



PROJECT MUSE®

ESSAYS



Affect Attunement in the Caregiver-Infant Relationship and Across Species

Expanding the Ethical Scope of Eros

CYNTHIA WILLETT

COMPELLING GLIMPSES into the ethical capacities of our animal kin reveal new possibilities for ethical relationships encompassing humans with other animal species. Consider the remarkable report of a female bonobo in a British zoo who assists a bird found in her cage by retrieving the fallen bird, and spreading its wings so that this fellow creature might fly away to its freedom. Or the report of a cat in a nursing home who curls up around dying elderly patients, and remains steadily by their side as they, unbeknownst to the medical personnel, pass away.¹ Or of a sacred moment of silence by a stream for baboons in East Africa.² Or of the ethics that spontaneously emerges among wolves at play.³ On the basis of extensive studies, biologist Frans de Waal argues that such anecdotes are far from rare, and that some core elements of moral understanding and compassion occur among a significant range of nonhuman as well as the human animal species. Apes, monkeys, and *perhaps* all nonhuman animals fail to display a distinctly human capacity for abstract moral reasoning. As de Waal (2006) remarks, it is difficult to tell (173–75). But our furry and feathery kin do without a doubt demonstrate rich elements of ethical response, and they often enough extend their moral concern to creatures beyond their own species. Of course, they will also bite each other's heads off or eat their own young as well. But this is just to say that animals are neither natural

innocents nor savage brutes. Like us, they belong to what post-Nietzschean philosophers might frame, somewhat ironically, as a postlapsarian world of good and evil.

What kind of philosophical approach could account for these postlapsarian genealogies of ethics? Biologists, primatologists, and anthropologists are drawing upon investigations of prosocial behavior to remap the boundaries of ethics, as for example in Isabelle Stengers's call for *cosmopolitical* ecologies of relationships (2010, 33). Such a cosmopolitics aims to encompass our kin and kind from diverse species within the ethical boundaries of common worlds. Donna Haraway discovers an opening for Stengers's ecology of relationships in the intimate encounters among co-evolving species, especially those she calls companion species (2008, 83). She argues, following Derrida, that the abstract reasoning processes of Stoic and Kantian cosmopolitan ethics remain closed to the participation of nonhuman animals as anything more than dependents, failing to observe the ways in which they act as companions, if not moral subjects. But then, what normative force might bind together an ethically attuned biosocial sphere that we as humans co-inhabit with other animal species?

To explore this question, this essay takes its cues from well-established research on the responsive, preverbal connection of the human infant and adult caregiver (Bateson 1979; Trevarthen 1984; Stern 1985, 2010; Gibbs 2001, 2010; Hansen 2004; Anderson 2006; Papoulias and Callard 2010; Willett 1995, 2001). To this research we can add new animal studies (Smuts 1999, 2001; Fudge 2002; de Waal 2006, 2009; Bekoff 2007; Molnar 2008; Haraway 2008). These animal studies provide a basis for extending an "ethics of eros" with roots in Luce Irigaray, Michel Foucault, Enrique Dussel, Africana feminism, Freudo-Marxist critical theory, and Plato (for discussions of this tradition, see Bergoffen 1997; Huffer 2009; Willett 2001)—but reconfigured in terms of social bonds across multiple animal species. In this tradition of ethics, the lack of a cognitive-based moral subjectivity that can translate into human terms does not consign nonhuman species to a mute moral status. On the contrary, some more primordial basis for relationship and meaning may weave thin but substantial threads of a postmoral ethics across regions of the biosphere.

Given the diverse modes of subjectivity among animal species, and even the lack of what we call a moral subject altogether in many species, neither ordinary modes of empathy nor of moral understanding go very far in forging multispecies social bonds. For this reason, we turn to research on "the attunement of affects" in the infant-caregiver relationship (Stern 1985). As we shall see, this attunement of affects articulates a preverbal social bond between infant and caregiver based on a non-egoistic, preconscious immersion in the rhythms and tones of life (see Willett 1995, 24–30). Our suggestion here is that the attunement of affects can thicken the basis for ethical relationships across animal species as well. We are

using the term *ethics* in contrast with *morality* to emphasize the possibilities for prosocial behavior across multiple species. Morality depends upon language and reason (cf. the Greek term *logos*), while ethics (as we use the term) can be affective and nonverbal (or preverbal, as in the case with human infants).⁴ Moreover, this postmoral ethics grows out of the connective tissue that links us with larger worlds, and relocates morality within a broader ethics of sense-giving experiences⁵ sustaining dimensions of what we would call a meaningful life. A meaningful life is not merely one of struggle, survival, self-preservation, or adaptation as postulated by some evolutionary theories; crucially, these dimensions alone cannot account for the rich affects that exemplify animal and human capacities for sharing niches in the biosphere (Haraway 2008). A meaningful life in the biosphere with other species as with our own preverbal children and our affect-driven selves is a life of attachments, or, in the terms of a larger philosophical tradition, of *eros*.⁶

A tentative glance at the extensive animal research points toward the relevance of several key elements for a multispecies ethics in human and animal interactions, including: the social attunement of caregivers and preverbal infants through rhythms, smells, affect-laden tones, and other modes of expression; the face-to-face engagement of creatures who have developed some compelling sense of a self;⁷ and the assertion of a host of what character ethics terms virtues and vices, and could translate into the animal world as resilience (or even, to use the term common through the nineteenth century, “animal spirits”), a sense of power (or agency), and norms of friendship and community. These ethical capacities weave and unweave social bonds through nuances of nonlinguistic expression or through gesture. Affect-laden elements of communicative response resonate throughout the biosocial web that diverse species inhabit through partially synchronized lives. These affects can even intimate some larger sense of time or place that at least two species, humans and baboons, experience as sacred (Smuts 2009). However, in this essay, we focus on only the most preliminary condition for a more expansive ethics: the ethical comportment among multiple animal species, or what Stern lays out albeit in a human context as affect attunement.

An ebb and flow of energy and affects among multiple channels of sensory awareness composes a dialectic of good and evil across animal species. The ethics of this flow resonates with what Stengers, Haraway, and Chris Cuomo (1998) on occasion refer to as cosmopolitan “manners” or as “mutual flourishing” (Cuomo 1998, 62). Of course, it is not yet clear what mutual flourishing and good manners means in a world of predation, malnutrition, malaria, and death. But the interest of these theorists in an ethics of fostering relationships works well with the tradition of the ethics of *eros*, which acknowledges both the inevitability of suffering and loss and the significance of nonverbal elements in our being with others. Attention to affects is the precondition

for understanding other animals as more than just dull, deterministic, or instinctual creatures without lapsing into the anthropomorphic projection of our own feelings on to them. A fuller engagement with our human capacity for affect attunement in a multispecies world—down to the most elementary level—enriches a cosmopolitan ethics for getting along with others.

A PRELIMINARY STAGE: BIOSOCIAL NETWORKS OF MICRO AND SUPERORGANISMS

The focus of our ethical concern is on the possibilities for a conscious exchange of affects between humans and other animals. However, we can set the stage for such an ethics earlier yet with scientific research on the impact of largely imperceptible transmissions of energy between humans and other organisms for moods and affects. This research tracks biosocial forces of meaningful attunement, or “structural coupling” (to borrow a suggestive term from Maturana 2009), among animal species so elementary that these forces can travel across natural and built environments without any degree of either conscious awareness or subjectivity.

Consider the partly measurable impact of minuscule organisms on human affects. A team of neuroscientists (Raison et al. 2010) theorizes that those of us living in a “cleaner, modern society” suffer from depression due to modern practices that fail to expose us to some of the smallest animals. According to these neuroscientists, there is “mounting evidence that disruptions in ancient relationships with microorganisms in soil, food and the gut” strip us of little creatures who are better known as “old friends,” and not, say, as mere parasites. This research raises the question of how we might relearn to accommodate these “old friends’, [who] have taught our immune systems how to tolerate harmless microorganisms” (2010, 1211). Given the new research on the “gut brain,” one could hypothesize that exposure to these networks of germs would make us more resilient and—to draw upon a colloquial expression that turns out to have some science behind it—gutsy.⁸

And indeed not just microorganisms, but “superorganisms” as described by various social network theories can likewise regulate the affect and physical function of nodes—aka people—through a process generally mysterious and yet also partly measurable. Consider studies suggesting that one’s friends and even one’s friends’ friends—including people we do not know—can affect any number of dimensions of our lives, including obesity patterns as well as levels of happiness. Two researchers have found that if a person’s friend, a friend’s friend, or a friend’s friend’s friend loses weight, then that person is also likely to lose weight (Christakis and Fowler 2009, 108). A happy association of friends is more likely to make for individual human happiness than lots of money, but also more so than sad friends

and sad friends of friends, and so on to what two researchers postulate as typically three degrees of separation.

But affects can also spread like a physical contagion across thousands of miles via waves of energy transmission. Whole epidemics of panic, fear, and even laughter spread through these imperceptible waves. And this happens without any personal acquaintance with other nodes (people) in the network and without anything like what we would call personal agency or responsibility for the norms or behavior that people imitate and spread to others. In seasonal depression the biosphere itself changes the mood of entire populations, as energies flow from node to node in the network without consciousness or intentionality. Even Darwin speaks of climate, soil, and wind as “agencies” that affect the evolutionary future of the organism, spreading agential power across the natural and biosocial sphere (Darwin 2006, 19).⁹ Nicholas Christakis and James Fowler portray these ripple effects as “a kind of synchrony in time and space . . . that resembles the flocking of birds or schooling of fish. Whole interconnected groups of smokers, who may not even know one another, quit together at roughly the same time, as if a wave of opposition to smoking were spreading through the population” (2009, 116). The authors continue that psychological states as well as physical diseases ranging from depression and anxiety to cancer emerge regardless of individual exertion simply because we inhabit a social milieu that harbors them (2009, 120).

Needless to say, these researchers are as perplexed as any of us would be with what becomes of that modern concept of moral responsibility. Modern moral theory (Kant’s ethics of duty and Mill’s utilitarianism) attributes responsibility to those relatively bound creatures called individuals. And indeed the metaphysics for bound substances, in contrast with erotically charged, ecstatic ones (as found in traditions of an ethics of eros), goes back at least as far as Aristotle. How do we blame nodes of networks for cascades of agential affect that occur at the level of the superorganism? Do we reinvoke the tragic ethos of premoderns and non-Aristotelians, those for whom a foul air and a symbolic scapegoat carry the toxins of damage or harm? Or do we shift away from a moral discourse of blame to a therapeutic discourse of normality, and recommend, as do Christakis and Fowler, that social policy “target [for treatment] the hubs of the network, namely those at the center of the network or those with the most contact” (2009, 133)? Perhaps neither tragic cathartic rituals nor contemporary therapeutic models of discipline and punish rest easily with those of us who are wary of the cruel and arbitrary techniques of community browbeating. But one thing is for sure: Just the attempt to draw clean modernesque lines around the problem of agency can be angst-ridden if not downright depressing.

Cycles of energy circulate through superorganisms and microorganisms to produce good and bad climates of affect and biological well-being. Patterns of

affect may crystallize into norms and thereby also through these norms mold individual behavior. In turn, waves of individual resilience or resistance (at least at the hubs of networks but perhaps elsewhere as well) may loop back around and subvert norms or precipitate large-scale climate changes in our collective moods. The loss of self-direction for individuals who at times function as nodes of networks, may be, as these theorists suggest, unsettling. However, these new models that call into question the bound self do not entail that subjectivity and agency or even, for that matter, moral autonomy are vacuous notions.

Let's take one lesson by way of analogy from the physics that plays a central role in the work of Karen Barad (2007, esp. 71–96). The discovery of the diffraction of light prompted physicists to model elementary matter as both like a particle and like a wave depending upon the measuring apparatus. Similarly, the new research on biosocial networks and in affect studies prompts us to propose that while human experience at times may indeed still take the shape of a bound and discrete moral subject (a rational or virtuous individual), at other times we function as an ecstatic node within a hive-like network of collective affect. Semi-measurable waves of kinetic and hedonic affect can suspend or otherwise play with our bounded identities, and relocate us through connections that zigzag unexpectedly—sometimes comically, sometimes tragically, sometimes mysteriously—through regions of the biosphere. An ethics of eros aims to capture the various dimensions of this zigzag through the biosphere that impact our well-being. In the meantime this counterintuitive ethics shatters any of that Western metaphysics dating from Aristotle that reifies from common sense the idea that substances in the relatively self-contained form of individuals are the sole unit of the real. Common sense sticks a bit much to the conventional metaphysics of things to grasp the fluidity of imperceptible energy waves. The wave model of energy transmission works well for mapping the impact of affects for ethics.

We emphasize, though, that—despite our wave model of ethics—all is not lost for those erotically charged creatures narrowly conceived as bound individuals. The wavelike circulation of energy and affect from microorganism to superorganism *seems* to render those of us formerly known as sovereign subjects as impersonal nodes, mere theoretical entities, playthings for scientists and policymakers or even ritual sacrifices, but otherwise unreal. However, in this new world where science and paradox are good friends, these waves of affect can accentuate rather than diminish singular personalities even as they do more than fray the edges around tightly bound identities, as they redefine our centers in our relationships with organisms and energy sources outside ourselves. As we have suggested, perhaps the most fully investigated interaction through affect exchange over the course of the past half-century is the by now very well-established patterns of affect attunement between infants and their caregivers.

The beauty of these attunements is that they open us up to the unbounded nodes that we are, but they do not by any means threaten the singularity of the transpersonal and presubjective experience that we may indeed share with any number of other living creatures—creatures who like us live in the middle zone between microscopic bacteria and superorganic networks. As every interested caregiver at some level knows, distinct styles of interaction zigzag through algorithms of wave motion to characterize our singular children as much as our pre-self selves. And as animal lovers know, simply by watching fish, algorithms of wavelike motion characterize the multitude of subjectless perhaps (who knows?) but nonetheless singular creatures with their own personalities. In short, singular styles propagate through waves of energy among diverse species who inhabit the middle zone of the biosphere.

AFFECT ATTUNEMENT AND CROSS MODAL CORRESPONDENCE IN THE MIDDLE ZONE: THE CASE OF HUMANS AND THEIR INFANTS

Attentive parents experience to varying degrees preverbal modes of communication with their infants through the often nerve-racking pains and novel pleasures of affect attunement. At even the earliest stages of infancy, children, like adults, can engage in improvisational modes of affect attunement. These modes of interaction trace out what we are identifying as the first step of the social dynamic of “call and response”—to borrow a locution from African culture that not only suits parenting well but furthermore illuminates the rich communicative texture of care—through patterns too often mistaken for boring, unadventurous, and mundane routines. This libidinally charged dynamic between infant and caregiver occurs before any sense of motives, intentions, or other more developed elements of the personality which we would identify as a self. Such a dynamic accounts for what parents may experience as the infant’s special feel—those affective tendencies that arise around nine months or so. During this earlier period, social interaction through crying, touching, rocking, and—after the first couple of months—cooing and eye-to-eye contact establishes a nuanced basis for the expression and communication of affects. The warm smile of an affable infant may beget a warm smile back from a responsive caregiver, or, as a variation, a warm hug. This communication of affects either within or across sensory modalities (visual, tactile, etc.) is called *affect attunement*.

We can examine this phenomenon in more detail through Daniel Stern’s groundbreaking research in *The Interpersonal World of the Infant* (1985) as well as in his more recent *Forms of Vitality* (2010),¹⁰ in which he explores how affect attunement may be used to share or to alter moods between variously situated individuals. The parent may respond to an irritated cry of an infant by intoning a light and soothing “there, there, there,” and the infant, who

typically recognizes the mother's voice already from before birth, may respond by calming down. More significant, the very young infant's irritated cry may be soothed just as readily through a reassuring touch as by the caregiver's modulated voice, varying the sensory mode of expression. The slightly older infant may respond to the enthusiastic shimmy of a playful caregiver with a quasi-musical cooing that matches in hedonic tone and energy. This communication of affects across sensory modes is called "cross-modal correspondence."¹¹ Such a correspondence across sensory modes can occur with precepts as well as with affects; for instance, the infant can visually recognize a particular breast with a specific dimpled texture as the same breast whose structure it had previously felt but not seen. Stern finds that the visual and the felt breast correspond with one another although they may share only some relatively abstract shape or quality in common (1985, 51).

Meanwhile, waves of affects flowing back and forth between infant and adult may establish resonances between them without any determinate properties shared in common, or at least without sufficient common properties (not even abstract properties) to determine the correspondence. Consider that the plurality of styles of sensory correspondence—for example, between different choreographies to the same musical piece—is part of the interest of art. There are as many right dance steps as there are wrong ones to any given musical rhythm and tone. Here we underscore that just as there is no accounting for taste, so too there is no rule or concept for why one response to any particular call works and another does not. After all, variation in styles makes individual expression interesting and meaningful. An "ethics of call and response" begins with rhythms and tones prompted by such prelinguistic affects (Willett 1995). What Mary Bateson (1979) describes as taking turns in "proto-conversations" gives this creative endeavor an ethical cast. The correspondence of affects opens up dimensions of ethical rapport between infants and adults before anything resembling rational agency.

Moreover, such "proto-conversations" can communicate a range of affects between two conscious creatures. Influenced by the work of Silvan S. Tomkins, Stern has distinguished affects into two types: (1) *categorical affects*, such as happiness, sadness, fear, anger, disgust, surprise, interest, shame, which exhibit both hedonic qualities and rates of arousal and activation (some of these affects require a sense of self, but others do not); and (2) *vitality affects and contours* (easily confused with arousal and activation rates in categorical affects), which express dynamic, kinetic patterns, such as surging, crescendo, or decrescendo. As Stern explains:

One can readily imagine, in fact, that the infant does not initially perceive overt acts as such, as do adults. (This act is a reach for the bottle . . .) Rather, the infant is far more likely to perceive directly . . . [the] vitality affects they

express. Like dance for the adult, the social world experienced by the infant is primarily one of vitality affects before it is a world of formal acts. (1985, 56–57; expanded in Stern 2010)

Of course, as Stern indicates, hedonic tone likewise enters into communicative exchanges with infants, who may seek the pleasant touch or the sweet milky fluid from another warm body.¹² And both types of affects can play a very rich role in cross-species exchanges. How these networks of affect produce meaningful patterns of experience is still a matter of speculation for psychologists. Yet these well-observed patterns do establish a basis for communication without assuming the presence of a subject or self.

The infant experience of “subjectless sociality” may change as one becomes an adult with changed capacities, but affects continue to impact not only our mood and well-being but furthermore our relationships with others and with the world (Willett 1995 and *contra* Stern, but his focus is on precepts). We may extend this analysis from the infant to our affective engagements with the nonhuman animal. Indeed, such a post-Nietzschean philosophical approach to subjectless subjectivity—which we find in Haraway, Barad, Stengers, and others unraveling the bounds of the human—aims to capture the felt relationships of ecstatic, unbound social creatures in ways that Enlightenment moral theories cannot. This shift in perspective does not exclude that social creatures may also express themselves as self-contained autonomous moral subjects in certain contexts, but it allows for the counterintuitive insights into subjectivity that emerge through philosophical critiques of substance-oriented metaphysics. To draw again from Barad’s postmetaphysical reflections on physics, our ethical experience fluctuates between the model of the bound individual and that of a wave. This dual model of subjectivity should unsettle prevailing narratives of the self and generate novel perspectives that account for nonverbal dimensions of ethical demeanor.

The psychological research on affect attunement in the caregiver relationship combined with the new research on biosocial networks and affect waves challenges the monolith of autonomy as the sole goal of maturity, at the same time without reducing adults to children. Building upon the insights of Freud-Marxist critical theory, Anna Gibbs remarks, “These [affects in adults] are not rudimentary, infantile, or so-called primitive modes of communication: rather, they are the essential prerequisites for, and working collaborators with, verbal communication” (Gregg and Seigworth 2010, 199). We would add that even the transmission of affects between adults and infants may draw upon a variation in sensory modes and styles of expression to communicate a significant range of affects. The infant is capable of the cross-modal exchange of affects that composes ongoing preverbal dialogue. The adult’s use of an alternative but matching mode of expression—his rhythmic moves and gestures back to the

infant's preverbal cooing—constitutes acknowledgment of and responsiveness to the infant in a style as singular as a signature, and vice versa. Without such variation in modalities between infant and adult, either party might mistake the other's response as a mechanical reaction and lose interest in the exchange. For this reason, *contra* Gibbs, straight imitation or mimicry contributes less to the constructive work of creating social bonds than the exchanges of cross-modal response. Infants and parents are veritable artists, co-producing unique musical dialogues by varying both the themes and the format of their calls and responses (Stern 1985, 139). Affect attunement across sensory modalities constitutes the basis for a call and response exchange that functions at a level that may be partly or wholly preverbal, prerational, and mysterious, and yet is vital for social bonds.

This artistry signals the social eros of creatures driven by something more than what we ordinarily understand as simple nutritive or sexual needs. Humans, their infants, and, as we shall see, a myriad of animals populate musicals of song and dance. Their affect-based exchanges may not show signs of the rational self-direction that we expect of autonomous creatures. In their communication of affect, however, creatures display the willful character that indicates singular expressions of desire. A sensitive, mild-mannered creature may turn away from a loud or rough encounter. On the other hand, a mother might respond to a phlegmatic child by attempting to jazz her up through intensifying their interactions. Affect attunement is the primary mode of expression of unbound social creatures who nonetheless have signature styles of their own.

AFFECT ATTUNEMENT AND CROSS-MODAL CORRESPONDENCE ACROSS SPECIES

To bring affect attunement into multiple species encounters we borrow our approach from Donna Haraway (2008), who contrasts her interest in animal studies with that of Deleuze and Guattari and that of Derrida, even as she begins from their poststructuralist critiques of human exceptionalism and substance-oriented Western metaphysics. Her aim is to shift the focus of ethics to the encounter between nonhuman and human animals. Poststructuralism deconstructs the mythos of the moral subject without sufficiently foregrounding what she describes as the pleasures of companionship across species (2008, 30).

Deleuze and Guattari champion a process that they term “becoming-animal.” In the chapter “Becoming-Intense, Becoming-Animal, Becoming-Imperceptible” from *A Thousand Plateaus: Capitalism and Schizophrenia*, they trace “a circulation of impersonal affects, an alternate current that disrupts signifying projects as well as subjective feelings, and constitutes a non-human sexuality” (1987, 233). This current is said to break up capitalist rhythms of repetitive drone-like work and

mechanical expression to release vital new forms of energy. This release of energy, however, does not capture the flows of affect that Haraway finds compelling in the “sentimental relationships” that she enjoys with domestic animals. Her concern is that Deleuze and Guattari’s admiring descriptions of “pure affect animals,” which they characterize as “intensive, not extensive . . . sublime wolf packs,” owes its sensibility to the “sublime . . . 1909 Futurist Manifesto” (2008, 29). According to Haraway, this aesthetic interest in the intensive energy of animal packs, rather than of individual creatures, lends itself to disdain for domestic pets and other animals with whom we engage in everyday mundane contexts (ibid).

Stern’s careful distinction between the two kinds of affect (vitality and categorical) sheds light on Haraway’s concern, offering a way to account for those cherished pleasures of companionship that she misses in Deleuze and Guattari’s aggregate of “man-becoming-dog” (Deleuze and Guattari 1987, 274 and 258). Through this aggregate a dog may transmit intensity or, following Stern, what we might distinguish as *vitality affects* in contrast with hedonic tones, let alone concept-based and narrative modes of meaning. Stern (2010) finds that vitality affects may well account not only for the enchantment of expressionist painting and modern dance but also for the aesthetics of Deleuze and Guattari’s politics. Without implicating them in futurism, the vitality affects of “man-becoming-dog” might reinvigorate the anticapitalist, anti-Oedipal anarchist that Deleuze and Guattari celebrate. But if so, Deleuze and Guattari neglect the import of categorical affects among animals. These categorical affects compose much of the basis for the “proto-dialogues” between companion species such as humans and dogs. More than intensity, affects such as tenderness and warmth account for what we seek in our intimate bonds with others. Deleuze and Guattari would not be included, then, in the tradition of an ethics of eros.

In contrast with Deleuze and Guattari, Derrida (2002), in his influential essay “The Animal that Therefore I Am (More to Follow),” focuses his philosophical interest on the responsive gaze of a companion species (in this case, his cat). Yet Derrida fails, as Haraway points out, to take the animal’s capacity for response beyond a utilitarian ethics of pity (2008, 22). She suggests that the ethical status of animals should expand beyond our attention to their vulnerability and dependence upon our care. This narrow attention to dependency obscures the encounters we might have with other creatures who invite us to “respect” them by “returning their gaze” in the “joy” of an encounter (2008, 20–22). “Can animals play? Or work? And even, can I learn to play with this cat?” she asks, and continues, “What if work and play, and not just pity, open up the possibility of a mutual response?” (22).

Haraway prefaces her thoughts on the possibilities of mutual response with two questions: “(1) Whom and what do I touch when I touch my dog? And (2) How is ‘becoming with’ a practice of becoming worldly?” (2008, 3).

Her emphasis on the encounter as the paradigmatic site of ethics, and her suggestive appeal to touch alongside the gaze as bases for sensuous encounters, bring her philosophical approach close to the tradition of an ethics of eros. But while many philosophers of eros (from Plato to Irigaray) focus on the sexual dimension of our libidinal attachments, Haraway's attention to the tender pleasures between herself and her dog serves to broaden the erotic possibilities to include friendships with animals. The tactile sociality that attunes the infant to the mother can also grace the relationship between the dog and a human companion. This foundational phase of sociality, prompting exchanges through a range of vitality and hedonic affects between infants and adults, functions also with companion animals.¹³ And in both cases to be sure, oxytocin, or (more likely in male animals) vasopressin—and, crucially here, *not* the sexual hormones—may well serve to sweeten the deal. The point is that this encounter is not (necessarily) sexual, and yet it is, as Haraway allows, erotic—based on sensuous attachments. Of course, not all animals solicit an interested response from humans (Willett 2012).¹⁴ Bunnies are cute and cuddly but tender young chickens end up more readily as fryers. Still, even humans sensitive to the big-eyed, round-faced cuteness of infants can also engage in the social play of touch, gaze, and voice with the distinct personalities of chickens. Humans can ride the waves of affect flowing back and forth among a range of animal species.

In this short essay, we cannot pursue the possibilities for ethics among animals who, unlike human infants but like adult humans, also possess a sense of self. Such an account of ethical exchanges among diverse animal selves would surely augment the present account and add a new layer of complexity toward the project of a postmoral ethics. Nor can we examine here the possibilities of ethical concern for animals who fail to evoke affects that generate social bonds (for more, see Willett 2012). Nonetheless, the broad basis for encounters through affect-attunement and social bonding opens the door for a relational ethics across a range of species. Affective dimensions of ethical encounters do not require the capacity for logos (which does not mean that they do not have some cognitive component) and dispel at this primary level of ethical response the myth of human exceptionalism. Furthermore, these affect-laden dimensions anchor our capacities for ethical engagement in the nonhuman world.

Haraway's critical stance toward human exceptionalism does not lead her to a full-fledged posthumanism as it does for Deleuze, Guattari, and Derrida. While she leaves a bit ambiguous the stance she takes between humanism and posthumanism, rejecting the categories in what she calls nonhumanism, her position places the encounter between human and nonhuman animals—their “becoming with” each other as companion species—front and center (2008, 67, and here we are not challenging the constraints of her project). The posthumanist who takes the Deleuzian spin past the human or animal

self—below the level of hedonic affects—to the level of “becoming molecule,” that is, to flows of energy and connection that occur at the impersonal level of microorganisms, obscures the meeting ground of the ethical encounter (Guilmette 2011). Like Haraway, we do not by any means reject the relevance of the molecular level of energy exchange for the encounter between creatures. On the contrary, as she states, the fact that a healthy 90 percent of the body’s “cells are filled with the genomes of bacteria, fungi, protists, and such” should shake up our commonsense notions of personal identity (2008, 3). We have argued that the impersonal micro and superorganism play a role in the background of ethics. These sub- or super-companion-level interactions impact our moods and well-being (Raison et al. 2011) but they do not constitute sensory-rich experiences between responsive creatures. Haraway’s project can be read as veering away from these “ancient friends” at the micro level except as a medium of exchange in which ethical encounters between conscious beings can occur.

Perhaps the most provocative anecdote regarding this medium of exchange occurs in the context of her discussion of what the biologists Lynn Margulis and Dorion Sagan call symbiogenesis, and, describe, rather provocatively, as “forbidden couplings” (2002, 205).¹⁵ Haraway offers as her own example of symbiogenesis a kiss with her companion dog. This intimate act of “oral intercourse” not only bonds human and dog, it also propagates viral messengers that can alter the DNA or other genetic and reproductive material on either side of the otherwise sexless encounter (2008, 15–16). Margulis and Sagan propose that symbiogenesis lays down the basis for revising evolutionary theory. This revised theory would explain the development of species not solely in terms of competition for survival and random mutations in genetic material but through friendly exchanges of genetic material via traveling microorganisms, as I interpret Haraway’s ethical project of companion species.

For Haraway, then, the ethical center for any biological exchange should be the encounter between sentient and responsive creatures. Touch between fleshy creatures serves as the prominent modality for exchange in what she describes as the “contact zone” between “coshaping species of the earth” (2008, 3). Her project urges us to not neglect this fleshy zone by, say, consigning it to domestic relations in a private realm or household. Instead, she invites us to envision this type of encounter as central to cosmopolitics, asking us to ponder “how does this touch [between the human and an animal companion] make us more worldly, in alliance with all the beings who work and play?” (2008, 5).

How could such a richly sensuous and yet limited modality of communication offer any basis for an alternative to moral reasoning and universal rules for a cosmopolitan political ethics? Consider the very narrow human interest in cute animals at the expense of un-cuddly or disgusting species. The indifference or disgust toward many species does not bode well for an affect-based ethics (again, see Willett 2012). Haraway, however, insists on

touch as a primary source of response against what she poses as the unfeeling abstraction of reason-based ethics: “My premise is that touch ramifies and shapes accountability. Accountability, caring for, being affected, and entering into responsibility are not ethical abstractions. . . . Touch . . . peppers [her dog’s name is Cayenne] its partners with attachment sites for world making. Touch, regard, looking back, becoming with—these make us responsible in unpredictable ways for which worlds take shape” (2008, 36).

While the insistent focus on touch as a primary modality of ethical encounter does not cohere with any usual initial staging of a cosmopolitan ethics, the significance of such attachment sites between species does accord with the earliest bonding behavior between human adult and infant. And why not? The test subjects for the experiment that laid the basis for what John Bowlby formulated as “attachment theory” were not human subjects, but infant rhesus monkeys. So the experiment that established for science that human infants were not sucking machines but responsive creatures used animals for subjects. Here’s where Kelly Oliver’s thesis regarding animal pedagogy is particularly apt: humans have treated animals as instruments for our self-enlightenment at their expense (Oliver 2009). Of course, developmental psychologists now know that there is more than one source of attraction between human infants and their mothers. The newborn recognizes the mother’s voice from listening to her in the womb and the young infant learns soon after birth to recognize the distinct smell of the mother’s breast milk. Such affect-laden sites of response and of accountability may extend over a range of sensory experiences.

But then it is also true that these sites of response and accountability vary across species, limiting the ethical possibilities in the encounters between them. Clearly, some species are tuned to smells, sights, or even modalities of sensory experience and expression that the human species entirely lacks. Bats detect other creatures through sonar, a capacity that humans lack (except through the intervention of sonar detecting devices). The smile of a chimp does not indicate delight as it does for humans and for naive human interpreters but hostility and aggression, as Erica Fudge explains in her book *Animal* (2002, 26–27). This penchant for misinterpretation of animals led Montaigne to argue that humans are as ignorant as we arrogantly assume dogs and other animals to be, leading his readers to wonder if we might best cultivate in this realm a philosophy of moral skepticism (Bakewell 2010, 129).¹⁶

Despite the variations in modes of expression and sensation, however, humans and other animals can learn to acquire awareness for features of other species’ response systems, as humans have done (for example through ultrasonic devices and careful observation) with both bats and chimps. Two recent developments in evolutionary theory account for how synchronization between species is possible: co-evolution (Haraway 2008; Molner 2008) and parallel evolution (Preuss 2011). Haraway takes co-evolution as an essential component

of “becoming with,” and her primary example is the domestic dog. Further research suggests that humans may have guided the evolution of dog barks for purposes of communication (Molnar 2008). The capacity for understanding the affects of other creatures may emerge as well from a process of “parallel evolution” (also known as convergent evolution). As neuroscientist Todd Preuss argues, “The expansion of the dorsal ventricular ridge in corvids and the expansion of the neocortex in primates, both of which support derived cognitive functions, represent the parallel evolution of non-homologous forebrain structures.”¹⁷ Based on recognizable similarities between corvids (which are birds) and mammals, including grieving for the dead and a sense of humor (Bekoff 2007, 59–60), we could speculate that parallel evolution and/or co-evolution may establish a partial basis for a range of communicative capacities across species.

More than the ability to respond to the affects of other creatures is required for ethics. Earlier we mentioned the ethical significance of turn-taking for proto-conversations between infants and caregivers, which reflects both a sense of fair exchange and of reciprocity that provide core notions for any human ethics. Humans, however, are not the only species exhibiting these core notions of ethics. De Waal observes that a monkey who spies another monkey receiving a better reward (sweet grapes) in the lab for the same task will refuse to work at all for what rewards (cucumbers) he otherwise would receive (2009, 5). Based on extensive research, de Waal concludes that there is “a natural dislike for injustice” among any number of animal species (ibid). Further animal studies substantiate a sense of fairness and reciprocity among wolves (Bekoff 2007) as well as baboons and dogs (Smuts 2001). After years of fieldwork with baboons in Africa, Barbara Smuts offers for our reflection:

Until recent times, all humans possessed profound familiarity with other creatures. Paleolithic hunters learned about the giant bear the same way the bear learned about them: through the intense concentration and fully aroused senses of a wild animal whose life hangs in the balance. Our ancestors’ survival depended on exquisite sensitivity to the subtle movements and nuanced communication of predators, prey, competitors, and all the animals whose keener sense of vision, smell, or hearing enhanced human apprehension of the world. (2001, 294)

This capacity for communication across co-evolved and parallel species orients creatures in accordance with biological needs to propagate and survive. For this reason the attunement of predator and prey may be the clearest example of synchronization. For example, butterflies have developed the capacity to detect bat sonar so that they might escape capture. The development of analogous sensory capacities and corresponding affects—whether through co-evolution or parallel evolution—may allow as well for an expansive sense of justice. Or so

at least we would be given to wonder, given Smuts's reflections on her life with baboons. Smuts explains that she did not "literally [move] like a baboon—my very different morphology prevented that—but rather I was responding to the cues that baboons use to indicate their emotions, motivation, and intentions to one another, and I was gradually learning to send such signals back to them" (2001, 295). The return back and forth of gestures between baboon and this human guest in the baboon community succeeded in transmitting a range of meanings from polite acknowledgment to the need for privacy and respect. Such an expansion of the terrain of communication lends evidence to our human capacity to engage other species—not just as objects or even as dependents—but as possible companions.

Like the arts of music and dance, affect attunement can enable our communication across stylistic and geographical boundaries. Animals in our biosphere can synchronize affects through multiple sensory modalities to forge fields of value. Within the alternating currents of these fields of value the meaning of affects may vary along a range of hedonic tones and vital rhythms. Felt relationships in these animal worlds can be pleasant or painful, intense or mild, joyful or outrageous, or just plain boring, and we encounter much that we will likely never comprehend. Still, the range of value and meaning in fields of affect points toward a wider scope for ethics. Animals participate in our worlds as more than objects of pity. They may join in a social dynamic of call and response, eliciting appropriate degrees of respect, and attention to fairness and reciprocity. Affect attunement anchors the possibility for an ethical response to creatures of other species—co-evolved or parallel creatures—who, like us, live in a postlapsarian world, that is, a world of both good and evil.

—Emory University

ACKNOWLEDGMENTS

For insights and inspiration for this article, I thank John Protevi, Lynne Huffer, Lauren Guilmette, Kelly Oliver, Deboleena Roy, Sean Meighoo, David Pena Guzman, and an anonymous reader at *philoSOPHIA*.

NOTES

1. See Frans de Waal's *Our Inner Ape* (2006), 30. De Waal gathers highly persuasive biological evidence for the major argument of this essay.
2. See Barbara Smuts's article "Encounters with Animal Minds," *Journal of Consciousness Studies* 8 (2001): 293–309) and her interview with Robert Krulwich on National Public Radio, "Holy Baboon! A 'Mystical' Moment in Africa" (NPR, Dec. 22, 2009), in which she describes her encounter with baboons who pause

by a stream in a moment of silence and speculates that this moment of silence is evidence for their experience of the sacred.

3. See Marc Bekoff, *The Emotional Lives of Animals* (2007). Much of Bekoff's work moves on to explore the origin of ethics in intersubjective behavior, and hence is the basis for more complex stages of ethical development than we are dealing with here.
4. See also John Protevi, *Political Affect* (2009), for an interesting view of other dimensions of a Deleuzian-influenced affect theory fully developed for a political ethics. And see Ralph Acampora's *Corporal Compassion: Animal Ethics and Philosophy of Body* (2006), in which he develops an existential phenomenological transpecies ethics. The project in this article expands upon Acampora's passing suggestion that infant experiences can provide insights for a transpecies embodied ethics (2006, 36). The larger project from which this article draws anchors ethics within a political critique of forms of captivity and other uses of power that obscure and distort animal sociality (see Acampora 2006, 95–115).
5. This resonates with Megan Craig's "pragmatic phenomenology" of sense-giving experiences and immersion in life (2010).
6. The tradition of eros (which was developed in contrast with philosophies centered around logos) works well for expanding ethics to include engagement with nonverbal others via affects and for acknowledging sources of meaning in a world of pain, suffering, and other real losses felt as irrational. Here, this project converges nicely with Susan Wolf's analytic formulation of ethics in *Meaning in Life and Why It Matters* (2010, 53). Although she is more likely to speak of love or passion, her argument for love traces back to Plato's portrayal of eros in the *Symposium*.
7. In order to negotiate between the views of whether or not there is some sense of self in the first weeks of life, I have described the first period of infancy as "subjectless sociality." The account of early infancy reflects less the theoretical debates between Stern, Shaun Gallagher, and Colwyn Trevarthen, who posit an infant subjectivity, than Hendricks-Jansen, who thinks that infants are coaxed into subjectivity. See Willett 1995; Gallagher's *How the Body Shapes the Mind* (2006); and Trevarthen's "Descriptive analysis of infant communication behavior" (1977).
8. Charles Raison et al., "Inflammation, Sanitation, and Consternation: Loss of Contact with Coevolved, Tolerogenic Microorganisms and the Pathophysiology and Treatment of Major Depression" (2010): 1211–24. This work converges with other research on the gut brain. For a discussion from a psychologist of what Montaigne identifies as our second brain, see Jonathan Haidt, *The Happiness Hypothesis* (2006, 5).
9. My appeal to evolutionary theory is not meant to imply any agreement with projects that aim to naturalize ethics. While I am arguing that biosocial networks and affects are a significant element of ethics, I am not arguing that any theory of nature or psychology in itself could ground ethics. On the contrary, contingent and culturally varying values and meaningful affects saturate our scientific theories and, in part for this reason, render them inherently relevant to ethics.

10. Some of the ethical and political implications of the research on affects between caregivers and infants are explored in Willett, *Maternal Ethics and Other Slave Moralities* (1995) and *The Soul of Justice* (2001).
11. Shaun Gallagher observes this phenomenon as well in *How the Body Shapes the Mind* (2006).
12. Sometimes affect theories subsume hedonic affect into the category of emotion, which assumes a sense of self (I am using the terms *self* and *subject* interchangeably as I work across traditions of thought). Stern allows for hedonic tone to function at the level that I describe as subjectless sociality. Affect theories in debt to Deleuze and Guattari, though, seem to prefer to follow their approach and focus sheerly on what Stern terms vitality affects and/or vitality contours. See for example Gregg and Seigworth (2010) for a broad sample of essays that tend to follow the vitality affects and consign hedonic affects to emotion.
13. Bruce Wexler (2006) emphasizes the political, social, and psychological disasters of cognitive dissonance, or the mismatch of internal frameworks and environment for adults, who have lost the plasticity of their cognitive functioning that is found in children.
14. For a follow-up article that focuses on the problem of an ethics extended to animals that are not cute, see Cynthia Willett, "Ground Zero for a Post-moral Ethics in J. M. Coetzee's *Disgrace* and Julia Kristeva's *Melancholic*," *Continental Philosophy Review* (January 2012).
15. See also Myra Hird, *Origins of Sociable Life* (Houndmills, UK: Palgrave, 2009).
16. More on Skepticism, Stoicism, Epicureanism, and other Hellenistic philosophies of life in relation to an ethics of eros later (but see Willett 1995, 2008). The eros tradition aims to enhance social bonds and meaningful attachments in contrast with various practices and techniques of detachment in these Hellenistic traditions.
17. Todd M. Preuss, Evolutionary Theory Workshop, May 28, 2011; and quoted from e-mail correspondence July 14, 2011. See his "The Human Brain: Rewired and Running Hot," *Annals of the New York Academy of Sciences* 929 (2011): E1–E10.

REFERENCES

- Acampora, R. R. 2006. *Corporal compassion: Animal ethics and philosophy of body*. Pittsburgh: University of Pittsburgh Press.
- Anderson, B. 2006. Becoming and being hopeful: Toward a theory of affect. *Environment and Planning D* 24: 733–52.
- Bakewell, S. 2010. *How to live—or—A life of Montaigne*. New York: Random House.
- Barad, K. 2007 *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Durham and London: Duke University Press.
- Bateson, M. C. 1979. The epigenesis of conversational interaction: A personal account of research development. In *Before speech: The beginning of interpersonal communication*, ed. Margaret Bullowa, 63–77. Cambridge: Cambridge University Press.

- Bekoff, M. 2007. *The emotional lives of animals*. Novato, CA: New World Library.
- Bennett, J. 2010. *Vibrant matter: A political ecology of things*. Durham and London: Duke University Press.
- Bergoffen, D. B. 1997. *The philosophy of Simone de Beauvoir: Gendered phenomenologies, erotic generosities*. Albany: State University of New York Press.
- Brennan, T. 2004. *The transmission of affect*. Ithaca: Cornell University Press.
- Christakis, N. A., and J. H. Fowler. 2009. *Connected: The surprising power of our social networks and how they shape our lives*. New York: Hachette.
- Craig, M. 2010. *Levinas and James: Toward a pragmatic phenomenology*. Bloomington: Indiana University Press.
- Cuomo, C. 1998. *Feminism and ecological communities: An ethic of flourishing*. New York: Routledge.
- Darwin, C. 2006. *The origin of species*. New York: Dover.
- Deleuze, G., and F. Guattari. 1987. *A thousand plateaus*. Trans. Massumi. Minneapolis: University of Minnesota Press.
- Derrida, J. 2002. The animal that therefore I am (more to follow). Trans. David Wills. *Critical Inquiry* 28: 369–418.
- De Waal, F. 2009. *The age of empathy: Nature's lessons for a kinder society*. New York: Three Rivers Press.
- . 2006. *Our inner ape: A leading primatologist explains why we are who we are*. New York: Penguin.
- Fudge, E. 2002. *Animal*. Trowbridge, Wiltshire: Reaktion Books.
- Gallagher, S. 2006. *How the body shapes the mind*. Oxford: Oxford University Press.
- Gibbs, A. 2010. After affect: Sympathy, synchronicity, and mimetic communication. In *The affect theory reader*, ed. Melissa Gregg and Gregory J. Seigworth. Durham and London: Duke University Press.
- . 2001. Contagious feelings: Pauline Hanson and the epidemiology of affect. *Australian Humanities Review* 24. www.australianhumanitiesreview.org.
- Gregg, M., and G. J. Seigworth, eds. 2010. *The affect theory reader*. Durham and London: Duke University Press.
- Guilmette, L. 2011. Becoming woman, becoming animal: Lessons for poststructuralism from Virginia Woolfs [sic]. Presented at the Society for Phenomenology and Existential Philosophy, Philadelphia, PA, October 2011.
- . 2010. Reading Butler reading Beauvoir reading Sade: On ethics and eros. *Philosophy Today* 55 (SPEP Supplement: *Selected Studies in Phenomenology and Existential Philosophy* 36): 292–301.
- Haidt, J. 2006. "The happiness hypothesis" *Finding modern truth in ancient wisdom*. New York: Basic Books.
- Hansen, M. 2004. *New philosophy for new media*. Cambridge: MIT Press.
- Haraway, D. 2008. *When species meet*. Minneapolis: University of Minnesota Press.
- Hird, M. 2009. *Origins of sociable life*. Houndmills, UK: Palgrave.

- Huffer, L. 2009. *Mad for Foucault: Rethinking the foundations of queer theory*. New York: Columbia University Press.
- Margulis, L., and D. Sagan. 2002. *Acquiring genomes: A theory of the origins of species*. New York: Basic Books.
- Maturana, H., and G. Verden-Zoller. 2009. *The origins of humanness in the biology of love*. Exeter, UK: Imprint Academic.
- Molnar, C., et al. 2008. Classification of dog barks: A machine learning approach. *Animal Cognition* 11, no. 3: 389–400.
- Oliver, K. 2009. *Animal lessons: How they teach us to be human*. New York: Columbia University Press.
- Papoulias, C., and F. Callard. 2010. Biology's gift: Interrogating the turn to affect. *Body and Society* 16, no. 1: 29–56.
- Preuss, T. M. 2011. The human brain: Rewired and running hot. *Annals of the New York Academy of Sciences* 929: E1–E10.
- Protevi, J. 2009. *Political affect*. Minneapolis: University of Minnesota Press.
- Raison, C., et al. 2010. Inflammation, sanitation, and consternation: Loss of contact with coevolved, tolerogenic microorganisms and the pathophysiology and treatment of major depression. *Archives of General Psychiatry* 67, no. 12: 1211–24.
- Sedgwick, E. K., and A. Frank, eds. 1995. *Shame and its sisters: A Silvan Tomkins reader*. Durham and London: Duke University Press.
- Smuts, B. 2001. Encounters with animal minds. *Journal of Consciousness Studies* 8: 293–309.
- . 1999. *Sex and friendship in baboons*. Cambridge: Harvard University Press.
- Stengers, I. 2010. *Cosmopolitics I*. Trans. Robert Bononno. Minneapolis: University of Minnesota Press.
- Stern, D. N. 2010. *Forms of vitality*. Oxford: Oxford University Press.
- . 1985. *The interpersonal world of the infant*. Mineola, NY: Basic Books.
- Trevarthen, C. 1984. Emotions in infancy: Regulators of contacts and relationships with persons. In *Approaches to emotion*, ed. K. Scherer and P. Ekman, 129–157. Hillsdale, NJ: Lawrence Erlbaum Associates.
- . 1977. Descriptive analysis of infant communication behavior. In *Studies in mother-infant interaction*, ed. H. R. Schaffer, 227–70. London: Academic Press.
- Wexler, B. 2006. *Brain and culture*. Cambridge: MIT Press.
- Willett, C. 2012. Ground Zero for a post-moral ethics in J. M. Coetzee's disgrace and Julia Kristeva's melancholic. *Continental Philosophy Review* 45(1).
- . 2008. *Irony in the age of empire: Comic perspectives on democracy and freedom*. Bloomington: Indiana University Press.
- . 2001. *The soul of justice: Social bonds and racial hubris*. Ithaca: Cornell University Press.
- . 1995. *Maternal ethics and other slave moralities*. New York: Routledge.
- Wolf, S. 2010. *Meaning in life and why it matters*. Princeton: Princeton University Press.