of the picture but focuses on how she, too, emplaces and stories the context of study and interaction.

Unlike the realist-Cartesian paradigm, the bi-constructivist paradigm is open and leaves room for surprise. It does not seek a veiled instrumentality behind phenomena, with all possible behaviour having already been categorised and explained by a set of biological mechanisms. Rather, it witnesses life in its cultivated wildness and inventive profligacy. It follows the famous Spinozist maxim—“no one has yet determined what the Body can do”¹⁵—applying it as one ought to the evolutionary multiplicities of bodies and their affects. It shifts the frame from the Aristotelian question “What is an animal?” to the Spinozist inquiry “What can it do?” It aims to revitalise and enrich our zoological imagination by enhancing and deepening our capacity for the perception, interpretation and sharing of animal lives.

Phenomenology and Animal Life

What can bi-constructivist ethology draw from the phenomenological tradition? It is not a unidirectional influence: phenomenology has itself long drawn from experimental and theoretical biology to inform its accounts of human experience, both as distinct from and part of the zoological realm. Brett Buchanan has explored one such legacy, showing how Heidegger’s *Daseinanalyse*, Merleau-Ponty’s phenomenology of the flesh and Deleuze’s rhizomatic philosophy were each in their own way shaped by Uexküll’s *Umwelt* theory, such that “the being of the animal lodges itself in the development of their ontologies.”¹⁶ Uexküll’s *Umweltlehre* remains prominent insofar as it takes seriously the alterity and world-making of animal points of view and the imaginative task required of an ethology that desires to understand them. Other thinkers, from biologists Adolf Portmann and Frederik Buytendijk to philosophers Ernst Cassirer and Georges Canguilhem, have mingled ethology and

¹⁵ Spinoza, *Ethics*, III.2.s. Or as in Agamben’s recent formulation (in the concluding remarks of a course at the European Graduate School, Saas-Fee, Summer 2014), “we do not know what a body can.”

¹⁶ Brett Buchanan, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze* (Albany: SUNY Press, 2008), 188.

phenomenology in instructive ways to reveal significant dimensions of interpretation in animal (including human) life. Drawing on these thinkers and others, a number of scholars have in recent work made the case that, despite the persistence of forms of ontological exceptionalism dividing humanity from animality, elements of phenomenological philosophy remain useful—indeed essential—for attempts to understand animal life.¹⁷

Edmund Husserl's thought offers an approach that, resituated and reworked, can profitably address animal life and animal-human interactions. Insofar as our own intersubjective embodiment comprises the primary layer of experience, we share with animals this common ground of animate life. Animals inhabit our surrounding world in which their lived bodies and lively subjectivities are manifest. Indeed they cannot be fully understood when only examined in their objective physical or behavioural characteristics; a transcendental method is needed. On a number of occasions, Husserl's texts refer insightfully to animals in order to elaborate his methods or positions.¹⁸ In *Ideas II*, for example—on the way towards contrasting the naturalistic attitude of scientific research that forgets the world to the personalistic attitude of shared life among subjects—Husserl uses the example of a cat to argue for the experienced reality of others' subjective perception:

I see a playing cat and I regard it now as something of nature, just as is done in zoology. I see it as a physical organism but also as a sensing and animated Body, i.e., I see it precisely as a cat. ... the cat is present there in the flesh—specifically, as a physical thing with sensing surfaces, sense organs, etc. The stratum of sensation is not there as something beside the physical thing; what is there is a Body, a Body which has physical and aesthesiological qualities as one. Likewise, the Body is also experienced as Body of a soul ... beyond the merely physical qualities it constantly has aesthesiological and psychic ones.¹⁹

¹⁷ Previously, the majority of relevant work focussed on the environment. See for example John Llewellyn, *The Middle Voice of Ecological Conscience: A Chiasmic Reading of Responsibility in the Neighbourhood of Heidegger, Levinas and Others* (London: Macmillan, 1991); Ted Toadvine and Charles S. Brown, eds. *Eco-Phenomenology: Back to the Earth Itself* (Albany: SUNY Press, 2003). But recent work, some of which we cite below, has given a more prominent place to animals and animality in phenomenology. The thought of Alphonso Lingis is of particular value here. See, for example, his illustration of some ways in which “the phenomenological philosophy elaborated in the last century has much to offer to cognitive ecology,” in Alphonso Lingis, “Understanding Avian Intelligence,” in *Knowing Animals*, ed. Laurence Simmons and Philip Armstrong (Leiden: Brill, 2007), 43-56, 46.

¹⁸ On Husserl's remarks on animal life, see for example Javier San Martín and María Luz Pintos Peñaranda, “Animal Life and Phenomenology,” in *The Reach of Reflection: Issues for Phenomenology's Second Century*, ed. Steven Crowell, Lester Embree and Samuel J. Julian (Boca Raton: Center for Advanced Research in Phenomenology, 2001), 342-363; Angela Ales Bello, “Phenomenological Hyletics: The Animal, The Human, The Divine,” in *Phenomenology of Life—From the Animal Soul to the Human Mind. Book II. The Human Soul in the Creative Transformation of the Mind*, ed. Anna-Teresa Tymieniecka (Dordrecht: Springer, 2007), 3-10, 3-6.

¹⁹ Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to Phenomenological Philosophy. Second Book: Studies in the Phenomenology of Constitution*, trans. Richard Rojcewicz and André Schuwer (Dordrecht: Kluwer Academic Publishers, 1989), 185. On this passage, see Corinne M. Painter, “Appropriating the Philosophies of Edmund Husserl and Edith Stein: Animal Psyche, Empathy,

This everyday experience of a playing cat exemplifies the ordinary accessibility of the “psychic” qualities of others of whatever species. Rather than solipsistically trapped as inaccessible qualia, compounded by species differences and the lack of language, their embodied minds are empathetically and holistically experienced in being together: “As we can direct our analyzing regard onto other properties, so we can also turn to these psychic ones; they then stand out as a ‘stratum,’ as a really inseparable annex, of the physical Body as a thing.”²⁰ Husserl’s phenomenological method shows that the psychic life of an animal is included a priori in the sense content of our apprehension of that animal. This experience is moreover precisely what makes objective zoological sciences possible.

Bracketing the naturalistic, scientific attitude to animal organisms—that found in the realist-Cartesian paradigm—one can further intuit and reflect upon other elements of nonhuman psychic life. Intentionality—a type of directed attention central to the phenomenology of Husserl and his teacher Franz Brentano—is present among many animals other than humans, often in highly elaborate ways.²¹ Knot-tying apes demonstrate intentionality toward the rope or leaves they manipulate. Herzfeld and Lestel describe Wattana’s directed attention: “Wattana is extremely concentrated when making knots and is capable of devoting herself fully to her task for long stretches of time—up to an hour and a half. Keepers and researchers are well aware of orangutans’ perseverance, which makes them capable of planning an action stretching over several days in view of attaining a specific goal.”²² Cats also demonstrate this fixed direction of attention toward objects or activities, as their hunting prowess attests—as does the close visual and olfactory inspection of the chiles by the New York cats, not to mention their harvesting and eating.

Intentionality is significant because it underlies and opens onto intersubjectivity, responsiveness and meaning. As Ted Toadvine argues, “By understanding animal behavior as intentional, the phenomenological method reveals that meaningful relations, rather than merely causal or mechanistic interactions, obtain between an organism and its environment.”²³ Or as Jacques Derrida makes clear, in a text whose phenomenological dimensions are often overlooked in favour of its ethical and critical elements, animals do not merely react—they *respond*.²⁴ The meaningfulness of our collective lifeworld is constituted intersubjectively not

and Moral Subjectivity,” in *Phenomenology and the Non-Human Animal: At the Limits of Experience*, ed. Corinne Painter and Christian Lotz (Dordrecht: Springer, 2007), 97-115.

²⁰ Husserl, *Ideas II*, 186.

²¹ Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970); Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to Phenomenological Philosophy. First Book: General Introduction to a Pure Phenomenology*, trans. Fred Kersten (The Hague: Martinus Nijhoff, 1982).

²² Herzfeld and Lestel, “Knot Tying,” 633.

²³ Ted Toadvine, “How Not to be a Jellyfish: Human Exceptionalism and the Ontology of Reflection,” in *Phenomenology and the Non-Human Animal: At the Limits of Experience*, ed. Corinne Painter and Christian Lotz (Dordrecht: Springer, 2007), 39-55, 41-2.

²⁴ Jacques Derrida, *The Animal That Therefore I Am*, ed. Marie-Louise Mallet, trans. David Wills (New York: Fordham University Press, 2008).

only among humans possessing language, but among numerous intentional, responsive, interpreting animals with whom we share our lives.

Wioletta Miskiewicz's reading of Husserl from what she calls an open ecological and developmental perspective reveals the productivity of his account of intersubjectivity for human-animal relations.²⁵ She uses the concept of *interaffectivity* to study the substantial affective exchange that takes place in the context of embodied environments and the robust interindividuality that constitutes life in common between animals and humans in hybrid communities. The New York cats demonstrate such a complex dynamic emplacement between species. Some spaces and surfaces take on great significance for interaction and interaffectivity. Mimi, a domestic shorthair mackerel tabby and white cat rescued from a garden in Queens, frequently leads or follows human interactants to the bathroom as a preferred place of petting and nuzzling, the significance of which is shown in these field notes: "Yesterday, after following me to the bathroom for petting on the side of the tub and the floor in front of it, she darted a few steps into the hallway, fixed me in her gaze, and tilted her head three times in succession toward the main room. When I got up to follow her (I had been sitting on the floor of the bathroom for the interaction) she ran excitedly in that direction and up onto a chair in the full sunlight where she was eager to continue petting and nuzzling."²⁶ Such developed intersubjectivity is likewise central to human relationships with apes in experimental settings, in a way that belies the naturalistic attitude of many scientists and critics. In a careful essay on animal minds and the ape language experiments, Mary Trachsel concludes (in an argument reminiscent of the prior analysis of Lestel) that laboratory approaches only reveal the necessity and wealth of the phenomenological approach to intersubjectivity: "empirical knowledge and linguistic reports still fall short of telling us who these creatures are, and what it is like to be one of them. For this kind of understanding, ape-language research suggests, intersubjective knowledge alone reveals the consciousness that unites us with other forms of life."²⁷ That is, only through living together—indeed living together well—does communal rationality appear. The task of ethology is thus, essentially, a constructivist one of building community and shared understanding between species.

Martin Heidegger's existentialist phenomenology sought in part to characterise the modes of attunement, captivity and apprehension of being-in-the-world, and made use of Uexküll's theoretical biology to describe the encircling ring through which being is opened.

²⁵ Wioletta Miskiewicz, "Le sujet pensant—entre l'intersubjectivité et l'interaffectivité," *Alter: European Journal of Disability Research*, 10 (2002): 315-337.

²⁶ Ananya Mukherjea and Jeffrey Bussolini, Field Notes on Centre for Feline Studies interactions, 8 November, 2014.

²⁷ Mary Trachsel, "Husserl's Intersubjectivity and the Possibility of Living with Nonhuman Persons," in *Phenomenology of Life—From the Animal Soul to the Human Mind. Book I. In Search of Experience*, ed. Anna-Teresa Tymieniecka (Dordrecht: Springer, 2007), 33-51, 49. See Dominique Lestel, *Paroles de singes: L'Impossible dialogue homme/primate* (Paris: Découverte, 1995). For a similar interpretation arguing that "the scientists make implicit use of the intercorporeity that exists between humans and nonhuman animals," see also Erika Ruonakoski, "Phenomenology and the Study of Animal Behavior," in *Phenomenology and the Non-Human Animal: At the Limits of Experience*, ed. Corinne Painter and Christian Lotz (Dordrecht: Springer, 2007), 75-84, 81. See also D. Lawrence Wieder, "Behavioristic Operationalism and the Life-world: Chimpanzees and Chimpanzee Researchers in Face-to-Face Interaction," *Sociological Inquiry* 50 (1980): 75-103.

His frequently discussed characterisation of the driven, absorbed behaviour of the “poor in world” animal as compared to the acting comportment of the “world-forming” human (and the stone that lacks world) is infamously (if not universally) read as the very summation of an arrogant and ignorant anthropocentrism.²⁸ Yet are world and environment really so distinct? Given that Uexküll seeks rigorously to account for the sensory bubbles that give each creature a particular ecophysiological ground,²⁹ and thus take on the world, the concept of *Umwelt* also necessarily entails a description of the limits of each creature’s ground and perception. At the same time, such limits are not always insurmountable—nature overflows, and animals are capable of unexpected acts, mediations and interpretations. Heidegger’s humanism can be overcome not only through conceptual analysis—for example, by deconstructing the dogma dividing reaction from response—but through empirical accounts and etho-ethnographic description. A crucial aspect of bi-constructivist ethology is to examine how animals, including humans, surmount, interpret, and move around their various limits in practices of freedom, surpassing a strict biological, or bio-mechanical, reduction.³⁰

In his celebrated stroll through the forest meadow, Uexküll denies that there is any total or complete account of all the species and actors interacting there. Instead, he prefers to speak of an interaction of the sensory bubbles of the different animals present through a musical stylistics.³¹ Depending upon their particular sensory orientations and ecophysiological grounds, some animals will perceive each other and interact, while others will remain ignorant of each other’s existences. No animal, humans included, possesses the capability to perceive and take

²⁸ Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, trans. William McNeill and Nicholas Walker (Bloomington: Indiana University Press, 1995); Martin Heidegger, *Being and Time*, trans. Joan Stambaugh (Albany: SUNY Press, 1997).

²⁹ Babette Babich, *Nietzsche’s Philosophy of Science: Reflecting Science on the Ground of Art and Life* (Albany: SUNY Press, 1994), especially chapter 3.

³⁰ Lestel, “What Capabilities,” and *Les Origines animales de la culture* (Paris: Flammarion, 2003, especially chapter 2 on mediations of action). Such an approach has been articulated in animal cognitive science by Roberto Marchesini via his concept of *intelligenze plurime* or multiple intelligences, according to which each animal has a type of thinking influenced by its sensory orientation and ecophysiological ground, allowing for infinite possible interfaces between these types of intelligences. Marchesini points out that, from an evolutionary point of view, no form of intelligence can be ranked, dated or emphasised above another, as they are all a part of a particular ecological niche or line of development that persists in the present. Roberto Marchesini, *Intelligenze plurime. Manuale di scienze cognitive animali* (Bologna: Alberto Peridisa, 2008); Roberto Marchesini, *Modelli cognitivi e comportamento animale: Coordinate d’interpretazione e protocolli applicativi* (Venafrò: Edizioni Eva, 2011); Roberto Marchesini, *Epifania Animale: L’Oltreuomo come rivelazione* (Milano: Mimesis, 2014).

³¹ One significant elaboration of this musical approach is in the work of Gilles Deleuze. Rather than search for a pre-ordained, and circumscribing, essence, Deleuze is keen to pay heed to the possibilities of action and interaction of given beings, following Spinoza’s emphasis on the rhythm of speeds and slownesses that characterise the interaction of affecting and affected bodies. Herzfeld and Lestel identify rhythm as an important aspect of bi-constructivist ethology: “Our daily life is measured by multiple rhythms. These are faster and slower for other species. The body itself has its rhythms. Rhythms are also a way of acting on the world: the rhythm of a repetitive refrain soothes, gives order and gives access to a certain degree of autonomy.” Herzfeld and Lestel, “Knot Tying,” 637.

account of each and every animal present. Put simply, “world,” in Heidegger’s parlance, is the human sensory sphere. Like Uexküll’s soap bubbles, it is both the phenomenal access for a given being to wider reality, *and* the contours of a limit. Such an interpretation is consonant with Giorgio Agamben’s in *The Open* where he notes that the *Umgebung*, or “objective” world, within which we see the living being moving that Uexküll distinguished from the *Umwelt*, is indeed none other than the human *Umwelt*.³² Agamben further points out that Uexküll affords no special privilege to the *Umgebung*, noting that it varies according to the point of view from which it is observed: as for instance the forest from the perspective of the park service officer, the hunter, the botanist, the wanderer, the friend of nature, etc.

As Joan Stambaugh noted, in initially developing his concepts of the Open and the clearing, Heidegger argues against Rilke, who maintained that animals already had a clear perception of the Open, living in it, while humans had cut off their own access to the Open through their objectification of the world.³³ Roberto Marchesini describes how “in the humanistic transfiguration the concept of the *Umwelt* becomes a way to legitimise the disjunctive reading, if humans alone among living beings are understood to exit from the epimethean bubble. Exiting from the bubble means, in reality, not having one, or not being contained inside an *Umwelt*, inhabiting the *World* or being a former of worlds.”³⁴ Marchesini argues that this humanistic reading of the *Umwelt* is erroneous and has distorted some of what Uexküll said. For instance, the “species-specific *Umwelten* ... are not separate monads but overlapping entities,” the immersion in the *Umwelt* is not only sensorial, but based on motivations, emotions, knowledge and specific cognitive functions, and “we err when we believe that the different *Umwelten* would be separate from one another inasmuch as they are overlapping, therefore there are large connecting zones between different species.”³⁵

Marchesini emphasises the open and intercrossing dimensions of various *Umwelten* in thinking about interspecies interactions. Developing his phenomenological account, he points to some misinterpretations of the *Umwelt* that should be avoided. These are “that the *Umwelt* negates creativity ... that the different *Umwelten* would be monads separate from one another and that there would be no possible overlap or translation ... that humans would not have their own *Umwelt*, or would be totally free from any constraints in an unbounded world.”³⁶ He goes on to describe how an *Umwelt*, properly understood, is as much a field of possibilities as a constraining limit. Animals, including humans, exercise creativity in transcending their species-specific immersions and forming interspecies associations and bonds. Along these lines, Ralph Acampora elaborates *symphyis* to study somatic experiences that mediate cross-species

³² Giorgio Agamben, *L’Aperto: L’Uomo e l’animale* (Torino: Bollati Boringhieri, 2002), 44-48.

³³ Joan Stambaugh, *The Finitude of Being* (Albany: SUNY Press, 1992), 36-39; Martin Heidegger, *Parmenides*, trans. André Schuwer and Richard Rojcewicz (Bloomington: Indiana University Press, 1992), 151-161.

³⁴ Roberto Marchesini, *Epifania Animale*, 25. Citations from Marchesini are translated by Jeffrey Bussolini.

³⁵ *Ibid.*, 24.

³⁶ Marchesini, *Epifania Animale*, 18. In an interview Marchesini said that Heidegger’s phenomenological descriptions of *Da-sein* are important in this area, but that he erred in not realising that it applied to other animals as well as humans. From an interview at the Scuola di Interazione Uomo-Animale, December 2013.

compassion.³⁷ He uses Heidegger's own example of a domestic animal on the stairs of a human family home to argue that cats and dogs, in recognising and manipulating objects that are only sometimes present on the stairs, demonstrate an *as-structure* Heidegger would have related to human worlding.³⁸

The thought of Maurice Merleau-Ponty engaged in especial detail with animal life, from his early book *The Structure of Behavior* to his later nature lectures.³⁹ His nonreductive approach to behaviour, and his vision of the intersubjective, phenomenal intertwining of human and animal within an enfolded immanence, yield a distinctively zoophilic phenomenology.⁴⁰ As he put it in a radio lecture from 1948:

in spite of what mechanistic biology might suggest, the world we live in is not made up only of things and space: some of these parcels of matter, which we call living beings, proceed to trace in their environment, by the way they act or behave, their very own vision of things. We will only see this if we lend our attention to the spectacle of the animal world, if we are prepared to live alongside the world of animals instead of rashly denying it any kind of interiority.⁴¹

Like Husserl, he foregrounds the intersubjective relations between humans and animals in which experience was formed, and enables a productive analysis of the interpretive role of the observer. Merleau-Ponty's philosophy explores the connective tissue and the intertwining of senses and subjects, an immanent ontology in which nature is revealed to itself through the perception of beings that are themselves embedded in nature. Seeing is indivisibly bound up with being seen, touching with being touched.⁴²

Perhaps his most distinct notion is that of *interanimality*. It flows from an underlying connective ontology and also constitutes a critical response to zoological thought (in France in the nineteenth and early twentieth centuries) that was overly interested in taxonomies and the treatment of individual specimens. Against this static representation, he notes that we never encounter just one animal, but rather a combination and concatenation—there are as many relations between individuals of the same species as there are between each internal part of each animal.⁴³ Yet animals do not interact only within the same species but, as in Uexküll's

³⁷ Ralph R. Acampora, *Corporal Compassion: Animal Ethics and Philosophy of Body* (Pittsburgh: University of Pittsburgh Press, 2006), 23.

³⁸ *Ibid.*, 28-30.

³⁹ Maurice Merleau-Ponty, *La Structure du comportement* (Paris: Presses Universitaires de France, 1942); Maurice Merleau-Ponty, *La Nature: Notes Cours du Collège de France* (Paris: Seuil, 1995).

⁴⁰ See, for example, Ted Toadvine, "'Strange Kinship': Merleau-Ponty on the Human-Animal Relation," in *Phenomenology of Life—From the Animal Soul to the Human Mind. Book I. In Search of Experience*, ed. Anna-Teresa Tymieniecka (Dordrecht: Springer, 2007), 17-32; Ted Toadvine, *Merleau-Ponty's Philosophy of Nature* (Evanston: Northwestern University Press, 2009).

⁴¹ Maurice Merleau-Ponty, "Exploring the World of Perception: Animal Life," *The World of Perception*, trans. Oliver Davis (London & New York: Routledge, 2004), 67-77, 74.

⁴² Merleau-Ponty, *La Nature*, 374.

⁴³ Merleau-Ponty, *La Nature*, 247. He holds that interanimality is as essential to the complete account of an organism as the study of the hormones and internal processes of each animal.

stroll and Marchesini's dynamic multiple interfaces, come into contact and exchange with a variety of other creatures and their milieux, and indeed shape the world according to their own distinctive perceptive modalities. This exchange is not simply ecological but phenomenal, a melodic intertwining of expression, appearance and interpretation.

Such an interanimal intertwining of sensed sensitivity is central to the emplacement of both Wattana in the Paris menagerie (now the Apenheul Zoo) and the New York cats in their apartment. The cats of the Feline Center started from a young age, of their own accord, to join in yoga with their human cohabitants. The coordinated touch of a cat on a human's back, stomach, or shoulder, and the mutual hearing and feeling of each other's breathing, resonates with Merleau-Ponty's description of the mutual somatic contact of touching-touch. The cats interact not only with one another and with humans, but with the range of urban creatures they can see and hear from the windows. They look out to see into the East Yoga studio (one of the first to focus on dog yoga) across the street from the doggie day care below, observing dogs and humans in mutual yoga poses; this provides a tantalising instance for bi-constructivism, in which the activity of the dogs, and its interpretation, is intertwined with that of their human co-practitioners, the watching cats, and their human interactants in the apartment.

Wattana, too, interacts in essential ways with other orangutans as well as zoo workers.⁴⁴ (The interactions between different species in the various enclosures of these strange zoological communities remain terribly understudied.) She was transferred to Alpenheul with the hope, now successful, that she would observe and learn maternal behaviour from her sisters Binti and Dayang. Herzfeld and Lestel analyse the practice of knot-tying in great apes and humans as one that is predicated on the intertwining of vision and touch, with crucial bodily and heft dimensions. They note that humans do not learn knots, especially complex ones, by diagrams or spoken descriptions, but by a tactile process that involves bodily memory.⁴⁵ They also observe that it was impossible to visually chart or linguistically describe Wattana's techniques until they had successfully repeated them. Drawing on Tim Ingold to describe a weaving that applies to fibrous objects and social bonds, they describe how as the orangutans frequently use their hands, feet and mouths in knot-tying, they use a complex "spatial framework" and weaving practice that constitutes a type of embodied mathematics or etho-mathematics.⁴⁶ Such singular abilities represent not the contamination of a natural species by fallen humanity, but the offshoot of a form of hybrid, interanimal cohabitation.⁴⁷

⁴⁴ Chris Herzfeld, *Wattana: Un orang-outan à Paris* (Paris: Editions Payot, 2012).

⁴⁵ Herzfeld and Lestel, "Knot Tying," 635-636.

⁴⁶ *Ibid.*, 637.

⁴⁷ Lestel also draws on Gilles Deleuze and Félix Guattari to develop the concepts of the *singular animal* and *ethology of the singular*. See Lestel, *L'Animal singulier*; Herzfeld and Lestel, "Knot Tying," 643-648; Gilles Deleuze and Félix Guattari, *Mille Plateaux: Capitalisme et schizophrénie II* (Paris: Les Éditions de minuit, 1980). Deleuze and Guattari seek to step aside from anthropocentrism, and rather to cultivate zones of proximity, indiscernibility and indifferenciation between humans and animals; their concept of *becoming-animal* emphasises maintaining *animal* relations with animals as opposed to *human* relations with them—resisting corralling the affectivity of animals into the conventional confines of decidedly humanist identities and roles. One might see bi-constructivist ethology, which abandons the separation of humanity from nature and engages with human/animal communities, as a becoming-animal of animal science.

As this brief sketch indicates, there is a wide range of conceptual and methodological resources within phenomenology that can be deployed in the investigation of animal life. For Erika Ruonakoski, “phenomenological insights assist the study of animal communication, primarily by clarifying the relationship between the scientist and the research subject.”⁴⁸ Far from excluding the situated and embodied location from which we experience the world, the scientific study of animal behaviour should accept this qualitative standpoint, and the empathy and intuition it involves, and seek to refine and elaborate the links of animals to our human experiences and behaviour, at the same time as we increase our sensitivity to the distinctiveness of particular embodied souls and the intelligible intentionality and subjectivity they manifest.

Yet it must be a thoroughly animalised and deconstructed phenomenology from which the bi-constructivist ethologist draws. As the poststructuralist critics of phenomenology have argued, in thinking life solely as lived experience (*Erlebnis*, *le vécu*) lies the danger of quietly reintroducing anthropology. Whether in the familiar Cartesian ego or a broader human exceptionalism, phenomenology is far from immune from anthropocentric habits of thought and patterns of perception. Heidegger is only the most famous and insistent phenomenologist to have excepted humanity from a generalised, world-poor animality. Insofar as it polices and imprisons species difference, rather than recognising and responding to its multiplicity, we must deconstruct such insistent metaphysical humanism. Yet such deconstruction alone will not ultimately prove sufficient to interpret animal meaning-making; Derrida’s ethical concern for his cat as other is awkwardly conjoined with a lack of empirical curiosity about its specific nature and wants, a suspicion of the violence of knowledge that, despite protestations to the contrary, downplays the value and role of situated ethological understanding.⁴⁹ The question of animal responsiveness pursued by Derrida must be deepened and thickened through more forthrightly empirical descriptions.⁵⁰

As Toadvine writes, “To weigh the contribution that phenomenology might make in this [posthumanist] task, we must consider whether its own methodology is in principle caught up

⁴⁸ Erika Ruonakoski, “Phenomenology and the Study of Animal Behavior,” 82. See also Clinton R. Sanders and Arnold Arluke, “If Lions Could Speak: Investigating the Animal-Human Relationship and the Perspectives of Nonhuman Others,” *The Sociological Quarterly* 34, no. 3 August (1993), 377-390; David Goode, *Playing With My Dog Katie: An Ethnomethodological Study of Dog-Human Interaction* (West Lafayette: Purdue University Press, 2007).

⁴⁹ Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 19-23; Vinciane Despret, “Quand le chat entre en philosophie,” unpublished conference presentation.

⁵⁰ Continental philosophy is not alone in this regard. For example, in 1974 Thomas Nagel restored the pedigree of the question of animal interpretation. See Thomas Nagel, “What Is it Like to Be a Bat?” *The Philosophical Review* 83, no. 4 (1973): 435-450. But his extensively quoted article is especially interesting for its paradoxical side: how, indeed, can we ask what it means to be a bat by refusing to use any approach that would be able to answer this question? That there is certainly no ironic intention in his undertaking only makes it more alarming still that this philosophy could work up to such a level of inconsistency of which it is no longer aware. Nagel’s question deserves a much more robust response than he outlined, one that is precisely phenomenological.

within the ‘anthropological machine,’ and what prospects might remain for it to twist free.”⁵¹ The task is to critique and reinterpret the phenomenological method as one deploys and develops it. Bi-constructivist ethology interweaves these critical and constructive dispositions as it pursues animals in their world-forming peculiarity. It will be a counter-science of the singular, in which the concept of life is renewed—plural, intersubjective, interanimal, fully immanent, and wrought through with death⁵²—through a creative engagement with the worlds of animals.

Confronting One’s Existence with that of the Animal

The creativity of the ethologist partially determines the complexity of the animal and the interest that it presents. Merleau-Ponty knew well the inaccuracies and idiocies that result from the strange and impoverishing setups of animal experiments that “set it tasks that are not its own.”⁵³ Vinciane Despret has articulated the importance of being *polite* in asking animals the right questions and enabling them to successfully answer.⁵⁴ But it is also a matter of being *creative* in a stronger sense. One must not only evaluate the animal where is best for it—to observe it in its natural environment, or in a milieu that *makes sense* to it—nor equally *find with the animal* where and how it can do its best. One must further succeed in making sense of how it gives meaning to its life and those of others. Such an approach relies neither on testing nor dialogue.

Taking the animal seriously (1): Why we do not like tests

The phenomenological approach takes the animal seriously while the realist-Cartesian ethological and psychological approaches have, since their beginnings, engaged in the business of systematic harassment of the animal. To take the animal seriously is not only to test it in the conditions that enable it to best answer. It can also be to refuse to test. We should deny to the test the importance it is usually granted in the scientific method, since the logic of the test can become a closed logic, where the animal is summoned to respond to a question that is artificially dichotomised.⁵⁵ It is, rather, its life that should be studied and not this or that particular ability. To take the animal seriously is to attribute to it a life whose dynamics revolve around a work of meaning.

⁵¹ Ted Toadvine, “How Not to be a Jellyfish,” 41. He continues: “a double movement is required, which, on the one hand, opens a space for the positive description of the meaning of the animal’s world as other than merely a modification of the world of the human subject, while, on the other hand—and this is perhaps the more complicated task—the human as such must be reconceived as neither opposed to nor reducible to the animal.”

⁵² Leonard Lawlor, *The Implications of Immanence: Toward a New Concept of Life* (New York: Fordham University Press, 2006).

⁵³ Merleau-Ponty, “Exploring the World of Perception: Animal Life,” 75. See also *The Structure of Behavior*, e.g. 43-4.

⁵⁴ Vinciane Despret, *Penser comme un rat* (Paris: Quae, 2009).

⁵⁵ Val Plumwood’s work on negation in logic is particularly interesting here. Val Plumwood, “The Politics of Reason: Toward a Feminist Logic,” *Australasian Journal of Philosophy* 71, no. 4 (1993): 436-462.

Taking the animal seriously (2): Why we do not want to converse with it

The objective of the bi-constructivist ethologist also goes beyond engaging in a dialogue with the animal studied to understand its form of life, in order to help to not only obtain answers but to determine the right questions. The idea of dialogue takes for granted isolation as the initial condition, and sociability a state that is superimposed on it.⁵⁶ Life in common is rather the result of the confrontation of lives, both gentle and violent. It is because the ethologist and the animal have shared lives that they can engage in what can be characterised from the outside as a dialogue. The important point is that this dialogue (whatever such a concept might mean from a phenomenological point of view) is a characteristic of the shared life and not its condition. To imagine the dialogue of previously isolated individuals would indicate wanting to remain in a realist-Cartesian paradigm, only slightly improved. Phenomenology teaches us that the relation to the other—primordially animal—is prior to that to the self.

Taking the animal seriously (3): The intelligence of the animal

Beyond tests and dialogue, to understand the animal amounts to taking account of its life among those with whom it is shared. There follows therefore an approach that addresses the intelligence of the animal in two senses of the term—intelligence as competence and intelligence as espionage. The study of animal life is indeed as much empirical science as a patient search for clues to put together. Animals constantly seek to outsmart their owners, trainers, breeders, hunters and researchers. Understanding animal intelligence can involve the development of a rationality shared between cooperating partners of different species. Yet it can equally involve entanglement in games of cunning and catching, deception and detection.

A science of living beings that is done by living beings

One important consequence of what has been said is that the observer must be a living being herself in order to develop a bi-constructivist ethology. Such an ethology, in other words, is a science of living beings that is pursued by other living beings. The ambiguity of the French is not insignificant. *Poursuivre* is indeed both to try to reach a goal and to chase. This is precisely what is at issue here. The example of Lewis Carroll's Red Queen can clarify the meaning. To remain in place, one must always be running. To understand a living being, one must always let oneself be intoxicated by the way it lives and incorporate it into one's own life.⁵⁷ Realist-Cartesian ethology is on the contrary an ethology of machines. It considers the animal as a machine, which has frequently been said, but also considers the observer as a machine, which has been much less noted. This finding comes less from the mechanisation of the procedures and techniques mobilised than from the observation that everything that could constitute a social relation between two living beings is hunted down and eradicated in favour of a simple juxtaposition of behaviours in a space devoid of all meaning.

⁵⁶ For the reasons why she is not satisfied with a philosophy of relationship as found for example in Buber, see Deborah Bird Rose, "Dreaming Ecology—Beyond the Between," *Religion & Literature* 40, no. 1 Spring (2008): 109-121.

⁵⁷ Despret has described Bernd Heinrich's research on ravens in such a way in *Quand le loup habitera avec l'agneau*, 218-230.

Three different levels of observation

We can consider in particular three very different levels of observation. 1) Two living beings interact with each other from the perspective of a naïve observer (or positivist: they're equivalent) which remains at the superficial level of behaviour—that of realist-Cartesian ethology. 2) Two living beings who live together share their lives from the perspective of an outside observer. 3) They share their existence from the perspective of one of them, i.e. a reflexive observer. The latter, in fact, observes not only behaviour or performance, but also the perspective of the one who is observed. One truly comes here into an epistemic space to be invented that is very different from that of the usual western science. It is precisely along these lines that phenomenology and ethnography can significantly contribute to the understanding and effectiveness of ethology. The attention to emplacement, intertwining and the sharing of existence in phenomenology and ethnography provides precisely the horizon that has been systematically excluded from realist-Cartesian ethology, thereby foreclosing its scope of vital inquiry.

The metaphors of dance and ritual

Bi-constructivist ethology is a chase, but also a prey/predator relationship that does not lead to the death of the prey, but to harmonies of intensity between observer and observed. At this point, the metaphors of the dance and the ritual are undoubtedly the most accurate. Dance and ritual constitute the two poles of a practice of the other. Ritual is the rigid pole and dance the supple and constantly changing pole. The ethological situation is a ritual and choreographic situation that aims to address the other. A reflection on this approach has recently begun regarding animal rationalities, suggesting that the best way to realise that an animal is rational is to be rational with it.⁵⁸ Shared rationality and performance (between the animal and myself) is the proof of that of the animal. To put it otherwise, the rationality and capability of the animal would appear in its internal (intersubjective and interanimal) practice and not in an external description.

From understanding to cooperation

A similar idea, according to which we must experience the rationality of the animal by assimilating it within ourselves rather than by constructing an analytical model, indicates that the important question today is no longer to manipulate the complexity of reality, but to live with it. Our practical knowledge can be far greater than our knowledge of phenomena: rather than seeking to control even what we do not understand, we must instead learn to live with what we can only marginally analyse and cannot control other than disastrously.

The Epistemology of Complicity and the Epistemology of Rupture

The phenomenology of the animal that we propose here obviously comes into conflict with realist-Cartesian ethology and comparative psychology as they are often practiced in the university departments that house them. We must develop a critique of the war against animals of which such disciplines are often accomplices, and in particular maintain without

⁵⁸ Dominique Lestel, "What Does it Mean to Observe Rationality? A Philosophical Discussion," in *Rational Animals, Irrational Humans*, ed. Shigeru Watanabe, Aaron P. Blaisdell, Ludwig Huber and Allan Young (Tokyo: Keio University Press, 2009), 45–66.

compromise that the study of animal lives (what ethology *should* be) is not a branch of biology, but a branch of the social sciences and humanities, though specifically those social sciences and humanities that integrate biology and evolution rather than parting from them with a certain disgust, as is too often the case.

Integrating biology in the social sciences and humanities

A major challenge of a phenomenology of animal life is indeed to *restore the balance of power* between the sciences of nature and the sciences of culture (to disinter a text from post-Kantian German philosophy). Val Plumwood notes with a certain bitterness that we are unable to imagine other forms of science than those, rationalistic and positivistic, that we inherited from the Enlightenment.⁵⁹ Judith Schlanger writes that we are so accustomed to think of intellectual innovation in the terms in which the positivists have formulated it that we are hardly able to think otherwise any more.⁶⁰ She concurs in particular with the alarming assessment of Günther Anders on the atrophy of our moral imagination in the era of the atomic bomb. Yet this diminishment of the imagination is fundamentally *institutional*—more than social. Thus in order to break through, the “insurrectional imagination” demands a certain *sauvage* ferocity.

It will not be enough to interpret the inadequacies of realist-Cartesian animal sciences. As Markus argues, “A hermeneutics of the natural sciences can only render explicit those characteristics which under contemporary conditions make a reflexive hermeneutical awareness unnecessary for the successful practice of the natural sciences; it merely indicates the ‘price’ for the ease of their hermeneutic achievements.”⁶¹ Recognising the true (epistemological and political) *cost* of this naturalistic *easing*, and paying the price to reevaluate its exclusion of meaning, will need more than a hermeneutics. We must go further; the task is nothing less than replacing this impoverished model with a new paradigm. Markus identifies the precise *irrationality* of an “alternative science” attending to general problems and wider meanings.⁶² But perhaps it is today becoming more rational and realisable than he then supposed to return meaning not only to the practice of science, but to the world and its animal inhabitants (with their own plurality of worlds) that this necessarily social science seeks to interpret. Where better to start than in the territory of ethology, with its plurality of alien rationalities?

Territory and power

One significant concept at the intersection of the human and natural sciences is that of territory, a central concept in classical ethology which bi-constructivism seeks to recast. It rejects the understanding of territory as an abstract geometric area within which animals can move and behaviours and interactions can take place. Place and territory as meaningful concepts are

⁵⁹ Val Plumwood, *Environmental Culture: The Ecological Crisis of Reason* (London and New York: Routledge, 2002).

⁶⁰ Judith Schlanger, *L’Invention intellectuelle* (Paris: Fayard, 1983).

⁶¹ Markus, “Why Is There No Hermeneutics of Natural Sciences?” 46.

⁶² See also Bussolini, “Toward Cat Phenomenology,” 179.

generated by dynamic, relational inhabitation.⁶³ Lestel has elaborated this phenomenological understanding of territory as an “extension of self” and an inextricable part of the constitution and understanding of identity.⁶⁴ He indicates how within the ethological understanding of territory of Heini Hediger, it does not function as an undifferentiated space: Hediger points out that, though we may consider a much larger area its “territory,” an animal will spend much more of its time on certain paths and in certain locations within that zone.⁶⁵ The territory is not generalised space on a map, but the collection of greater and lesser intensities and rhythms formed by meaningful inhabitation and activity; it is the extension of the self and lifeways of the animal and those—humans included—with whom it shares its life.

Yet territories of community and friendship can always be reterritorialised, in particular by the anthropocentric institutions and dispositives that produce animalised animals as subjects and objects of spectacle and capital. Bi-constructivist ethology, as a social science, must also retain a critical attitude towards not only the epistemological but also the political dimensions of its constructions. For example, Hediger’s expert ethological knowledge of behaviour and territory was put in service of zoological gardens’ ever more efficient and intensive biopolitical management of captive animals’ reproductive and everyday lives.⁶⁶ The broader animal sciences are likewise often in the service of laboratory experimentation, the management of wildlife and other ethopolitical practices that specifically problematise animals’ “behaviour” as a domain of power, knowledge and intervention. Empirical investigations overlap with and cannot escape from the thoroughly zoopolitical *task* of constructing shared worlds and lives with a multitude of nonhuman animals—a task that constitutes the very animality of humanity. This inevitable intertwining of human and animal does not “compromise” research into natural phenomena but, on the contrary, invigorates our inquiries by opening up what was a fearful and enclosed epistemology into a creative, futural and fully constructive endeavour.

Conclusion

The project of a phenomenology of animal life calls into question a certain number of fundamental equilibriums that shape western thought. In particular the human exceptionalism that tries to insist on an irretrievable gap between humans and animals and the disciplinary, institutional, political and religious forms that it has nurtured. The primacy of the human and the division of academic research into cultural and natural sciences of humans and animals are foremost among the equilibriums disturbed in this process.

⁶³ See, for example, Edward Casey’s work on place and emplacement. Edward Casey, *Getting Back into Place: Toward a Renewed Understanding of the Place-World* (Indianapolis: University of Indiana Press, 1993); Edward Casey, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1997). See also Stuart Elden, *The Birth of Territory* (Chicago: The University of Chicago Press, 2013).

⁶⁴ Lestel, *Les Amis de mes amis*, especially chapter 5 on “Extension of Self and Co-identity” and chapter 6 on “Territories of Friendship.”

⁶⁵ Heini Hediger, *Wild Animals in Captivity: An Outline of the Biology of Zoological Gardens*, trans. Geoffrey Sircom (New York: Dover Publications, 1964).

⁶⁶ Matthew Chrulew, “Preventing and Giving Death at the Zoo: Heini Hediger’s ‘Death Due to Behaviour,’” in *Animal Death*, ed. Fiona Probyn-Rapsey and Jay Johnston (Sydney: Sydney University Press, 2013), 221-38.

The two examples discussed, knot-tying orangutans and chile-eating cats, are instructive because of the *surprise* that they generate (which requires further speculation about meaning, expectation and activity), the *initiative* that was taken by the primates and felines, the *social* settings involving both inter- and intra-species communities with their own forms of intersubjectivity and co-rationality, and the *emplacement* in which their activity was part of a dynamic, relational territory that is shaped by mutual inhabitation. Both examples also reveal profoundly interesting singular activities. The objection of “contamination” or “disturbance” by humans has served to occlude the study both of meaningful dimensions of hybrid human/animal communities and of significant innovative activity in nonhuman animals. That animals in close contact with humans perform such anomalous activities as knot-tying and chile-eating is not a methodological failure; on the contrary, this commingling of worlds and its productive transformations is precisely what needs to be investigated.

A bi-constructivist methodology seeks ways to construct accounts of the ways that animals construct their worlds. It highlights that invention and interpretation are part of both animal activity and ethological research into it. Rather than trying to bracket the humans out of the picture, the human staff and visitors to the Jardin des Plantes for Wattana or the human apartment cohabitants for the cats, bi-constructivism pays heed to precisely this interface as a crucial aspect of the phenomenological and social setting and a real and significant element of animals’ being and ecology. To reject these settings as human built environments would be to overlook the inhabitation and emplacement at the heart of such places. Wattana’s enclosure may have humans present at times, but it is primarily an orangutan territory, and the apartment may also have humans, but it is primarily a feline territory. It is not that the humans taught Wattana to tie knots or the cats to eat chiles—this is far from what occurred. Rather, in these territories and communities the orangutan and the felines took the initiative to do so. In studying these activities, the latitude was left to the animals to themselves perform and interpret them—and doing so not only revealed the character of their lives, but enriched that of their human cohabitants.

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