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Narrative, Meaning and Multispecies Ethical Ontologies

Introduction. Critical posthumanism, by problematizing the notion of a strict binary division between human and nonhuman, throws into question a great deal of assumptions about both human and nonhuman animal meaningful experience. Meaning is a concept traditionally — in Cartesian metaphysics, for example — thought to mark the emergence of the human from the nonhuman.[1] Although few theorists today would subscribe to his metaphysics explicitly, Descartes's substance dualism plays a formative role in conceptualizations of human/nonhuman distinction. The reflexive ability to think about one's thoughts, via language, purportedly allows for the kind of abstract thinking that engenders autonomous human decision-making. As a thinking being able to place oneself at a distance from the compulsions of the body, the emotions, and the immediate environment, the human is said to be free to act in accordance with rational thought. This relationship between thought, language, and autonomous action is deemed constitutive of the human and set off against a deterministic, mechanistic, uncomprehending, and ultimately meaningless nature. Critical posthumanism troubles both sides of this binary, questioning the rational and autonomous image of the human while arguing that plenty of nonhuman animals experience their lives in ways that are meaningful for them.[2] To say that meaning-making is ubiquitous far beyond the human makes a concept of meaning highly relevant to formulations of multispecies ethical relationships.

An analogous extension of the concept of narrative, however, might seem too highly suggestive of a uniquely human linguistic ability, or a uniquely human capability for complex symbolic thought, to do much work for multispecies ethics.[3] A notion of nonhuman animal narrative subjectivity seems inextricable from charges of anthropomorphism, inaccuracy, and misrepresentation. If such a conceptualization of narrative cannot address these critical concerns, it may ultimately undermine its own potential ethical utility, serving not only to make nonhuman animals too human-like, but also diverting attention away from species-specific forms of meaning-making and the ethical implications they hold. Yet claiming narrative as a constitutively human capability implies a further claim about human identity that must, in light of contemporary critiques of humanism, be placed under critical scrutiny. Trying to isolate the purely human in relation to the concept of narrative leads to a number of complex and compounding questions from a critical posthumanist perspective: Do nonhuman animals narrate? Or is narrative perhaps better described as something humans do

which has analogues in the meaning-making practices of other species? What difference does a notion of narrative make that a carefully theorized concept of meaning-making does not? What kind of relationship between human and nonhuman does one's concept of narrative reflect? How do humanistic, artistic, and scientific forms of knowledge and their disciplinary mixtures, blind spots, and overlaps get mobilized or elided in these debates? What happens when concerns for precision and accuracy in the portrayal and understanding of nonhuman lives clash with ethical strategies desperately needed to counter ongoing, intensifying crises of ecological devastation, nonhuman animal suffering, and mass extinction?

The first part of this essay brings together some important reflections on nonhuman animal narrative from within recent environmental humanities scholarship that work to reposition the concept of narrative in relation to an ontology that moves beyond human/nonhuman and nature/culture dualisms. Perhaps the most important articulation of such an ontology for a concept of nonhuman animal narrative is that offered by Val Plumwood. Efforts to reposition the concept of narrative following Plumwood also draw heavily on Jakob von Uexküll's theoretical biology and his understanding of meaning-making processes. I draw out and develop some key points of connection between nonhuman animal narrative and an Uexküllian concept of meaning in more detail than has been done so far. Attempts to extend a notion of narrative beyond the human raise difficult questions of representational accuracy. To address these questions, I turn in the second part of the essay to recent narratological literature on nonhuman animal narrative, drawing mainly on David Herman's efforts to outline a narratology beyond the human. Herman's investigations lead from considerations of representation in fiction to animal agents in life writing and beyond, contextualizing the question of nonhuman animal narrative in relation to Plumwood's dialogical ontology and Uexküll's *Umwelt* theory. Plumwood and Herman show how articulating a cultural ontology that recognizes the human as part of a broader ecology of selves entails careful experimentation with forms of narrative beyond the human.

Dialogical Ethical Ontology, Meaning, and Narrative Beyond the Human. In her essay "Nature in the Active Voice," Val Plumwood argues that overcoming Cartesian dualism means re-animating matter by embracing a view of the natural world as creative and agentic: "In re-animating, we become open to hearing sound as voice, seeing movement as action, adaptation as intelligence and dialogue, co-incidence and chaos as the creativity of matter. The difference here is intentionality, the ability to use an intentional vocabulary. Above all, it is permission to depict nature in the active voice, the domain of agency" (125-126). Describing intentionality beyond the human means extending and in some cases reconceptualizing key terms such as meaning and

agency, and it is in this context that Plumwood also mentions narrative: "We need to rethink concepts of meaning and accident in relation to the non-human world, and to question the reductive and human-centered frameworks that depict places in nature, often rich in narrative, as the product of meaningless coincidence" (124). Plumwood's critique of Cartesian dualism, as well as her call to conceptualize forms of cognition and communication beyond the human, echo insights put forth by Uexküll nearly a century ago, when he argued forcefully against the Cartesian paradigm in biology. In this section I describe how some of Uexküll's key ideas — his critical account of the influence of Cartesian dualism in biology, his *Umwelt* concept, the complex play of openness and opacity characterizing organismic relations, and his dynamic view of meaning-making — provide support for or otherwise resonate with Plumwood's approach.

Modern science, from Uexküll's perspective, marginalizes certain kinds of meaningful experience, particularly those which have a corporeal dimension, and posits far too absolute a distinction between human and nonhuman. Uexküll's theory of *Umwelten* is meant to counter the tendency to place organisms within a Cartesian spatial grid, a single world perceived the same way by all. Uexküll saw this tendency as an anthropocentric residue caused by inappropriately applying models from physics to biology ("An Introduction" 109). Humans under the influence of Cartesian thought dis-articulate space from their bodies. Rather than space being something that is experienced dynamically and bodily, Cartesian thought imposes an impersonal understanding of space, stretching out in all directions and decentered from an experiencing subject. Objects in Cartesian space are to be comprehended primarily in terms of their extension, and all other qualities, now deemed secondary, are treated with suspicion due to their association with unreliable sensory experience. This way of describing phenomena is fine for physics, Uexküll argues, but it is absolutely wrong for biology because it excludes from the beginning the entire perceptual side of life, which should constitute virtually the whole of biology's subject matter: "The consequence of this was that scientists began to deal with the world in the way a deaf person deals with a street organ. The turning of the roller, the vibration of the tongues and the aerial waves, these things he can establish — but the tune stays hidden from him" ("The New Concept" 114). Uexküll wants to shift the inquiry into life away from a perspective that emphasizes outside forces acting on matter to elicit a reaction. For him, biology should be the science which asks how organisms perceive and respond to the world as it exists for them: "Every animal is surrounded with different things, the dog is surrounded by dog things and the dragonfly is surrounded by dragonfly things" (117). Such a view is incompatible with Cartesian metaphysics, which conceives of human/nonhuman

distinction as an absolute difference between two fundamental types of substance. For Descartes, everything on Earth with the exception of the human mind is made up of the same inert matter, whose fundamental quality is extension in space. Human minds, in contrast, are neither inert nor extended in space. Human thought is alone among worldly phenomena in that it has the capacity to act without first being acted upon. Nonhuman animals, from this perspective, would lack any subjective dimension capable of anchoring agency.

Uexküll argues that such dualist, mechanistic accounts of behavior should be replaced by laws analogous to those governing melody, harmony, and counterpoint in music. Each organism has its own *Umwelt*, akin to a space or stage on which a life is played out (*A Foray* 144). It is built up by the sense organs, which help set the dimensions of this stage. Uexküll describes the *Umwelt* of an organism as being like a soap bubble that perpetually surrounds it. The soap bubble has a double significance, as Brett Buchanan explains (23). On one hand, it delimits the boundaries of a given organism's *Umwelt* — it constitutes the world as that organism perceives and lives it. On the other hand, it represents a boundary for the observer: it is a reminder that an organism's perceptual world is never entirely available for inspection. Yet most organisms are also imbricated in complex relationships with an environment and with other organisms throughout their lives. As much as the concept of *Umwelt* implies enclosure of an organism in its own meaningful world, it also implies that those worlds consist of meaningful relationships. Uexküll's writings suggest that meaning must be understood in terms of relations among organisms within specific ecological contexts. Uexküll defines behavior as a combination of perception (*Merken*) and action (*Wirken*) that can only be comprehended by understanding the role of meaning in living systems as what ties perception and action together. He argues that perception and action are connected in a kind of feedback loop called the functional cycle: "In every functional cycle, the same perception-effect process is repeated. Indeed, one can speak of functional cycles as meaning cycles whose task is determined to be the utilization of carriers of meaning" (*A Foray* 150). As an organism gains experience in their *Umwelt*, the resources they are able to bring to new experiences are affected accordingly: "Since every action begins with the production of a perception mark and ends with the impression of an effect mark on the same carrier of meaning, one can speak of a functional cycle, which connects the carrier of meaning with the subject" (145). The *Umwelt* conveys the idea that the world as experienced from the point of view of the organism depends overwhelmingly on that organism's physiology and what that physiology allows for. Every species gathers, unifies, and engages with stimuli in their own species-specific ways. This process engenders a wide variety of *Umwelten*, ranging from a single functional cycle processing only one stimulus to a multitude of interweaving functional cycles.

Every organism has its *Umwelt*, yet the shape or style of each Umwelt can vary dramatically among species, and in many cases among individuals. How can such dramatic variation be expressed within the common conceptual space of the *Umwelt*? According to Uexküll, an organism's behavior is directed by what can become meaningful for them. Meaning depends on physiology, personal history, and relations with other organisms and objects in the wider environment. Meaningful experience only makes sense within this self-relational context, which would seem to make hierarchical divisions among forms of life suspiciously abstract. There does not seem to be any common ground between two *Umwelten* that could be isolated or de-contextualized in order to serve as a basis for ranking behaviors or capabilities. Uexküll illustrates this incommensurability by contrasting how a human and their dog companion both relate to their shared home. If you saw your home and the objects it contains from your dog companion's perspective, you would most likely conclude that this is an incomplete description of your house, because a dog's experience of what is significant would omit too many things that have significance in the house for a human. Uexküll points out that a human's description of a forest would also be likely to leave out most of what is significant in the forest for other organisms. Uexküll does not say this, but it is implicit that a dog who lives in a house with humans would also have a perspective on the house that would not be exhaustively describable from a human point of view. A dog who makes themselves at home in a human house would have their own familiar objects, routines, affective attachments and ways of orienting themselves within that space. To place the differences in meaningful relations formed within the house by a human and a dog into some kind of more/less hierarchical order, therefore, would be to ignore crucial self-referential, corporeal, and experiential dimensions of meaning. Human language in particular and human meaning-making in general are often described as unique in that they allow access to more of the great many different sorts of phenomena which can be experienced. Human meaning-making enables perhaps more features of phenomena, more connections among these phenomena, and more variable responses than the meaning-making systems of other animals. The perceived differences in scale that separate human and nonhuman meaning-making can make any comparability between human and nonhuman experience seem marginal and misleading. Narrative can be difficult to accept beyond the human, since it is so clearly bound up with forms of language, memory, and cultural tradition that appear indelibly human. However, beyond this radical, linguistically mediated expansion of meaning-making that purportedly distinguishes the human, a facility with meaning-making often described somewhat vaguely as "richness," Uexküll suggests that what are common among forms of life are self-

referential, dynamic, relational processes that ground and give rise to diverse forms or styles of meaning-making. Paying close attention to these fundamental, general, and widespread aspects of meaning helps to enable a different ontological view of human/nonhuman animal similarity and difference than one informed by Cartesian dualism. This ontological shift allows for a different perspective on the concept of narrative.

Uexküll suggests that what affects an organism and what that organism affects are entangled, and taking this entanglement seriously is instructive. Individuals are never fully separable from the relationships in which they participate. Rigidly demarcating perception from action or stimulus from response, while often analytically necessary, is always at least partially reductive, de-contextualizing, and incomplete. Uexküll suggests that the problem of meaning is not adequately conceived as a question of how a stimulus might impinge upon the senses of an organism. This way of framing the problem cuts off much of the context in which lived experience unfolds. It creates the illusion that an organism can ever encounter an object in isolation or in a neutral, unmotivated state. A stimulus does not dictate an organism's behavior in most cases. Stimuli must be noticed, they are often sought out, and organisms must respond to or interpret them in some way. Precisely what it means to notice or interpret a stimulus varies from organism to organism, and in many cases how a stimulus is received depends on what other activities the organism is engaged in. The organism/environment relationship is more sophisticated and deserves richer descriptions than strict mechanism and linear causality can provide. The organism/environment relation is best described in dynamic terms: "Every subject spins out, like the spider's threads, its relations to certain qualities of things and weaves them into a solid web, which carries its existence" (*A Foray* 53). Each organism comprises a series of dynamic relations with those aspects of the external world that are meaningful for them. An organism can survive as long as these relations continue to be made successfully. Differences among organisms amount to variations on the kinds of relational threads that continually connect self and non-self.

One of the most important of these relational threads in which meaning-making is situated is an organism's relationship to its past and future. What processes are already underway that might condition or color an encounter between organism and environment? Uexküll argues that organisms do not encounter objects in a contextual void, as if there were no dynamic, complex web of relationships — to self and the body, to relevant environmental features, to past experience and future needs — through which the same object may be experienced in many different ways. Uexküll gives the example of a hermit crab reacting to the presence of a sea anemone (*A Foray* 95). The

crab will behave toward the sea anemone differently, according to what needs are most pressing for the crab. The pressing needs come first, in other words, not the anemone. Those needs are a relation to future behavior that drives present action. The present action is likewise informed by the recent past (whether the crab has eaten recently, for example). These relations to external phenomena emerge, in turn, from a dynamic of self-relation. Humberto Maturana and Francisco Varela, in their collaborative endeavours to develop the concept of autopoiesis, see living as a process in which organisms are unified sets of relations engaged in the act of re-creating their own components (*Autopoeisis*; *Tree*). Autopoiesis is the dynamic process of self-maintenance by way of self-creation that gives an organism autonomy as a unified whole, and which also gives it autonomy from any deterministic, passive relation to an outside environment. In the process of autopoiesis, organism and environment are both in constant states of transformation. Meaning arises within such a self-relational context. A living system is an ongoing process that, by maintaining its organizing relations, constantly alters its structure. It is a dynamic construction of the relation between inside and outside which, through its relationship to itself, provides a context within which the world becomes accessible. This relation is a dynamic rather than static structural understanding of an organism. An organism can also be conceived in terms of multiple, ephemeral selves at different levels of biological organization, as biosemiotician Jesper Hoffmeyer explains (26). Self-relation does not occur only at the level of the holistic organism. An organism is an ongoing production of self comprised of other selves. The term "self" points to this dynamic relationship, which need not entail consciousness in any straightforward or familiar sense of that term. What is categorized as human consciousness is one self-relational process among others that together comprise human meaningful experience. Whether or not other organisms have analogous processes to human consciousness should not be the only basis for thinking selfhood.

I refer to an Uexküllian notion of meaning as process-based because for Uexküll meaning emerges via dynamic, temporal, context-specific, self-referential, recursive, relational processes. Because these relational processes may manifest in radically different ways across species, an ethical theory that takes them into account must focus on developing open-ended, communicative, and context-sensitive conceptual frameworks capable of promoting care across particularity and difference. Plumwood argues that philosophers have for the most part neglected specific ethical relationships between humans and nonhumans, limiting themselves to debating the applicability of abstract concepts such as intrinsic value and moral considerability. As a result, they avoid the task of developing an adequate ethical response to the nonhuman world. Responding adequately to the nonhuman, Plumwood argues, means developing

communicative ethical frameworks that include them as participants. It means articulating alternative notions of human virtue that motivate us to care for nonhumans as subjects. These alternative virtues can be sought, she argues, by developing a dialogical ethical ontology that enables richer, less reductive ways of individuating, configuring, and describing the world. Openness and attention are stances that underly "dialogical and communicative relationships of sensitivity, negotiation and mutual adaptation of the sort we need in the context of the environmental crisis" (*Environmental Culture* 169-170). One of the aims of a dialogical ethical ontology is to counter arbitrary species value hierarchies. Interspecies equality in morally relevant categories can be expressed in terms of sameness or identity, but it can also be formulated in terms of difference. Sameness, Plumwood argues, is too simplistic because it is too reductive. Equality grounded in difference, however, can lead productively to a notion of incommensurability or non-ranking. Interspecies equality, if it is grounded in difference, can be a way of showing the inadequacy of hierarchy: "between beings with very different and only intersecting capacities, ranking is not possible in any accurate or meaningful way" (173).[4] Non-ranking is a meta-ethical principle that minimizes hierarchical thinking and approaches cross-species conflict in context rather than falling back on general principles that purport to class beings into the categories of valuable and expendable (174). Uexküll's concept of the *Umwelt*, by articulating a species-specific notion of meaning-making irreducible to a single standard which could be abstracted in order to serve as a measuring stick for comparing disparate forms of cognition, helps to show the inadequacy of hierarchical thinking and serves as a starting point for conceptualizing affinity across difference.

Plumwood offers a pathway for thinking affinity across difference by arguing for a post-Cartesian concept of mind grounded in something other than human-like consciousness: "A post-Cartesian reconstruction of mind that emphasizes intentionality, for example, could enable us to extend our recognition of mind-like qualities much more widely into the world and give better recognition to radical difference" (*Environmental Culture* 176). For Plumwood, extended formulations of intentionality and mind comprise a counter-hegemonic practice of openness to agentic and dialogic potentialities beyond the human. Part of such a practice involves describing nonhuman animal subjects as narrators. She calls this the intentional recognition stance: "Being able to conceive others in intentional terms is important to being open to them as possible communicative, narrative and ethical subjects. Extending intentionality to the non-human is crucial for extending to them a narrative conception of ethics" (177). Intentional description is also characterized by Plumwood as a way of moving away from Eurocentric, colonialist aspects of anthropocentric humanism: "Acknowledging the legitimacy of intentional modes of description of the non-human world is also

necessary if western philosophy is to avoid its implicit eurocentrism in dismissing as 'primitive' or less than rational the non-western cultures that often frame the world in thoroughly intentional and expressly narrative, communicative and agentic terms" (178).

Thom van Dooren and Deborah Bird Rose credit Uexküll with being one of the first systematic thinkers of what they refer to as nonhuman storying. Uexküll's understanding of animal worlds as subjective, meaningful "life stories" arising from complex feedback loops of perceptions and actions lays important groundwork for later ethological, philosophical, and biosemiotic, among other, research projects. Narrative is what, for van Dooren and Rose, connects one event to another within a specific context that produces meaning: "The significance of narrative is in the meaning-making that connects the lives of living beings to the worlds they inhabit" ("Storied-places" 4). At the same time, however, it is not at all clear whether Uexküll himself or many of those theorists who take up his project in different ways would accept even a heavily qualified notion of nonhuman storying. Van Dooren and Rose are, as they point out, taking this research in new directions. Specifically, they extend Plumwood's dialogical ethical ontology by proposing a concept of nonhuman storying that incorporates key aspects of an Uexküllian understanding of meaning. As van Dooren and Rose point out, narrative can facilitate and relate together radically different meaning-making practices: "Unlike many other modes of giving an account, a story can allow multiple meanings to travel alongside one another; it can hold open possibilities and interpretations and can refuse the kind of closure that prevents others from speaking or becoming" ("Lively Ethography" 85). Because stories are ongoing, revisable, and able to incorporate complexity, narrative forms are ideal for thinking multispecies community in shared, overlapping worlds.

Plumwood argues that intentionality and narrative are key aspects of an ethical approach sensitive to selves in context: "Narrative ethics, supplying context and identity, can help us configure nature as a realm of others who are independent centres of value and need that demand from us ethical relationships and responses" (*Environmental Culture* 188). Plumwood argues that narrative is important for constituting the moral identity of actors and actions.[5] Intentional description enables narrative, which provides context and reveals relationships. Van Dooren and Rose follow Plumwood in describing nonhuman animals as narrative subjects. They ask what a minimal notion of storying, capable of identifying a wide range of selves, might look like. Importantly, they argue, a concept of storying need not include the capacity to tell stories to another, only the ability to construct a storied experience of the world

("Storied-places" 4). Accounting for minimal storying would be a means of marking sites of meaningful experience. Embodiment and memory are two essential aspects of meaning-making that form the basis of a concept of minimal storying. Plumwood argues that embodied communication is one site from which meaning-making may be describable as narrative. Embodied action and the ability to identify and respond to it constitute one crucial source of interspecies communication: "Reading embodied action is part of all our lives, and is the common language of embodied beings" (*Environmental Culture* 192). Embodied action must be approached in broad and open-ended terms with an eye toward countering biases in favor of human-like communication (193). Joshua Russell describes an embodied, communicative aspect of interspecies encounter that suggests the presence of narrative: "Animal narrativity describes the qualitative, felt sense that stories are present in animal bodies, gestures and relationships. It also situates narrative within the more-than-human world, rather than categorizing it as a uniquely human characteristic" ("Animal Narrativity" 146). Van Dooren and Rose propose a broad concept of story that "emerges out of an ability to engage with happening in the world as sequential and meaningful events" ("Storied-places" 3). Narrative does more than place events in chronological order; it forges meaningful relations among those events and situates them within a wider context. Narrative is the term van Dooren and Rose use for describing both what connects events together and what distinguishes them as discreet: "The significance of narrative is in the meaning-making that connects the lives of living beings to the worlds they inhabit" (4). Memory can be intergenerational or genetic, it can condition or derive from lived experience, in some cases it can be communicated, and it is often bound up with future projection (13). Identifying different forms of memory and attending to embodied communication are part of a practice of openness to forms of narrative beyond the human: "But living well with others can never be about just learning to tell new stories; it must also involve learning new kinds of attentiveness to the stories of others — even if they are unspoken or are told in other-than-human-languages" (*Flight Ways* 78).

Van Dooren and Rose pursue a narrative ethics by asking how different populations of animals understand, negotiate, value, and actively shape their places. They refer to these meaningful multispecies temporal and spatial relations as storied-places ("Storied-places" 1). Storied-places are sites of multispecies encounter. For a place to become a home, there must be successful negotiation amongst its denizens. Storied-places, then, are also multiple overlapping and entangled meaning-making practices that range beyond the individual. Van Dooren and Rose describe places as embedded in histories and systems of meaning. It is not that meaning is projected onto a landscape — meaning and matter are co-constitutive. Other animals are often physically and conceptually de-contextualized from their places by humans, usually with disastrous

consequences. One way to place other animal lives more carefully into context is to find ways to understand them as forming meaningful relations with their places, and storying is one term that can convey these meaningful relations. Van Dooren and Rose work through the concept of storied-places by focusing on the philopatric practices of little penguins and flying foxes near Sydney. These distinct populations are not akin to collections of genetically driven machines operating in a neutral space: "As with the penguins, for whom a burrow is far more than habitat, flying foxes inhabit not just trees but worlds of meaning" (16). They situate their studies of little penguins and flying foxes in large urban settings. Learning to co-exist in these places involves developing an ethic of conviviality that is adaptive and receptive: "Conviviality thus requires that we make an effort toward inclusiveness, that we endeavor wherever possible to make room for that other in our activities in shared places" (17). The concept of storied-places serves to highlight the meaning-making practices that transform ecological settings into homes. Storied-places divert thought away from a Cartesian view that conceives the world as empty space populated by isolated individuals. To form ethical attachments to those nonhuman residents whose storied-places overlap with ours is to take account of their meaning-making practices and negotiate new, more amicable multispecies relationships.

One of the aims of nonhuman animal narrative is to re-embed human meaning-making practices alongside those of other species. David Herman's expanded concept of narrative reframes storytelling and interpretation within a trans-species ecology of selves (*Narratology* x). Narrative is not, for Herman, a uniquely human capability, and it can be geared toward indicating and mapping multispecies entanglements just as easily as it can help to deny them. Drawing out this positive potential is a crucial component of the ethical task laid out by Plumwood: "At issue is a culture that, through forms of imaginative writing as well as philosophical, political, jurisprudential, and other discourses, fosters, first, a process whereby humans come to recognize themselves as inextricably embedded in and dependent on more-than-human environments, and second, a process whereby other animals come to be recognized in turn as part of human culture(s)" (155). In *Narratology Beyond the Human*, Herman develops a cross-disciplinary approach incorporating narratology and cultural studies of animals and human-animal relationships. Narratological concepts and analytic resources, he argues, have yet to be fully applied to animal- and human-animal studies, while the study of human/nonhuman multispecies ecological and cultural entanglements holds the potential to reshape how the practice of narrative is understood. Herman makes an instructive comparison between his project and recent work in anthropology which seeks to reposition the human subject within a wider ecological context.[6] He pursues a

concept of narrative that is applicable beyond distinctively human experience: "This model resituates processes of storytelling and story interpretation, as well as the analytic frameworks that have been developed to study those processes, in a trans-species ecology of selves, marked by a prolific allocation of possibilities for subjective experience across species lines" (x). The next section examines the question of nonhuman animal narrative from the point of view of recent work in narratology. Critics question attempts to represent nonhuman minds faithfully, stressing the inaccessibility of subjective experience to rigorous scientific study. They point out that disciplinary divisions engender very different standards when it comes to describing nonhuman animal minds. Yet as Herman points out, there is no easy way to draw lines separating what is and what is not an acceptable form of nonhuman animal narrative.

Narratology, Nonhuman Subjectivity, Disciplinary Divisions, and Mental Continuity. In his seminal essay "What is it like to be a Bat?" Thomas Nagel argues that a first-person, phenomenological experiential perspective cannot be assimilated to a third-person, scientifically objective perspective. There will always be a remainder or gap between the two, and this gap increases exponentially when the experience in question belongs to a nonhuman animal. A bat's experience is likely to be very far removed from that of a human, and the subjective qualities of bat experiences are almost entirely inaccessible to scientific methods, which means that there is no way to ensure that representations of them would be accurate. To pursue detailed accounts of nonhuman subjectivity that build on or otherwise complement Plumwood's pioneering work necessitates addressing and accounting for the partial opacity and inaccessibility of nonhuman experience. To be effective, representations of nonhuman minds must be carefully managed, contextualized, and qualified. Despite these difficulties, representations of nonhuman animal experience can be powerful strategies for challenging anthropocentric cultural assumptions about species hierarchies, nonhuman agency, and human identity. As Herman points out, literary animal stories are a crucial resource for challenging anthropocentric value hierarchies: "By modeling the richness and complexity of "what it is like" for nonhuman others, stories can underscore what is at stake in the trivialization — or outright destruction — of their experiences" ("Storyworld/Umwelt" 159). The same set of events in a storyworld[7] can take on multiple and sometimes radically divergent experiential profiles for different agents (158). The tension between two different accounts of a nonhuman animal's experience (as Herman demonstrates, for example, in his analysis of the graphic novel *Laika*) dramatizes the damage that is caused when a subject's experiential perspective is undervalued or ignored. The representation of Laika's suffering from her perspective, juxtaposed with the way it is elided in other representational strategies placed within the same frame, helps to illustrate how taking meaningful experience seriously can

counter anthropocentric interspecies value hierarchies. Herman introduces a sliding scale ranging from what he terms course-grained to fine-grained modes of representing experience. How subjects negotiate opportunities for action can be represented from outside their perspective (course-grained), or from within their perspective (fine-grained). In examples like *Laika*, it is the contrast between mind-ascribing and mind-eliding modes, rather than the fidelity of the representations of Laika's experience, that performs the critical function. Even in these cases, however, accuracy in representations of nonhuman minds matters. A highly implausible or extremely anthropomorphic representation of Laika's experience would not be as effective as one which takes into account the fact that she is a dog.

To begin to address the issue of accuracy, Herman maps a range of representational strategies employed in nonhuman animal narratives.[8] The most anthropocentric end of the spectrum, which includes forms such as allegory, is a virtual mapping of human subjectivity onto the nonhuman animal. Anthropomorphic projection is at the midpoint, characterized by the use of human language, facial features, and other anthropomorphic elements to convey nonhuman animal experience. What Herman terms zoomorphic projection differs from anthropomorphic projection in that it uses human elements to draw analogies to convey "what it is like" for nonhuman experiencing subjects. Anthropomorphic projection involves familiarizing the nonhuman, therefore, while zoomorphic projection more often employs the nonhuman in the task of defamiliarizing the human ("Storyworld/Umwelt" 174). The least anthropomorphic approach Herman labels Umwelt exploration. Umwelt exploration draws on Uexküll's theoretical biology to develop methods for analyzing attempts to emulate how a particular animal engages with a surrounding world. Herman's invocation of the Umwelt suggests that it matters who is and who is not a self. Not all experiences are the same, and not all nonhuman animal narratives need be read as anthropomorphic projections of human subjectivity. Herman suggests via his classificatory scheme that nonhuman animal narratives can be constructed with more or less attention and care to the specificities of species, even if they remain inevitably exploratory.

In contrast to Herman's approach, Bernaerts et al. conceptualize all forms of nonhuman narration in terms of a double dialectic of empathy and defamiliarization. For them, nonhuman narrators encourage readers to empathetically project human experience onto beings that are not expected to have such experiences. Because they are not human, however, these nonhuman narrators serve to defamiliarize aspects of human experience:

> What is often at stake in non-human narration is the ability to acknowledge similarity and otherness at the same time, to recognize the ratness of the rat, the monkeyness of the monkey and the humanness of the rat and the monkey as well as the ratness and the monkeyness of humans. In that way, stories narrated by non-human animals can destabilize anthropocentric ideologies. By giving a voice to non-human animals and facilitating empathy, these narratives can place them on a continuum with humans, rather than constructing them as opposites. ("The Storied Lives" 74)

Nonhuman narrators in this scheme would serve specific purposes such as satire, didactic functions including ethical lessons incorporating phenomenological "what it's like" experiments, or strive to de-objectify inanimate objects in favor of animistic accounts of the world. However, empathy and defamiliarization, as Bernaerts et al. describe them, are too general and too human-centered to comprise an analytic framework capable of accounting for the specific requirements of portraying the experience of another species. This becomes clear when they include inanimate objects together with nonhuman animals in their analyses. The authors do not ground empathy in encounters among distinct selves, but limit its scope to the projection of human-like qualities onto nonhumans, which makes it hard to understand such an empathetic relation as having the ethical force capable of overcoming dualism in favor of mental continuity among species alluded to in the above quote. According to Bernaerts et al., nonhuman narrators "undermine the idea of a stable and unified human identity, and question the concept of humanity" (75). But if nonhuman animal narrative is only the projection of human experience onto nonhumans, then does it matter whether the projection captures something accurate about the other animal? It is difficult to see how a truly empathetic relation capable of putting into question both anthropocentric humanism and the dualism it maintains could arise solely from such a solipsistic practice of projection. As Plumwood points out, empathy and the ethical frameworks it is bound up with are about dialogue and the recognition of relationships rather than projection: "I am not talking about inventing fairies at the bottom of the garden. It's a matter of being *open to experiences of nature as powerful, agentic and creative, making space in our culture for an animating sensibility and vocabulary*" ("Nature in the Active Voice" 126; emphasis in original).

Herman, following Plumwood, argues that narrative can act as a bridge between human and nonhuman by figuring the *Umwelten* of creatures different from ourselves. He claims further support for this position via enactive cognitive science, which

describes the mind as distributed across brain, body, and world. The enactive approach suggests that minds arise in the interplay between an intelligent agent and the world they inhabit (minds are not isolated interior or immaterial). As Alva Noë explains in *Out of Our Heads*: "Mind is life. If we want to understand the mind of an animal, we should look not only inward, to its physical, neurological constitution; we also need to pay attention to the animal's manner of living, to the way it is wrapped up in its place" (Noe 42).[9] The enactivist model especially refrains from a simple description of the mind as what exists between perceptual inputs and behavioral outputs. Enactivists do not posit firm divisions between action, perception, and cognition. Herman describes how enactivist cognitive science accounts for the organism/environment nexus which grounds cognition and underlies both human and nonhuman meaningful experience:

> This synthesis of post-Cartesian ideas of mind with ethological work provides grounds for pursuing research premised on the continuity rather than the discontinuity between human and nonhuman experiences. New questions for research, and new metrics of value, emerge when human as well as nonhuman experiences are grounded in agent-environment interactions; across species these interactions differ in quality but not in their basic structure. ("Storyworld/Umwelt" 163-164)

The assertion of cross-species mental continuity does not itself ensure that a concept of narrative is an appropriate tool for mapping this continuity, however. For Bernaerts et al. narrative can only raise, but not address, the problem of knowing "what it is like" to be another animal. For them, following Nagel's assertion of a gap between first- and third- person perspectives, there are important disciplinary constraints that prevent literary narratives from being acceptably rigorous sources of knowledge of nonhuman animals, because literature cannot lead to an "objective phenomenology" ("The Storied Lives" 76). Their solution to this impasse is to point out that literature does not aim to do scientific description or to provide accurate representations of nonhuman minds. Rather, literature works on the values and meanings embedded in human experience, keeping the question of other, nonhuman animal worlds suspended (76). Nonhuman narratives, they argue, can only create the *illusion* of experiencing the world from another animal's perspective. It is something that happens only inside the mind of the human reader, in other words.

Marco Caracciolo further problematizes the idea that a literary narrative can faithfully represent a nonhuman animal mind, pointing out that any such attempt simultaneously exposes the limits of the human imagination. Imagining the perspective of another

animal in a narrative may throw human assumptions about other animals off balance, but not without pointing to its own biases. There is thus a built-in limitation in nonhuman narrative practices. Caracciolo contrasts representation of nonhuman minds in literary narratives with recent efforts to make phenomenology useful for cognitive science.[10] These projects have very different goals, methods, and disciplinary constraints, and Caracciolo argues that their differences have important implications for attempts to blend literary and scientific accounts. He cites Herman's use of Uexküll in his description of the category of *Umwelt* exploration as one problematic elision of this gap. Although, as Caracciolo acknowledges, scientific and literary accounts can influence each other (and in the case of Uexküll's *A Foray* and many other examples, they blend together), the disciplinary differences between them matter:

> Granted, literary (imaginary) accounts of animal *Umwelten* may build on existing scientific knowledge, and they may serve a heuristic function in advancing it. This points to the feedback loop between literary and scientific explorations of mind, which Herman himself has often productively highlighted. Yet bringing to light this feedback loop should not lead to collapsing distinctions between a literary project and a more scientifically oriented phenomenology. ("Three Smells Exist" 486)

Human experiences are difficult to describe in detail, Caracciolo argues, but phenomenological methods have been refined to produce accounts of "what it is like" for humans to experience a wide range of phenomena. Nonhuman experiences cannot be accounted for in the same way. We can only make very general descriptions that lack crucial yet inaccessible details. Literary description can go far beyond reliable scientific description, but only because it is not subject to the same rigorous disciplinary constraints, and that is why it is not trustworthy. Caracciolo argues that literary accounts build on presuppositions (they become plausible to the degree that they accord with beliefs about the world), while phenomenological description brackets them. Realism in literary representation of nonhuman minds is achieved, he argues, via a three-step process: a literary representation must resonate with readers' expectations and beliefs; it must be detailed enough to offer what appears to be a holistic account of nonhuman animal experience; and it must draw on familiarity with everyday life in a way that is defamiliarizing in order to show a set of cognitive abilities that is distinct from the human (487). If these conditions are met, the representation will appear convincing. It gives rise to what Caracciolo calls a cognitive illusion. A scientific phenomenology, on the other hand, needs to bracket imagination and presuppositions in a way that literary practices cannot: "a principled science of experience should be able to bracket presuppositions and sideline the researcher's imagination... If we draw a

dividing line between literary narratives and the project of building a science of experience, as I try to do in this article, what function can be ascribed to fictional accounts of animal phenomenology?" (488). The function, Caracciolo argues, is to make apparent the limits of human knowledge.

The project of building a science of experience has never been entirely confined to the inside of any one discipline, however. Uexküll helps make meaning a key concept for thinking the nonhuman, necessitating and enabling a cross-disciplinary investigation of meaning-making that now draws closer those forms of life it had once helped keep apart. That Uexküll was a scientist, and that *A Foray*, his most celebrated work regarding nonhuman worlds, is a highly literary account intended for a popular audience,[11] makes his work one particularly interesting site for thinking the relations between the sciences and the humanities as well as between the human and the nonhuman. Uexküll is far from unique in seeking to bring his scientific approach to nonhuman animal experience to a popular audience. Susan McHugh traces a complex web of influence running through the production of 20th century ethological knowledge, cultural representations of exotic and charismatic species primarily via visual media, and the narrative weaving of nature and culture, scientific and humanistic inquiry in popular ethology books. Animal stories tell us about disciplinary boundaries and transgressions. McHugh points out that while literature has long been tasked with defending human exceptionalism from the cold rationality of the sciences, figures such as Jane Goodall and Konrad Lorenz have employed literary depictions of nonhuman life, complete with embellishments and fictional accounts, to make these sciences accessible beyond their borders. Although she does not explicitly do so, it would be easy for McHugh to place Uexküll as a key figure in this lineage:

> While groundbreaking ethological studies provide the basis for policy and other changes in the ways in which people live with animals in industrialized societies, best-selling ethological narratives of life in the field influence broader imaginative engagements with elusive species like the great apes that are otherwise largely mediated through film, video and digital media. Obscuring the more mundane realities of data-driven science, such stories promote instead popular ethologists themselves as skillful storytellers. But in so doing, they also forge links in chains of literary influence, raising questions about how this pioneering scientific field traces its roots back to fiction, and continues to send out shoots through visual narrative forms. (*Animal Stories* 212)

McHugh argues that, from Anna Sewell to Frans de Waal, nonhuman animal narratives do important work to improve the treatment and understanding of the more-than-human world, and they sometimes lend support for ethological work in the field as opposed to the lab. In such cases, an excursion into literary worlds can double back recursively and affect funding priorities within the sciences. The effects of present-day scientific insights also affect literature, not only in terms of what is produced today but in how literary accounts of the past are read differently: "Now that scientists are identifying the interdependence of life forms even below the cellular level, the pervasive companionship of human subjects with members of other species appears ever more elemental to narrative subjectivity, a dark matter of sorts awaiting literary analysis" (2). These examples suggest that, when the sciences and humanities mix, the effects are neither unidirectional nor predictable, but diffractive. How does the work of translation from scientific study to popular literature parallel other cross-disciplinary movements? How does disciplinary authority work in these scenarios?

Caracciolo is certainly correct to point out crucial disciplinary differences between a scientifically informed phenomenology and a literary narrative practice. Yet claiming that a scientific phenomenology is the only legitimate way of rigorously accessing and accounting for nonhuman experience would severely weaken any possibility of a dialogical ethics. One would ultimately be forced to call positions like Plumwood's largely fictional or illusionary, because assumptions about nonhuman agency integral to a dialogical ethics would quickly overstep what can be verified by a highly regulated scientific phenomenology. For Plumwood's dialogical ethics to perform the work of shifting human understanding of nature away from Cartesian dualism, nonhuman animal narratives cannot be conceived merely as cognitive illusions. Moreover, if the legitimate function of literary animal narratives is to point out the limits of human knowledge, then calling all non-scientific animal narratives fiction may also dramatically affect their power to challenge anthropocentric assumptions. If one of the presuppositions we have going into a reading (which, in Caracciolo's formulation, comprise a necessary aspect of literary realism) is that it bears no resemblance to actual animals or their experiences, then wouldn't this undermine their effectiveness? Fully utilizing the resources of a narratology beyond the human, Herman shows, means relocating the task of demarcating between reliable knowledge and wild imaginative projection. Rather than trying to adjudicate proper and improper uses of narrative at the level of discipline or genre, such questions cannot be abstracted from particular instances of individual nonhuman animal narratives themselves, treating representational accuracy as one consideration among others within a complex and shifting cultural context. Herman agrees with Caracciolo that efforts to present nonhuman experiences in literary texts in the attempt to critique anthropocentric

attitudes enact the appropriation they are trying to counter, but Herman sees this limitation as suggesting the need for these texts to show their constructed nature ("Animal Worlds" 429). He follows Plumwood and others in thinking more deeply about how academic disciplines, cultural assumptions, and multispecies ecologies are entangled with one another in ways that confound any notion that they can be neatly demarcated. Herman offers such an expanded view of narrative in his hermeneutic reading of Thalia Field's *Bird Lovers, Backyard*. Field interweaves narration with commentary on the nature of narrative itself, and plays with normative conventions that mediate traffic between the register of action (motivations, goals, projects) and the register of events (movements in time and space). Herman's discussion of Field suggests that, rather than simply offering an account of "what it is like" for any particular nonhuman animal, narratives can actively incorporate, address and animate these questions ("Hermeneutics" 18).

Narratology beyond the human innovates analytical tools for drawing out how complex cultural assumptions are reworked in nonhuman animal narratives. Rather than a series of claims about animal minds purporting to be accurate representations, nonhuman animal narratives can themselves be interpreted as sites of contestation and debate concerning multispecies ecologies. Plumwood's call to re-animate matter entails using a notion of narrative capable of shifting human cultural assumptions away from Cartesian dualism. Questions of realism and accuracy do not disappear in these contexts, but Herman's work helps to show that nonhuman animal narratives cannot be classified as mere illusions or anthropomorphic projections that disrupt species differences which would otherwise, from a different disciplinary location, be clearly marked out.

Conclusion. Building on Eileen Crist's assertion that there is no neutral language when it comes to describing nonhuman animal behaviors and minds (*Images of Animals* 10), van Dooren and Rose knowingly risk the charge of anthropomorphism in order to pursue a more inclusive mode of accounting for nonhuman meaningful experience: "This context requires us to develop a language that is capable of prompting recognition of similarity and responsibility, between embodied, social creatures. 'Storied-places' and an ethics of conviviality provide one such language" ("Storied-places" 5). They also point out that storied-places cannot be fully accounted for, and that the absence of a comprehensive understanding is not an invitation to abandon this practice in favor of one which purports to be exhaustive (9). For these reasons, nonhuman animal narratives are strategic, context-sensitive, experimental, and exploratory, which means that they will remain open to skepticism and charges of

anthropomorphism. But as an ethical strategy, a notion of nonhuman animal narrative is a way of aligning oneself with a commitment to developing more companionable multispecies relationships. Nonhuman animal narratives, as they are developed in a multispecies ethics of conviviality, are about making, rather than representing, worlds. Plumwood offers an ontological ethical framework that refuses to hold up the project of building more equitable multispecies communities until universally agreed-upon representations of nonhuman subjectivities arrive, as Rose points out: "she was not making truth claims about the world, but rather was asking what kind of stance a human can take that will open her to a responsive engagement in relation to nonhuman others" ("Val Plumwood's Philosophical Animism" 97). Plumwood's ethical approach focuses on facilitating human access to a nonhuman world full of meaning: "Rather than querying others, it asks the human to query herself, and it seeks to open the human to the experience of others in the contexts of their own communicative and expressive lives" (98).

At the same time, however, it matters how nonhuman meaningful experience is conceptualized, identified, and responded to. Narrative does not apply to all animals, nor does it apply to every action taken by an animal, human or nonhuman. Narrative is also at risk of drawing attention away from more precise modes of accounting for divergent forms of lived experience. The tension between attempting to make room for nonhuman meaningful experience (which is an ethical necessity) and the impossibility of doing so with full confidence is not resolved in literary practices that incorporate and dramatize these tensions. Employing a concept of narrative beyond the human is an ethical act, but one that must be undertaken with care.

In the first part of this essay, I describe how Uexküll's *Umwelt* theory offers a way of understanding meaning that can support Plumwood's dialogical ethical ontology. For Uexküll, the human *Umwelt* is both partially open to and entangled with others and partially closed and untranslatable across species. It is not a realm of subjective experience that can be transcended to reach purely objective knowledge. As Plumwood, van Dooren, and Rose point out, being in relationship means being responsive to and striving to be open to others within the limits of one's communicative and expressive capabilities. Narrative would not simply be a projection of the human onto the nonhuman but a way of seeking better relationships, using the most effective conceptual tools available to us. The second part of the essay draws on Herman to show how nonhuman animal narratives incorporate and keep alive rather than obscure and elide questions of representational accuracy. An ontological context that emphasizes entanglement across difference does not take the partial inaccessibility of nonhuman minds as a valid reason to avoid engaging with them. On the contrary,

reconceptualizing the cognitive, communicative and affective worlds of other animals is a necessary prerequisite for living well with them. Since we live in a time of escalating ecological crisis, building a more viable multispecies future is also an urgent ethical necessity, and extending a notion of narrative helps this process. Just as there is no neutral language for describing nonhuman animal behaviors and minds, there are very few neutral ways of forming relationships with them. We already know what kinds of relationships an ontological framework influenced by Cartesian dualism brings into being. Uexküll, Plumwood, and Herman help us imagine new ones.

Notes

1. Noam Chomsky argues that Descartes was correct to distinguish the human on the basis of the uniquely creative and malleable nature of human language: "The essential difference between man and animal is exhibited most clearly by human language, in particular, by man's ability to form new statements which express new thoughts and which are appropriate to new situations" (*Cartesian Linguistics* 59). For Descartes, nonhuman animals are like machines in that they can only react to stimuli within carefully circumscribed contexts, such as crying out when harmed. What they cannot do, in his opinion, is respond meaningfully: "But it is not conceivable that such a machine should produce different arrangements of words so as to give an appropriately meaningful answer to whatever is said in its presence, as the dullest of men can do" (Descartes, quoted in *Cartesian Linguistics* 59). Jacques Derrida points out that: "Now, when it comes to the relation to 'the Animal,' this Cartesian legacy determines all of modernity.... Descartes's 'text' is of course not the cause of this large structure, but it 'represents' it in a powerful systematicity of the symptom" (*For What Tomorrow* 65).

2. For a clear and comprehensive critical posthumanist critique of the rational and autonomous image of the human, see Braidotti's *The Posthuman*. The following passage from Elizabeth Grosz's *Becoming Undone* offers an evocative account of what the humanities might become once the meaning-making practices of humans are recontextualized alongside those of myriad others:

> ...if there are a hundred thousand potential languages, expressive impulses, and modes of bodily communication, from human language to the dancing of bees and the song performances of birds, to the chemical language of cells themselves within every living body, then new notions of collectivity, new notions of social production, new modes of linguistic analysis are waiting to be born, waiting to be commensurate with and adequate to the multiplicity of life-forms to which they apply. A new

> humanities becomes possible once the human is placed in its properly inhuman context. (*Becoming Undone* 21)

3. David Herman shows how the concept of narrativity — what makes a text a narrative — has in most cases been conceived as intimately bound up with human subjectivity (*Narratology* 156, 339). Eduardo Kohn argues that symbolic thought is a uniquely human form of semiosis (*How Forests Think* 133). In this essay, I do not attempt to rigorously parse narrative forms into categories such as fiction/nonfiction. Because I am discussing theorists who are working to shift the concept of narrative onto new ontological ground, the question of how to classify forms of narrative must be reconsidered from within this new conceptual arrangement. This is a complex issue and ranges far beyond the scope of this essay. I seek instead to outline some of the general features of this new approach to narrative and its relations to ethical theory and concepts of meaning. For a careful discussion of genre and other modes of categorization as they relate to more-than-human narrative forms, see Herman, *Narratology*.

4. Matthew Calarco offers a helpful discussion of the advantages and disadvantages in conceptualizing human/nonhuman animal distinction on the basis of identity, difference, or what he refers to as indistinction. For Calarco, Plumwood is a paradigmatic example of the indistinction approach, which he also endorses (*Thinking Through Animals* 61).

5. Marc Bekoff and Jessica Pierce make a similar point in their book *Wild Justice*. They point out the necessity of employing a form of "narrative ethology" to help make sense of the behavior of other animals, while also discussing the difficulties in utilizing narrative strategies for scientifically rigorous ethological studies (36-37).

6. See for instance Ingold, Kirksey and Helmreich, and Kohn.

7. Herman defines a storyworld as the world as it is projected by a narrative — built up by the writers as well as the interpreters of the text (*Narratology* 340).

8. For a more detailed discussion, see Herman, *Narratology*.

9. See also Varela, Thompson, and Rosch's *The Embodied Mind*.

10. Caracciolo draws primarily on the work of psychologist Russell T. Hurlburt.

11. See Brentari 135.

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