



ARTICLES

Animals, Plants, People, and Things

A Review of Multispecies Ethnography

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■ **ABSTRACT:** This article defines multispecies ethnography and links this scholarship to broader currents within academia, including in the biosciences, philosophy, political ecology, and animal welfare activism. The article is organized around a set of productive tensions identified in the review of the literature. It ends with a discussion of the “ethnographic” in multispecies ethnography, urging ethnographers to bring a “speculative wonder” to their mode of inquiry and writing.

■ **KEYWORDS:** animal studies, multispecies ethnography, political ecology, posthumanism

To Begin: Multispecies Wonder

Isabel Duncan, a scientist in Sara Gruen’s entertaining novel *Ape House* (2011), describes her relationship with the apes under her care, saying, “Over the years, they’ve become more human, and I’ve become more bonobo.” Upon hearing this, John Thigpen, a reporter who is visiting Duncan’s research facility, is struck by a rare moment of trans-species clarity, “like he’d been allowed to peek briefly through the crack.” The urge to peek through the crack that separates humans from other species certainly compels much of the wide-ranging “animal turn” in the social sciences, philosophy, cultural studies, and the humanities. And, if the “crack” is a metaphor for the uneasy wonder that characterizes the multispecies divisions that complicate our lives, then this scholarship has served as an optic for peering deeply into the divide, while at the same time, helping us rethink the “problem of the human,” as Erica Fudge has so aptly described it (2002: 8).

We have always been interested in the relations of people, animals, plants, and things. In anthropology, for instance, the classic taxonomies of social difference are based on multispecies relations, albeit through the materialist perspective of adaptive or “subsistence strategies” (e.g., Leeds and Vayda 1965). Consider the !Kung’s epic five-day giraffe hunt across the Kalahari Desert, which John Marshall so eloquently evokes in his film *The Hunters* (1957). Cattle are central and definitional to almost every social institution of Nuer life in E. E. Evans-Pritchard’s



ethnography (1969), a reference point from which our broader understanding of pastoral life continues to pivot. Horticulturalists, such as the Yanomami and the Tsembaga, become who they are in their swidden gardens. We are indebted to the labors of draft animals and cultivated plants for the rise of agricultural societies and the nation state (K. Anderson 1997; Childe 1928). Geographers, aligned more closely to physical rather than human geography, began to map the spatial distribution of animals in the late 1930s, expanding on this to explore the human influence on animal geographies in the 1950s and 1960s, which led to a reconsideration of *place* in relation to animals (see Philo and Wilbert 2000 for overview).

Animals and plants have served as repositories of totemic power (Leach 1964), structural order (Lévi-Strauss 1968), sexual innuendo (Geertz 1973), symbolic ecology in the context of global capitalism (Biersack 1999), and ethno-ecological knowledge (Berkes 2008; Conklin 1954; Nazarea 1999). Archaeologists have long demonstrated that the boundaries between human and nonhuman animals are much blurrier than our Western contemporary dichotomies allow, as the papers from the World Archaeological Congress of 1986 reveal (Ingold 1994). Human geographers have thoughtfully explored how certain animal species, such as salmon in Japan (Waley 2000) or wolves in the Adirondacks (Brownlow 2000) are critical to the construction of rurality and place-based identities. Building on Donna Haraway's insights (1993), important scholarship has demonstrated how animal representations and constructions of animality (Fanon 2004; Kosek 2006; Ryan 2000) reveal complex negotiations of colonial, gendered, and racialized categories of difference.

Yet multispecies ethnography differs considerably from these examinations of humans, animals, and plants. We define "multispecies ethnography" as ethnographic research and writing that is attuned to life's emergence within a shifting assemblage of agentive beings. By "beings" we are suggesting both biophysical entities as well as the magical ways objects animate life itself. Much of the literature considered multispecies ethnography has focused on the relations of multiple organisms (plants, viruses, human, and nonhuman animals), with a particular emphasis on understanding the human as emergent through these relations ("becoming"). We have expanded our understanding of multispecies ethnography beyond this focus on "organisms." Our broader approach stems from our concerns about reifying perspectives that see life bounded in bodies, a critique of multispecies ethnography we consider well founded (TallBear 2011). For this reason, this review incorporates some of the rich body of ethnographic research that predates the "multispecies" trend yet speaks to the ways anthropologists and geographers have provided valuable insights into alternative epistemologies and ontologies.

Multispecies ethnography engages several related endeavors in philosophy and social theory that seek to reconsider nature and society (object-oriented ontologies, hybrid geographies, post-structuralist political ecology, etc.), decenter the human in ethics and theory (posthumanism), investigate science and technology, as well as experiment with alternative epistemologies (affect and nonrepresentational theory). Though we cannot provide a thorough engagement with these diverse intellectual projects here, we do suggest—following Arturo Escobar's discussion (2008: 126–28)—that these currents converge in a position best described as "anti-essentialist neorealism." In other words, multispecies ethnography is a project that seeks to understand the world as materially real, partially knowable, multicultural and multinatured, magical, and emergent through the contingent relations of multiple beings and entities. Accordingly, the nonhuman world of multispecies encounters has its own logic and rules of engagement that exist within the larger articulations of the human world, encompassing the flow of nutrients and matter, the liveliness of animals, plants, bacteria, and other beings.

The ethnographic of multispecies ethnography writes the human as a kind of corporeality that comes into being relative to multispecies assemblages, rather than as a biocultural given.

This reconsideration of the human represents a profound epistemic shift in the humanities and social sciences, indebted to many of the trends we discuss in this article. Rather than a topical redirection to the study of animals, plants, and other beings, or specific methodological innovations, multispecies ethnographers are making theoretical contributions by reconceptualizing what it means to be human. For the most part, our disciplines have traditionally and implicitly evoked a standardized human (a species, generally Euro-male) as the locus of orientation, and have employed various categories (culture, gender, race, ethnicity, sexuality, class) to theorize and account for human difference. This standard human served as a kind of “fixed origin,” to use Jacques Derrida’s (1978) phrase, where these categories of difference act as (often fluid) variations on the standard. While in no way suggesting that these categories of difference are not lived in real ways, often with devastating consequences, in this work we are seeing the human untethered from its fixed isolation from other beings and things. In other words, instead of solely conceptualizing human difference within an array of human categories, multispecies ethnographers are conceptualizing the human as a register of difference that emerges through shifting, often asymmetrical, relations with other agentive beings.

As shorthand, we are referring to these relations of becoming as multispecies “assemblages,” an approach indebted to the relational philosophy of Donna Haraway, Bruno Latour, and Gilles Deleuze and Félix Guattari. While distinct, each proposes an approach to understanding world making, or life, as a process of becoming through knotty assemblages of humans, other species, and things (see also Ingold 2000). We use the term “assemblage” to suggest not a mere collection of entities and things, but a complex and dynamic process whereupon the collective’s properties exceed their constitutive elements.

Kirksey and Helmreich (2010) offer an engaging and thorough account of multispecies ethnography’s genesis within anthropology, tracing anthropological interest in the animal from Lewis Henry Morgan’s *The American Beaver and His Works* (1868) through the classic ethnographies by Evans-Pritchard, Lévi-Strauss, and others, to contemporary multispecies ethnographies and related art/science collaborations. In addition, Hamilton and Placas (2011) review multispecies ethnography with particular attention to contributions to the special volume of *Cultural Anthropology* that Kirksey and Helmreich’s article introduces. Further, Lorimer and Srinivasan (2013) provide a comprehensive overview of animal geography with particular emphasis on work from the past decade. We do not seek to duplicate their thoughtful efforts here. Instead, we build from their discussion by examining multispecies approaches in the context of broader trends in philosophy, the biosciences, animal rights activism, and human geography. In doing so, we organize our review around several key tensions within this literature: animal rights and anti-essentialist ethics; ethnographies of contact, near and far; socionatural and multiple natures; species reconsiderations; and human and nonhuman politics. For the most part, we have tried to limit our review to scholarship that relies on ethnographic fieldwork for the development of evidence claims, though, as we conclude, the “multiple” requires new approaches to the ethnographic project.

Animal Rights and Anti-Essentialist Ethics

Posthumanism, in philosophy, cultural studies, art, literature, and history, has sought to decenter the “human” as a coherent, singular and Eurocentric subject, external to beings considered “of nature,” such as other animals, and from “naturalized humans,” such as indigenous peoples (see Castree and Nash 2006). Ethical concerns over the consequences of human exceptionalism to other species and the environment have motivated this move to create a philosophy of being

that resists the centrality of the human (Gray 2002; Hayles 1999; Wolfe 2009). Here we discuss the ways in which the animal welfare and rights movements in the United States and Europe have propelled the animal turn in the academy, and multispecies ethnography more specifically. We suggest that both animal welfare¹ activists and multispecies ethnographers rely on discursive strategies of trans-species recognition, though these strategies are motivated by opposing philosophical assumptions about people and animals. Out of this tension, we suggest, we see the emergence of an anti-essentialist ethics.

The animal turn in the arts and social sciences is indebted to animal welfare activism for compelling many of us to consider animals as “subjects with rights,” a social movement that has reshaped the ways we think about animal cruelty and our daily practices of consumption. Within only a couple of decades, the once radical positions advocated by a diverse animal welfare movement have become mainstream. As bodies politic, we are haunted by the images of animal torture associated with industrialized “factory” farming, laboratory testing practices, zoos and aquaria, and the wearing of animal skins. Here, we consider under what circumstances this activism has made the lives and deaths of other species visible to us and argue for further collaborations with activists who advocate for new kinds of ethical, multispecies world making.

For the most part, scholars examining animal welfare activism have concerned themselves with the movement’s philosophical debates (see Bailey 2005; Castricano 2008; Jones 2000; Whatmore 2002; Wolfe 1999;). The animal welfare movement’s foundations stem from Peter Singer and Tom Regan’s call for a more equitable world of multispecies rights. Singer argues that the “interests of every being affected by an action are to be taken into account and given the same weight as the like interests of any other being” (1975: 5). Logically, according to Singer, an animal’s capacity to suffer endows it with “interests,” and by extension, we are morally compelled to consider this suffering (1975: 8). Regan contends that animals are “subjects-of-a-life,” with emotions, desires, and social capacities akin to the human, and thus animals possess “inherent value” (1983: 283). Informed by animal biology, behavior studies, and cognitive psychology, Singer and Regan propose extending our moral considerations across the species divide to those beings that meet the criteria of either cognitive capability or sentience (see also Coetzee 1999). In the ensuing years, critics have suggested that this utilitarian form of moral reasoning stands on shaky, humanistic grounds—at its foundation, this is an animal ethics based on “the human species as the reference point for measuring other kinds of life” (Whatmore 2002: 156; see also Jones 2000; Plumwood 2002; Steiner 2006; Weil 2010).

Understanding why certain species are considered objects (and therefore “killable”) rather than subjects (and less killable) has been central to posthumanist philosophy and associated scholarship. Coetzee’s *The Lives of Animals* (1999), a philosophical treatise in the form of a novel, exemplifies these concerns. Much of this scholarship extends debates from Western philosophy (Descartes’ legacy, in particular) about the capacity of animals to be rational, intentional, conscious subjects. As Fudge (2002) has explored, these dichotomizing subject-object taxonomies are much more complicated and slippery than the opposition of human/nonhuman would suggest. Instead, certain species are historically constituted as near-human subjects (pets, for example), while the killability of other species (such as those chickens bound for the slaughterhouse) requires enormous efforts of schizo-objectification (see, e.g., Striffler 2005). Val Plumwood (1999), an ecofeminist philosopher, has troubled these categories of killability in her moving account of surviving a crocodile attack. Resisting the master-monster narrative imposed on her story, Plumwood instead realizes that large predators, such as crocodiles, force us to see ourselves as capable of being “eaten as well as eater” (1999: 145). For Plumwood, seeing

oneself as part of the food chain overturns the humanocentric culture of the West, a philosophy so different from her experience with Aboriginal Australians.

In his study of animal rights activists, Herzog (2010) found that activists are largely motivated by their emotional response to suffering animals. One woman in Herzog's study vividly recalled her first encounter with a brochure published by the People for the Ethical Treatment of Animals (PETA):

I can still remember the picture of that little monkey. They had severed his nerves, and he couldn't use his arm ... The monkeys were terrified of the experimenters... The monkeys would be hanging onto their cages, and eventually they would have to drag them out, and lots of times it would break off their fingers and there would be blood everywhere—bloody stumps. (2010: 108)

Encounters, such as this one from PETA's documentation of the infamous Silver Springs monkey case, are moments when the ordered world of species difference shatters. These are moments of such affective intensity they produce a kind of mimetic recognition of suffering's consequences. Certainly PETA—one of the world's largest animal rights organizations with three million members—has capitalized on the power of these moments of recognition to provoke social change one grainy video still at a time.

Still, while we sympathize with animal welfare activist intentions,² the movement has a tendency to naturalize animals in ways that further reifies essentialist human/nonhumans categories. As an illustration, PETA is unlikely to protest the carnivorous savagery of lions or the predations of great white sharks—as the animal welfare movement's ethical framework relegates animals to nature (with its natural laws of behavior) and humans to non-nature. For scholars interested in understanding how being human emerges through all kinds of multispecies relations—consider rural hunters, as an example—the animal welfare movement's essentialist dichotomies of human and nonhuman produce one of the tensions at odds with the debt we feel toward the movement's political provocations.

Even with these tensions in mind, contemporary philosophy of the nonhuman has absorbed the lessons from the animal welfare front—particularly, that moments of multispecies recognition are the pathway to an inclusionary, less humancentric ethics of living and dying. Here we follow Deborah Bird Rose in defining “ethics” as “Interactive dramas of encounter and recognition” (2011: 12). In other words, ethics does not depend on moral reason's stable hierarchy of difference (see Cavalieri 2008 for discussion). Instead, ethics is a practice of recognition. Recently, Hache and Latour (2010) describe what they are calling an “axiology” (or theory of value) that is predicated on sensitizing ourselves (a form of inoculation) to the nonhuman in ways that produce scruples. We do this not by extending the categories of what deserves moral consideration to nonhumans. Instead, Hache and Latour insist, moralism emerges as we hesitate over the ontological distinctions between humans and other beings.

While our activist companions often rely on moments of recognition that provoke us to recognize suffering, ethnographers seek to sensitize us to the wonders and contradictions of multispecies encounters. For instance, Haraway maps the transmutations of Chicken Little's imagined travels through the global assemblage of factory farms, export-oriented development projects, and other sites of techno-capital exploitation (2008b). Yet she ends this account with an image of hope. It is an image of children in a Biology class, peering in wonder at a developing chick embryo. These “cracked open eggs” do not offer “innocent beauty,” instead, Haraway suggests, they “renew the meaning of awe” in a world of multispecies, multicultural, and multiordeed inequalities (2008b: 37).

Ethnographies of Contact, Near and Far

The research methods vary in the scholarship we review in this article, but there is a notable methodological emphasis on choosing research sites that foster multispecies encounters, what Haraway (2008b) has called “contact zones.” These diverse sites of multispecies contact have expanded the field of ethnographic inquiry to encompass the routinized sites of human-animal encounters (homes, pet shelters, zoos, factory farms), the intimacies of the laboratory and field station, as well as sites of interest to more environmentally concerned scholars (forests, deserts, the sea). In all cases, these are ethnographies of connection, which employ ethnographic techniques to examine life as it happens at the intersections of multiple beings and things.

Several scholars have found Latour’s network approach (referred to as Actor Network Theory [ANT]) generative in their mapping of multibeing zones of contact (Callon 1986; Latour 1996, 2005; Law and Hassard 1999). For example, Cori Hayden (2003) investigates the brine-shrimp mediated network of bioprospecting for plants in Mexico, a network of animal-plant-human, sometimes suspended, animations. Diane Rocheleau (2011) has found ANT helpful in her approach to understanding the web of relations that dynamically orders forest and agricultural ecologies, grassroots politics, and knowledge regimes in the Dominican Republic.

The *rhizome*, as formulated by Deleuze and Guattari (1987), offers another logic for understanding the nonhierarchical, relational connections of becoming that characterize multispecies assemblages (see Biehl and Locke 2010; DeLanda 2006). Laura Ogden (2011) mobilizes the rhizome to map the productive relations of hunters, mangroves, alligators, and their mythic counterparts in the swamps of southern Florida. As Ogden describes, the Everglades is a landscape where *rhizophora*, or the red mangrove, is constantly on the move, creating new lands and lines of being (2011). While Kirksey (2012) thoughtfully challenges the seemingly endless possibilities of rhizomatic world making, offering instead, the “banyan tree” as a way of thinking about the structured constraints (and their capacities of capture) that shape West Papuan politics.

Much of the multispecies scholarship is indebted to Haraway’s engagement with companion species, a contact zone of mutual dependencies and asymmetrical relations (2003, 2008b). Haraway (2008b) has directed our attention to the profoundly intimate, contradictory, and loving relationships we have with the animals that share our homes and sometimes beds. There is a politics to this intervention, as the mundane, often-feminized, domestic zones of *cum panis* challenge ethnography’s continued reverence of the exotic. Other scholars have followed her lead, ethnographically detailing the lived experience and spaces of animal-human companionships and mutual constitutions (Lorimer 2010). Rebekah Fox (2006), for example, examines how British pet owners negotiate contradictory philosophies about innate animal instinct and anthropomorphic ideas about pet intentionality and emotions, while Emma Power (2008) explores the role of pets in making “more-than-human” homes in Australia. In another example, Shir-Vertesh (2012) suggests that pets are treated as “flexible persons,” reflecting the tenuousness of their status within Israeli homes.

Domestication is another form of asymmetrical companionship. Recent scholarship urges us to move away from thinking about “domestication” as a process of exploitation and accommodation, to a perspective that accounts for interspecies mutuality (Cassidy 2007: 6; see also Zeder 2006). Shipman (2011), in her examination of the 2.6 million years of human history, argues that human evolution and adaptation was predicated on our intimate connection with and domestication of other species. Like contemporary debates about “native” and “non-native” species, this scholarship challenges the boundaries of “wild” and “domesticated,” highlighting the agency of animals in these transformative relations (e.g., Noske 1997).

Agustín Fuentes (2010) shows how the “mutual ecologies” of macaques, Balinese people, and tourists in the Balinese temple forests resist wild and domestic binaries. In a very different setting, Beth Greenhough (2012) examines how viruses and humans “meet and mingle” in the Common Cold Research Unit in Salisbury, England, where both human subjects and wild virus strains are engaged in incomplete forms of multispecies domestication. In his study of expert animal handlers at Nepalese elephant breeding center, Piers Locke shows how human-elephant relations emerge out of complex, and contradictory, negotiation of the wild-domestic continuum, where elephants are divine, human-like persons, and “collude in their captivity” (2011:36).

Piers Vitebsky (2005) thoughtfully complicates the wild-domestic continuum in his sweeping ethnography of Eveny reindeer herders in Siberia, a landscape where the “Age of the Reindeer” still reigns. In the Eveny world, animals give their lives to protect humans (a form of trans-species substitution), animals come back to life in the form of other animals, and humans take the form of animals at critical moments of life and death, with reindeers central to these wild-domestic negotiations. Accompanied by evocative photographs, Natasha Fijn’s ethnography (2011) explores the “co-domestic” relations of herd animals (yaks, cattle, horses, sheep and goat) and herders (men, women, and children) in the Khangai Mountains of Mongolia.

Yet multispecies zones of contact are both intimate, as the tactile immediacy these ethnographies of companionship and domestication evoke, and bound up in global multispecies diasporas and processes of change. The challenge for multispecies ethnography, as is the challenge for ethnography in general, is to capture the richness of the intimate while mapping the intimate’s trajectories of global connection. Anna Tsing and collaborators in the Matsutake Worlds Research Group offer a promising model for this type of investigation.³ In this collaborative project, diverse contact zones—from the forests of Oregon to the kitchens of Tokyo—generate explorations of the ways these mushrooms companionably figure within a global web of interdependence which encompasses rural mushroom pickers, foresters, scientists, cooks, buyers, and the complex microecologies of the mushroom’s mycorrhizal mats (Tsing 2010, n.d.; Tsing and Satsuka 2008). By telling the stories that these contact zones ignite, Tsing and colleagues are able to evoke the immediacy of the ethnographic and generate an investigative mode that maps the rhizomatic reach of the mushrooms’ worlds.

Socionatural and Multiple Natures

Multispecies ethnography builds on several decades of scholarship that has chipped away at the essentialism of nature. Environmental historians, cultural geographers and anthropologists have offered several approaches to theorizing the often hidden humanity of nature. Much of this work has focused on the ways in which naturalized environments reverberate with cultural significance, acting as repositories of cultural memory, false memories, mythology, social identity, and as sites of production and reproduction. In a similar sense, political and feminist ecologists have interrogated the intersections of global conservation discourses, ecological claims, and proprietorships and the impacts of these processes on local populations and livelihoods. Williams’s (1980) critical history of the idea of nature, Cronon’s (1996) reappraisal of wilderness, and Latour’s (1993, 2004) continued interventions into the “great divide” of nature and culture have guided this scholarship in anthropology and geography on “place,” “landscape,” and protected areas. In another complementary trajectory, Tim Ingold (1995: 77), in his sustained exploration of “dwelling” as a mode of being-in-the-world, has sought to “dissolve the orthodox dichotomies between evolution and history, and between biology and culture,” with particular

attention to the ways movement and sentience serve as modes of attunement for occupying the Earth (see also Ingold 2000, 2011).

Instead of an apolitical wild nature, many geographers and anthropologists frame the world and its inhabitants as hybrid entities, or socionatural assemblages (Braun 2002; Castree and Braun 2001; Heynen et al. 2006; Whatmore 2002). For instance, Escobar's *Territories of Difference* (2008) incorporates diverse lines of evidence, from geologic to political histories, in examining how Afro-Colombian attachments to nature convey a deep sense of rootedness between traditional cultural practices and their watery worlds. As Escobar shows, this is a mixing kind of place. Plants and water mediate the natural, the human, and the supernatural worlds. Here, fishermen benefit from the warnings of *visiones*, who inhabit the region's forest and aquatic spaces. These visions reflect a cosmology that follows "a cultural and ecological logic" that enables enduring subsistence practices and challenges to modernist nature (2008: 118).

Some ethnographers have thoughtfully borrowed from the literary and holistic traditions of "natural history" writing, though employing an approach that fully entangles social and natural histories (Braun 2002). For instance, Hugh Raffles (2002) lyrically reimagines the natural history of Amazonia by showing how indigenous communities, corporate interests, and scientists materially and intimately participate in the production of this scale-defying landscape. Raffles brings a Benjaminian sensitivity to his account, where the past and the present are emergent and resistant to tidy, linear description, as this is a landscape "where land and water become each other, and where humans and non-humans are made and unmade by those same sediments that bring histories and natures flooding into the immediacy of the now" (2002: 182).

With equal attention to water's transformative powers, Julie Cruikshank (2005) shows how glaciers animate the landscape and lives of Tlingit and Athapaskan peoples in the Saint Elias Mountains separating Canada and Alaska. In Cruikshank's account, glaciers "are sensitive to smells and they listen. They make moral judgments and they punish infractions" (2005: 3), and they do so within contexts of dramatic geophysical and social change associated with colonial encounters and the Little Ice Age. Glaciers are not the backdrop to culture, or the repositories of history and tradition. Instead, the lives of glaciers and people are "profoundly relational" to the extent that "everyone understands how humans and nature co-produce the world they share" (Cruikshank 2005: 366).

Yet other work in ethnography and philosophy extends this coproductionist framework by treating the world as constituted by multiple natures and ontologies. For example, Flusser and Bec's (2012) vampire squid treatise presents both squid and human "being" (*Dasein*) through contrasting ontological perspectives. While Flusser and Bec forge multispecies connections between the sea's deepest depths to the terra firma of human history, for them the "human" is an abstract embodiment of Western philosophy. Conversely, Tyler (2012)—in his encyclopedic "bestiary"—dismantles Western philosophical claims of human exceptionalism through the lens of "wild animals," both real and imagined.

Vampire squids are objects of fascination, as well as disgust, because they live in landscapes (the lightless depths of the sea's abyss) that seem utterly unlivable and starkly nonhuman. But, as it turns out, the vantage point of the deepest, darkest sea, as Flusser and Bec show, is prime for contemplating the prism of multiple natures. Stefan Helmreich (2009) makes the "alien ocean" close and personal in his ethnography of the scientific exploration of seas off Monterey, California. Like Flusser and Bec, Helmreich recognizes the power of water to generate new perspectives on life's mediations, as he says, "looking at, through, and into water requires some tangling with theory underwater" (2009:17).

Anthropologists interested in indigenous worldviews, have long documented the role of non-human persons in social life. For instance, A. Irving Hallowell, the eminent scholar of Ojibwa

culture, warned against “projecting” Western conceptions of subjectivity on other societies, compellingly illustrating the myriad ways “entities other than human beings” have personhood in Ojibwa social life ([1960] 2002: 21). Continuing this ontological turn, Eduardo Viveiros de Castro’s scholarship on Amerindian ontological perspectivism, which he has defined as how “the point of view” (perspectivism) “creates the subject” (the essence of existence) (1998: 476). As he describes, this is the “conception, common to many peoples of the continent, according to which the world is inhabited by different sorts of subjects or persons, human and non-human, that apprehend reality from distinct points of view” (1998: 469). More recently, Viveiros de Castro has explored what it means to live in Amazonian worlds “completely saturated by personhood,” where the human is always immanent (2012: 31). The potential of the human in all beings and things is hardly a comfort, Viveiros de Castro explains, as the possibility of the human concealed in everything destabilizes the certitude of one’s own humanity (2012: 32).

Ethnographies of indigenous hunting societies have richly depicted these multispecies relational ontologies. For instance, in his fascinating ethnography of Siberian Yukaghir hunters, Rane Willerslev (2007) interprets animism (the presence of nonhuman souls and spirits) as a mimetic practice related to hunting. In Willerslev’s account, spirits and humans come into being through their intimate relations and in specific contexts. Therefore, the “Yukaghir hunter, when out hunting, is both hunter and animal, and with the human community he is not simply himself but also a reincarnated deceased relative” (2007: 186). Similarly, Nadasdy (2007) describes hunting as a form of reciprocal exchange between Kluane First Nation hunters and “other than human persons.” Nadasdy, Willerslev, and others (e.g., Ingold 2012), are committed to fully engaging non-Western multispecies ontologies. They do not treat human-animal becoming as exemplars of non-Western “beliefs,” or multiculturalism, instead they take seriously the possibilities of encountering multiple natures through their ethnographic practice.

While we believe that multispecies ethnography’s focus on becoming human in relation to other species and things reflects an epistemic shift in ways we have discussed, we also urge a more productive engagement with the ontological relativism that these ethnographies of multiple natures reveal. At times, the scholarship that aligns itself with multispecies ethnography ignores the lessons we already know about the agency of non-humans in the world. Hallowell, for instance, tells this story: “Since stones are grammatically animate, I once asked an old man: Are *all* the stones we see about us here alive? He reflected a long while and then replied, ‘No but *some* are!’” ([1960] 2002: 24).⁴

Surely multiple natures and non-human persons enliven ethnographic sites outside of the Amazon and the hunters’ landscapes that Hallowell, Willerslev, Nadasdy, and others explore. Engaging this work more closely will foster the development of “symmetrical anthropologies” as Latour has described, of multinatured worlds even in the context of Western modernity (Latour 1993).

Species Reconsiderations

The biosciences provoke us to reconsider the boundaries and “natural” categories of difference that constitutes a species, including the human, as well as how we understand change in multispecies assemblages. For instance, in conservation biology, scholars are reconsidering the heuristic value of categories such as “native” and “exotic” species to science (Chew and Hamilton 2011; Davis et al. 2011), a contentious paradigm shift anticipated by social theory (see, e.g., Helmreich 2005, 2009; Lowe 2006; Milton 2000; Moore 2012). The human in conservation biology has always been an ontological blind spot, yet this reconsideration of *what species belong where* is motivated by a sense that humans are not just change agents, but also a part of complex mul-

tispecies assemblages. Traditionally, animal-plant diasporas have been considered natural only when disassociated from human agency. For instance, plants species carried across continents (as seeds) in the digestive tracts of birds are considered “natural invasions,” while dire threats to natural order if purchased at Home Depot (Dogra et al. 2010). If ecosystems are, as ecological theory posits, complex and dynamic assemblages of multiple species, including humans, then attempts to eradicate newcomers, often defined by a fairly arbitrary colonial timeline, speaks more to landscape nostalgia than science (Raffles 2011; Robbins and Moore 2013).

Species introductions and species extinctions are often coproductive processes. An edited volume on species extinctions (Sodikoff 2012) reminds us of the ways species *distinctions* are locally produced (articulating with and in contrast to global conservation and biodiversity discourses) as well as frames species extinctions as biocultural entanglements. For instance, Jill Constantino (2012) shows how the specter of extinction in the Galapagos, an archipelago valued almost entirely for its nonhuman life, catalyzes people there to claim endemic identities. At the same time, decommissioning the troublesome categories of “exotic” and “alien” leaves us to grapple with a new ethical framework for stewarding the Earth in the time of extinctions. In her remarkable book *Wild Dog Dreaming*, Rose (2011) uses the term “kinship” to describe the relationship of her aboriginal teachers to the plants and animals of their world, reminding us that for some people “endangered species” are experienced as “vulnerable and dying members of the family.” In another example, Cormier (2003) reveals how ontologies of multispecies kinship allow the Guajá of Brazil to both nurture and consume howler monkeys. Ethnographic attentiveness to multispecies kinship may help us move to a more productive politics of place and species while foregoing species essentialism (see also Fuentes 2010; Thornton 2008).

As we examine interspecies practices of mutuality, we are also rethinking the species itself, and the human as a species more specifically (Margulis and Sagan 1986; Sagan 2012; Wolfe 2003). Deleuze and Guattari (1987) offer the image of the “body without organs” as a way of thinking about the unsettled freedom of assemblages that have no foundational structure or organization. Recent work in microbiology suggests that we are all bodies without organs, or at least, organs of diverse, multispecies, bodies. Being uniquely human is being a microbiome, or part of a teeming colony of germs. Michael Specter, in an article in the *New Yorker*, describes the emergence of the colony that makes us who we are:

By the time a child can crawl, he has been blanketed by an enormous, unseen cloud of microorganisms—a hundred trillion or more. . . . They congregate in our digestive systems and our mouths, fill the space between our teeth, cover our skin, and line our throats. We are inhabited by as many as ten thousand bacteria species; these cells outnumber those which we consider our own by ten to one, and weigh, all told, about three pounds—the same as our brain. (2012: 33)

It appears the very processes that define human metabolism—the uptake of nutrients or the prevention of chronic illnesses—are processes reliant on our microbial partners (Blaser and Falkow 2009; see also Sagan 2012). Simply, as Rose defines it, “becoming human [is] an interspecies collaborative project; we become who we are in the company of other beings; we are not alone” (2011: 11; see also Haraway 2008b: 3–4).

As the “species” as a singular entity continues to be reconsidered from all fronts, rapid destabilizations in what it means to be “human” brought about by biotechnological science (genetically modified beings, transgenic reconfigurations, xenotransplantation, and the like) have generated thought-provoking considerations of the human as a bio-technical articulation (Coyle 2006; Franklin 2007; Haraway 1997; Hayles 1999). John Hartigan’s (2013) examination of the racial politics of genomic practices in Mexico, for both “races” of corn and people, demon-

strates the complex and contradictory ways racial thinking informs our understandings of what constitutes a species. Recognizing these important reconceptualizations of the species category, we hold in tension two potential interpretations of the term “multispecies” ethnography and encourage further exploration of these interpretations from scholars researching human/non-human relations. First, multispecies ethnography might entail an understanding and writing of semio-material processes, practices, and transformations from the perspective of multiple beings. In this case, the species category is not necessarily left wholly intact, but rather serves as a construct for articulating difference in a world of asymmetrical power-laden relationships. Our second interpretation allows multispecies ethnography to consider being as ontologically multiplicitous, in which being is emergent via the present material configuration of multi-being connections. In this sense, beings are no longer *reduced* to a species based on inherent capabilities (reproduction, for instance), but *become* a particular kind of multispecies through their often precarious, unpredictable, and contingent relations with others.

Human and Nonhuman Politics

Political ecology, broadly considered, has helped us to know nature as a politics and as politicized. Rain, cloud, and temperate forests, savannas, oceans, and polar expanses—all are sites of contest, development schemes, colonial and postcolonial displacements, resource wars, and capitalist expansion. For the most part, the “politics” of political ecology has concerned itself with the means by which people exert control over other people, as well as the environmental transformations (deforestation, desertification, and the like) spurred by these ideological and material assaults (Blaikie and Brookfield 1987). Paige West has thoughtfully defined political ecology as “a sophisticated contemporary theory of accumulation by dispossession and the vast effects of this ongoing process” (2012: 30; see also Biersack and Greenberg 2006; Neumann 2005; Paulson and Gezon 2005; Peet and Watts 2004). This scholarship has produced critical appraisals of the symbolic and material absorption of other beings within capitalism and other arenas of socioeconomic power—including through discursive regimes, practices of governance, and contests over resources and the equitable distribution of environmental risk.

Some of the most interesting work in multispecies ethnography seeks to understand how multiple creatures, great and small, enter the “political fray,” to use Stengers’s terms (2010). For example, Witter (in press) demonstrates how increasing conflicts with elephants in Mozambique’s Limpopo National Park are facilitating the “soft eviction” of local residents from the park. Kosek (2006), as another example, is attentive to the material and discursive power of forests to Hispano struggles over identity, rights, and access to New Mexico forestlands. Kosek explores how the forest becomes transformed in political contestations between US forest management science, which associates wilderness with notions of purity, and Hispanos, whose identity is historically bound up in the dispossession of and longing for land.

In the context of the anthropocene, certain beings, such as whales, have become over-determined distillations of conservation politics. In a poetic evocation, Katja Neves-Graça (2005) seeks to move beyond whale as specter of extinction to examine the relational aesthetics of whale hunting in a small Portuguese village. Here, following Gregory Bateson, aesthetics is an embodied awareness of multispecies connectivity, a way of recognizing “moments of responsiveness to heartbeats that are not their own” (Neves-Graça 2005: 2). At the same time, Neves-Graça offers an ethnographic aesthetics, extending Bateson’s use of the term, which elicits sensitivity to the fleeting moments of whale-hunter connectivity. Portuguese whale hunters no longer hunt whales, and the politics of whale hunting in a post-whale hunting world has created new

cetacean assemblages. Anders Blok (2011) examines how the authority of science has become highly contested in the global politics of whaling, with whales left enmeshed in an antagonistic “cosmopolitics” of multiple socionatural assemblages. In Japan, ontologically distinct whales (overabundant, fish predators) challenge the primacy of whale conservation science and the nearly universalized whale of concern (endangered, sacred, intelligent). These ontologically distinct whales enable Japanese pro-whaling politics, Blok argues.

Several scholars seek to understand how other species are politically deployed in the context of “security” and “safety.” For instance, Paxson (2008), in her ethnographic research of Vermont’s raw milk cheese industry, describes the “micropolitics” of food safety, where microbes and microorganisms found in milk proteins have become agents of public debate and regulatory concern. Juanita Sundberg (2011) examines how a range of entities—from cats, to deserts, to thornscrub—are agentive to the politics and practices of border security in the southwestern United States. In another example, Kosek argues that a new epidemiology is required to understand the current, dramatic decline in honeybee populations, one that is “mindful of how human interests, fears, and desires have become part of the material form of the bee” (2010: 651). Kosek’s fascinating article links the emergence of the modern bee to technologies of war, while others have shown how mosquitoes are both an object of state power and its *raison d’être* (Shaw et al. 2010; see also Mitchell 2002; Nading 2012). Extending insights from ethnobotany, several scholars are interested in the social power of plants (Nabhan 2004), as well as plant intelligence (Beyer 2009; Doyle 2006, 2012).

Compellingly, Bruce Braun and Sarah J. Whatmore ask us to extend our understanding of “politics” to include “the constitutive nature of material processes and entities in social and political life, the way things of every imaginable kind—material objects, informed materials, bodies, machines, even media ecologies—help constitute the common worlds that we share and the dense fabric of relations with others in and through which we live” (2010: ix). Their provocation echoes Bennett’s (2010) call to reanimate our politics by engaging vital materiality beyond the instrumentality of matter. If we are human, in part, through the liveliness of other beings, then our political theory must, Braun and Whatmore argue, account for the “performance of things and not just the actions of humans” (2010: xx). Their approach offers an avenue for reconsidering the materiality of politics, with science and technology constitutive of the bodies politic. In other words, what we mean by “politics” shifts radically when we consider the agency of objects and other beings in producing social collectives, collective action, citizens, and subjects.

Multispecies ethnography is marked by its attentiveness to nonhuman agency—stones, plants, birds, and bees have the power to transform the world in this work. This can be followed down to the microbial world that collectively (by the billions) constitute both animals and humans, such as the bacteria and virus that link elephants and humans in Sri Lanka (Lorimer 2010). Moreover, our review suggests the emergence of a very thoughtful multispecies political ecology, a kind of anti-essentialist approach that is mindful to the nonhuman in politics, though mainly politics in the classic sense of the term. We anticipate a more critical engagement with how we approach “politics” in the years to come, with Braun and Whatmore’s intervention as generative to these efforts.

To End: A Call for Speculative Wonder

In this review, we have suggested that multispecies ethnography has become a mode of attunement to the power of nonhuman subjects to shape the world and to the ways in which the human

becomes through relations with other beings. We have highlighted several tensions within multispecies ethnography, including the problem of the species itself. Last, we have linked this scholarship to broader trends, such as posthumanist philosophy, new approaches in the biosciences, and the influence of critical nature studies and ontological perspectivism.

Stengers (2010), in her consideration of nonhumans in political philosophy, reminds us that unicorns and other fantastic creatures are easily banished to the realm of “human ideas” or imaginary existents that become, for many, a testament to cultural relativism. In other words, they are unlikely subjects for serious philosophical inquiry. Perhaps this is because unicorns became somehow *detached* from the politics of life over the last couple of centuries. Yet, prior to the Middle Ages, give or take, these creatures commanded the attention of alchemists, poets, artists, and scholars. It is certainly hard to imagine living in a world where fear of unicorns could stop you from entering the forest after dark. But once that was the case.

The insights we learn about world making from multispecies scholarship helps us attend to the animicity of nonhuman and human life and understand the liveliness of trees, rocks, mountains, and apparent “objects.” As Stengers’s intervention suggests, unicorns and other fantastic creatures have world making power too. We must be careful, as we consider the parameters of how the nonhuman enters philosophy (and ethnography), to leave room for the multiplicity of the world’s magical agents. Even so, we find multispecies ethnography to be saturated with the anticipation of knowing life outside the boundaries of human experience. At the same time, it is an endeavor shrouded by concerns over human exceptionalism’s continued blindness to the world’s increasing fragility. Certainly, there is a hope that these alternative perspectives of what it means to be human will inform a new ethics of living in the world. To do so, multispecies ethnography must continue to reveal attachments to other species and things in ways that make us “think, feel, and hesitate,” to paraphrase Stengers (2010: 15). In other words, multispecies ethnography must be a mode of wonder.

Eduardo Kohn’s (2007) “anthropology of life” exemplifies this wonder. In a beautiful account of Runa relations with other species, Kohn questions the primacy of human symbolic systems, such as language, to capture the multiple nonverbal signs that circulate among multiple species. In doing so, Kohn is able to “provincialize” language, treating it as just one sign system in a broader semiotic universe (Kohn 2012). In another example, Eva Haywood (2010), in her investigation of cup corals and those who study them, offers a tactile, sensuous ethnography of cross-species communion. Using the term “fingeryeye” to suggest a “tentacular visuality” of impressionistic perception, Haywood explores how the world is known through such sensorial encounters. Hugh Raffles’s *Insectopedia* (2010) is a model of instantiated wonder. Like Roland Barthes’s autobiography ([1977] 2010), Raffles uses the encyclopedia as a generative model to order the rhizomic intimacies and affinities that connect scientists, insects, insect freaks, and others (see also Raffles 2012). Kathleen Stewart’s “worlding” project (2007, 2012) brings this curiosity to the ordinary moments of world making. Stewart offers an aesthetics of affective materiality, where connection to place, such as a wintery home in New England, is forged through the routinized practices of everyday life. In doing so, she writes with a speculative richness that reverberates with worldly truth.

These examples, and notable others, help us to begin to imagine how we can evoke life as a shifting register of multiple intensities, as an assemblage. Perhaps more important, these examples help us envision ethnographies of asymmetrical becoming, or ethnographies that are attuned to how some persons transform the earth at the detriment of fellow persons and other beings. We end this review, by suggesting that multispecies ethnography, at its heart, is a “speculative” mode of inquiry that allows for speculative modes of writing.

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■ **NOTES**

1. We recognize that animal rights and animal welfare are often separate movements with distinct agendas. However, here we use the term “animal welfare” to broadly describe activist efforts to improve human-animal relations.
2. For full disclosure, Laura Ogden makes financial contributions to PETA.
3. For project overview, see <http://www.matsutakeworlds.org>.
4. We are very grateful to Thomas Thornton, one of the reviewers of this manuscript, for introducing us to A. Irwing Hallowell’s work, and this story in particular.

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