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Walking with Elephants: A Case for Trans-Species Ethnography

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Introduction

It has become a bit of a truism in contemporary discourse that the answers we get to our questions are in part shaped by the kinds of questions we ask to begin with. The specific research methods chosen in a formal research study inevitably play a hand in shaping the outcome of that research. Qualitative and mixed-methods research methodologies are taking on increasing recognition and importance in the social sciences (Denzin and Giardina 2008) and in the contemporary theory and practice of neurophenomenology (Frewen and Lanius 2014; Varela and Shear 1999; Velmans 1999) as researchers continue to recognize that a purely 'objective' approach to the human condition by definition leaves too much humanity out. But even as current discourse on methodology in the last century has expanded into new realms for the study of humans, the dominating paradigm for the study of animals remains largely mired in the assumptions of centuries past. Objectivity has been an invaluable tool for the advancement of the sciences, but when objectivity is presumed as the only lens through which animals can be viewed, animals will inevitably appear as objects.

My present purpose is not to prosecute a detailed philosophical argument over animal subjectivity or personhood, but simply to point out the considerable consequences of researching animals exclusively through objective scientific study. Such an approach is rooted in twentieth century positivism and the behaviorist schools it brought to bear on the study of human and animal alike. Though modern discourse has largely come to recognize positivism as long dead when it comes to making knowledge claims about the human sphere (Passmore 1967), positivist and behaviorist assumptions continue to influence the sciences, including the study of non-human animals. Insofar as our research methods assume animals as objects of biological interest without meaningful subjective qualities, the results of that research are likely to reinforce the premise. For this reason alone, exploring a greater diversity of methods would seem to be called for. This case is made even stronger when considering that even the results of objective research into animals has pushed us into culturally and ethically uncomfortable territory. There is now much evidence to suggest, on both the level of brains and behavior, that we humans seem to have much more in common with our non-human kin than we have previously wanted to admit (Panksepp 1998; De Wall 2001; Pepperberg 2008; Bradshaw 2009; Reiss 2011; Bekoff 2013).

Consider, for example, the opinions of two prominent neuroscientists on the question of what kind of subjects animals might be. In the *Synaptic Self*, Joseph Ledoux writes:

> Once we accept that the self of a human can have conscious and non-conscious aspects, it can be easy to see how other non-human animals can be thought of as having selves. … While only humans can have the unique aspects of self made possible by the kind of brains that humans have, other animals have the kinds of selves made possible by their own brains. (2002, 21)

This opens the intriguing possibility of different kinds of subjectivity, self, and personhood that may express in vastly different ways across different species. The question of 'otherness' has long been recognized as vital to human studies; there is justifiable concern in understanding how humans approach 'other' humans who express difference in ethnicity, culture, religion, and language. It seems obvious enough to imagine that two humans from different language groups, sans mediation, would have to spend quite a bit of time together, making a good-faith effort to understand one another, before common ground could begin to emerge. Would this not be even moreso the case between two different intelligent species? This brings us to the comments of our second neuroscientist, David Presti:

> If we believe sentience is associated with complex nervous systems, then it must be the case that animals like dolphins, whales, and elephants, for example, have elaborate conscious awareness. Little effort currently goes toward studying and attempting to communicate with these creatures. (2016, 260-261)

This question of communication with other highly intelligent species comes to the heart of the matter. Communication is something that happens between subjects, not objects. And we should imagine that communication across species lines would be difficult enough without further complicating the matter by imposing an early twentieth century positivist framework on the proceedings.

The purpose of this paper is to advocate for the development and application of new animal-research methodologies that take these issues into account, and to propose specifically the use of *trans-species ethnography* as one such potential approach. In doing so, I am deliberately advocating for a methodology that takes a relational approach to research—that is, an approach that foregrounds the relationship between researcher and subject. Such an approach to animal research is not without precedent, in fact the last few decades have seen a burgeoning movement in this direction. Ingold (2013) argues for a reevaluation of human-animal relationships in anthropology that recognizes them as complex interactions between sentient beings. By way of comprehensive reviews, Locke and Munster (2015) catalogue in detail the growing number of scholars and researchers who are actively developing these new approaches in this arena, and Van Dooran, Kirskey, and Munster (2016) outline the growing

field of multi-species studies that takes a more relational and immersive approach to interactions between humans and non-humans. With regards to specific species, pioneering work around interspecies relations has been done with elephants (Bradshaw and Buckley 2010; Locke and Buckingham 2016), and ethnographic approaches to animal communities as expressions of culture have been undertaken with dolphins and whales (Rendell and Whitehead 2001) and chimpanzees (Whiten et al. 1999). However, despite these promising beginnings, this new approach to animal relationships remains in an early phase; conferences that have addressed inter-species relationships are far and few between, and research papers on multi-species studies over the last decade number in the dozens. There remains much work to be done for this new vein of research to achieve wider recognition.

The first part of this paper outlines trans-species ethnography from a theoretical perspective, drawing in particular on the disciplines of anthropology, depth psychology, and somatic studies. Following this theoretical elaboration, I offer as a pilot case study my own PhD fieldwork researching cultural contexts of human-elephant communication at an elephant sanctuary in Cambodia.

Theoretical Foundations in Ethnography

The practice of ethnography, first developed in the context of anthropology but arguably a distinct methodology all its own (Ingold 2008), provides a well-established tradition of studying human culture through the intermingling of observation and participation. For ethnographers, this is a long-standing conversation: how does one live among a people while remaining an objective observer? How can one truly understand a culture on its own terms without coming into some degree of intimacy with that culture and its people? The struggle to answer these questions produced the notion of the *participant-observer*, the fieldworker who observes a culture while simultaneously coming into relationship with it. Such an endeavor strives to balance empathic understanding with distance and neutrality (Tambiah 1990). In the process of participating-observing with the group in question, the fieldworker produces a written ethnography: a deep study of a people and its customs. The term ethnography thus refers to both a collection of methods for effective participant observation, and the written results of the study.

In a trans-species ethnography, this treatment of human culture is expanded to include non-human participants in an interspecies community. A trans-species ethnography recognizes humans and animals co-existing and perhaps even collaborating through culturally structured relationships, and investigates the structure of those relationships. Furthermore, it acknowledges the researcher as both observing and participating in the community via

relationships with both human and non-human community members. "Community" is a term most commonly applied to human groups, and the question of whether other species can be members of a given community may seem contentious. All that is required to answer this objection is to define community as the ongoing co-existence of multiple species within a given stable system of interactions. Locke (2013) has pointed out that "community" also has a specific use in the field of ecology to refer to regularly interacting organisms, and suggests an integration of these two meanings, humanistic and ecological, in doing interspecies fieldwork. At its simplest level, this interspecies community could be made up of such things as the services a dog provides (affection, protection from trespassers) in conjunction with services its human companion provides (affection, walks, food and shelter). This familiar domestic scenario complexifies considerably for humans who live closer to nature, whether as zookeepers, organic farmers, animal sanctuary workers, or hunter-gatherer tribes. The need to study such relationships is a burgeoning concern: the growing field of anthrozoology incorporates an interdisciplinary approach to the study of human animal relationships (Hecht 2013). Watkins and Bradshaw (2007) go even further in their articulation of a "trans-species psychology" that premises psyche as a topic of study existing across species, rather than being the sole province of humanity.

As pioneers of intrans-species research continue to develop their methodologies, the history and ongoing discourse around the practice of ethnography has much to offer. In criticizing the presumption of objectivity in anthropological fieldwork, Corin writes: "ethnographic descriptions have been highly criticized for their implicit involvement in the process of colonization: the legitimacy of classical anthropology has been questioned for its participation in the construction of an objectified image of non-western peoples" (2007, 240). That is to say, the early history of anthropology has been implicated in a colonial project in which the dominant culture understood other cultures by subjecting them to its own insular cultural categories, rather than seeking to understand new cultures on their own terms. Anthropology has come far in this regard, but animal research is only beginning to apply these considerations. The history of the scientific study of animals is rife with objective methods carried out by researchers whose 'objectivity' was deeply inscribed with cultural values of anthropocentrism, scientific mastery of the natural world, and biblical dominion over nature. That animals were objects for study, rather than sentient subjects with their own agency, was not a scientific conclusion so much as a pre-scientific assumption. This dynamic is addressed explicitly by Goslinga and Frank:

> Our knowledge risks remaining anthropocentric in the sense that all order is imposed from a modern human point of view…. [N]onhuman experiences are passed over in public accounts of fieldwork and the writing of knowledge

> precisely because they do not conform but in fact sometimes defy existing categories. (2007, xvi)

This statement beautifully captures both the problem and the promise in trans-species fieldwork. By even attempting a qualitative ethnography in non-human and mixed species contexts, we take a step towards correcting centuries of skewed reporting. At the same time, the project carries the dual challenges of being ambitious and ambivalent—there is relatively limited context for this kind of work, and few channels open to receiving it. It is a methodology that needs to be developed through robust discourse among a great number of researchers; all the more reason that such work should begin in earnest.

Theoretical Contributions from Depth Psychology and Somatics

Depth psychology is generally recognized as a field of psychology, founded by Sigmund Freud and elaborated by Carl Jung and others, that emphasizes the unconscious element of the human condition. While different schools of depth psychology have theorized the unconscious in different ways, the field of depth psychology as a whole represents a discourse on conscious-unconscious relations, and has been verified by neuroscience insofar as most brain processes are now widely recognized to be non-conscious processes (See Ledoux 2002; Solms 2002; Ginot 2015). Thus while some elements of depth psychology provide techniques for strengthening the conscious ego in relation to the unconscious, the field as a whole has served a function of decentralizing the rational ego as the ultimate arbiter of truth, and shown curiosity for the deeper impulses and assumptions that underlie rational attitudes and perspectives. From a theoretical standpoint depth psychology provides a unique entrance into human-animal relationships in two ways. First, depth psychology has long recognized and wrestled with the inevitability of projection in psychological experience, and thus offers a framework for working with those projections productively (i.e., the discourse on transference and countertransference). Second, depth psychology's willingness to de-centralize the ego in the inner ecology of the psyche makes for a natural affiliation with the related field of ecopsychology. With regards to latter, Fisher (2007) argues for a "radical" ecopsychological premise that the psyche is continuous with nature, and cannot be whole without active relationship with the natural world. From this perspective, communication across species lines is not only possible, but also a means towards wholeness, the reclaiming of a birthright that modern humanity has lost.

Regarding projection, depth psychology has long recognized that the human condition includes unconscious images, expectations, and narratives becoming projected onto external reality, particularly in relationships. Analytical psychologist Marie-Louise Von Franz (1980) articulates

the view that this ubiquity of projection is not merely a liability, but also a critical tool by which we understand the world and build meaningful relationships. The question is not whether humans project onto animals, but rather how to recognize these inevitable projection dynamics and work with them consciously. This means that the scientist with an anthropocentric worldview who views animals as unconscious machines is inevitably projecting as well: the animal-as-object is projected as an unconscious premise, not a conclusion. And in fact it is a very old premise, with roots in the ancient vivisection practices of Akmaeon of Croton and Galen, to Descartes' famous assertion that animals are mindless automatons (Robinson 1976, 202). While there is no easy way out of our own projected biases in these situations, holding them in awareness and recognizing them as more or less constant in ourselves and others allows us to proceed with greater humility and caution. As with any hermeneutic research project, the limited horizon of the researcher gradually adapts to the horizon of the research, until the perspective is transformed through deeper understanding (see Gadamer 2004, 269). Our projections are a necessary starting point; by recognizing them as essential but incomplete, we allow the research process to transform them until new knowledge and understanding emerge.

Bradshaw and Buckley address this point directly with regards to interspecies work with elephants: "the trans-species worker must constantly be mindful and reflective of her/his projections. While sharing cultures and values, we must be respectful of difference" (2010, 56). This openness to inter-penetration of researcher and subject allows for an approach that acknowledges the relational nature of human knowledge, and foregrounds relationship in the research process itself. Furthermore, Bradshaw and Buckley's radical reframing of interspecies work as an exchange between *cultures*, human and non-human, challenges our traditional western assumptions that only humans have culture and as such requires a new starting point for researching interspecies communities.

The "trans-species psychology" outlined by Mary Watkins and Gay Bradshaw is a psychological theory "which engages the principles of liberation and eco-psychologies together. The model of trans-species psychology explicitly names the interpenetration of human and animal domains in parity absent the assumption of ascendance" (2007, 71). The ascendance here refers to the modern assumption that humanity is above and apart from nature, rather than one member in a complex global community of multiple species. In this view, animals, as individuals and communities, have a right to their own agency and self-understanding, rather than having their lives determined and controlled by a dominating humanity. Though it may court controversy to apply these principles to less complex organisms, highly intelligent animals such as apes, cetaceans, and elephants have clearly demonstrated a level of psychological depth that necessitates a re-framing of human-animal relations as an ethical imperative. The 2012 Cambridge Declaration of Consciousness reinforces this perspective from a scientific

perspective, arguing that many of the neurological pathways associated with conscious experience are shared across species, rather than being a unique feature of humans.

Ecologist and depth psychologist Gay Bradshaw's research in elephant trauma (2005) specifically examines the way PTSD and developmental trauma can not only cripple individual elephant lives, but also contribute to a breakdown of elephant culture worldwide. Bradshaw argues that deeply ingrained assumptions of human superiority color human-animal relationships in Western civilization, and thus an inter-species psychology must draw on the principles of liberation psychology as well. Liberation psychology, generally speaking, is the approach to the psyche that focuses on the liberation and empowerment of individuals and groups on their own terms, rather than imposing a theoretical psychological framework onto them. In a paper coauthored with Tennessee elephant sanctuary director Carol Buckley, Bradshaw writes: "if the caregiver does not believe in the elephant's agency, the elephant continues to be objectified and remains psychologically dominated and captive" (2010, 56). This echoes the larger ethos of liberation psychology, which argues that we cannot be "psychologically liberated or individuated…while knowingly or unknowingly curtailing the freedom of others" (Watkins and Shulman 2008, 46). Thus, after centuries of humans studying animals through the lens of dominating and diminishing 'objectivity,' a new possibility opens to work with intelligent non-humans in the spirit of equality, however differently shaped our bodies and brains.

Communication between species suggests modes of interactions that necessarily take place largely outside the sphere of human language. Communicating without verbal language carries us into the realm of nonverbal communicative interaction between *bodies*. As such, trans-species fieldwork has another important resource in the growing field of somatics. Somatic studies are a discourse on embodiment, what it means to have or to be a body as a phenomenological reality. As opposed to physiology, which studies bodies objectively from the outside, somatics is interested in bodies in their vital, experiential aspect. The aim here is not to endorse mind-body dualism or to privilege the body, but rather to re-incorporate a discourse on shared embodiment in relationships and subjectivities of all kinds. The field of somatics offers an important point of intersection with relational animal studies, because embodiment is something we share deeply with our non-human kin. In an early treatise on somatics, Thomas Hanna recognized the existential parity of embodiment between humans and animals: "All members of the animal kingdom are somas, because all animals are self-organizing beings with sensory-motor functions" (1995, 341). Embodiment studies offer a different meeting ground between human and animal where abstract language does not enjoy such extreme privilege in the communication process. An emphasis on embodiment has already been taken up by Parreñas (2012), Locke (2016), and others with regards to researching human-animal relationships without explicitly drawing on the field of somatics, but further integration of

somatic studies and its sophisticated discourse on the topic remains a largely untapped resource for such research projects.

From Mehrabian's (1980) pioneering study onward, it has been well established that a great deal of human communication is nonverbal and extra-verbal, though we may not always be conscious of these nonverbal elements. The notion that we humans regularly communicate social and emotional cues to each other without words, or in addition to words, as an integral part of our daily interactions is now so well established that it approaches common knowledge. More recently, the concept of somatic *attunement* offers an even more compelling framework for nonverbal connection with an 'other.' Neuroscientist Daniel Siegel writes: "The process of affect attunement… reveals the fundamental way in which nonverbal communication is the medium in which all states are aligned" (2001, 81). The basic idea here is that we can 'tune in' to each other's embodied emotional states, a process which neuroscientist Alan Schore suggests is mediated by the right brain hemisphere: "the right brain nonverbally communicates its unconscious states to other right brains *that are tuned to receive these communications*" (2012, 171, original italics). This model for ongoing nonverbal communication serves as a counterpoint to the problem of psychological projection in recognizing kinship with animals. Whereas depth psychology warns us that we might project our anger onto a dog, somatic attunement suggests that we may also have an inherent capacity to resonate with the dog's emotional state. This is a reasonable premise so long as animals and humans share a common emotional heritage, a notion first seriously proposed by Darwin (2005), that has since been qualitatively investigated by Masson and McCarthy (1995) and neurobiologically affirmed by Panksepp (1998). Indeed, Panksepp's work in particular indicates that the basic emotional circuitry of the human brain is shared by all mammals. Locke's (2016) work in particular has sought to apply these considerations to human-elephant relationships through a discussion of shared affect.

This is often where the argument turns to a philosophical debate over whether we can truly know what animals are feeling, or if they have consciousness at all. Briefly, my response is threefold. First, ultimately we have no way of knowing with certainty that other human minds exist either, if the humans surrounding us are not just figments of our imagination, or are automatons who only appear to be conscious. Most of us are willing to make the leap of faith beyond that ultimate rational uncertainty and live in respectful relationship to other humans regardless. Second, the conviction that to know something must mean knowing it verbally—that is, by applying abstract language to it—ignores the many other ways we have of 'knowing' the world through direct experience: sensory information, mental images, intuition, emotion, and so on. Obviously verbal language is one of our great assets as a species and we should honor it as such. But verbal language is not our only means of knowing, nor our only means of communicating, and if we seriously seek to understand and communicate with non-human

animals whose brains are structured in fundamentally different ways, we would be well served to begin by honoring those differences and seeking areas of common ground.

Third, the argument that we can never know about an animal's experience is not in itself an argument to treat animals as objects, but rather a simple statement of epistemic humility. Yet this uncertainty has not prevented centuries of 'objective' animal research that denies or diminishes animal subjectivity. Thus, by the same token, it should not function as an argument to prevent robust relational research with animals either. In fact, given the stark lack of balance on this issue historically, it would appear that developing methodologies with alternative premises about animals would be essential to an intellectually honest and comprehensive investigation of the topic. Important work has been done in this regard, but such research is still in a nascent stage. Thus, in the remainder of this paper, I offer my own fieldwork at an elephant sanctuary as a case study for how trans-species ethnography might proceed. The purpose in this case is less to prove a specific argument about elephants than it is to outline, by way of example, the many considerations that would constitute such a project.

The Fieldwork

Following the model of an ethnographic report, I present this case study in the first person, acknowledging my subjective status as a highly educated Caucasian male from a comfortable middle-class American background. Under the supervision of Pacifica Graduate Institute, I conducted my PhD fieldwork in somatic depth psychology at the Elephant Valley Project (EVP) in Mondulkiri, Cambodia. This sanctuary for retired work elephants is unique in the region for emphasizing 'walking with elephants' in their natural habitat, rather than riding them. Whereas most other elephant establishments in Southeast Asia at this time force elephants to provide rides for tourists, EVP is committed to a model of elephant care that does what is best for elephants, not for humans. It should be noted that this does approach not constitute an absolute moral statement about how humans and elephants interact; some would argue that giving rides to humans may be perfectly enjoyable for some elephants. And in fact, the elephants regularly give rides to their personal keepers (the mahouts) with whom they have cultivated a personal bond. That said, the practice of requiring elephants to daily give rides to visiting strangers strikes me as a moral grey area at best, and I appreciate the ethos of allowing elephants maximum agency in their daily activities. This ethical starting point is what drew me specifically to the Elephant Valley Project in Cambodia: the sanctuary's commitment to giving elephants agency over their own lives, rather than regularly subjugating them to the needs of passing tourists.

I was granted entry to the Elephant Valley Project as a volunteer, having fully informed the staff that I would be conducting PhD fieldwork in somatic/depth psychology as a participant-observer. The hours on site were divided evenly between volunteer activities (e.g., farming, building, and lifting) and time spent walking with the elephants in their natural habitat. Volunteers were accompanied throughout both activities by both the sanctuary's small staff, and an ever-changing milieu of short-term tourists. During those portions of the day spent away from the elephants, I was able to engage the staff and volunteers in dialog about their experiences at the sanctuary. I took detailed field notes, including my observations of elephant-elephant communication, human-elephant communication, the experiences of human visitors and staff, and my own experiences of communicating with elephants. In the spirit of both depth psychology and ethnography, a detailed accounting of my thoughts, feelings, and potential projections were recorded throughout the process. In addition to written field notes, I documented the daily activities at the sanctuary via high definition video.

The Elephant Valley Project is run by the Elephant Livelihood Initiative Environment (ELIE), an NGO engaged in multiple initiatives toward protecting both captive and wild elephants in the Mondulkiri region. This organization recognizes that elephant well-being and human well-being are inextricably intertwined, and thus actively engages with the local indigenous Bunong community. ELIE supports the Bunong in developing an ecologically sound future, encouraging sustainable economic strategies that do not involve razing forests and forced elephant labor. A significant amount of the volunteer work at the sanctuary involves community initiatives, and a portion of the money raised by the sanctuary as an eco-tourism destination goes towards health care for villagers, legal battles to protect the forest, and other forms of local advocacy work. As such, the institutional and financial structures of the sanctuary acknowledge and address the complex contexts within which humans and elephants are able to engage.

The Research Question

The fieldwork design situated me as a participant-observer in EVP's interspecies community, with a particular focus on the question of how elephants and humans communicate across species lines. Inherent in these communications were the cultural contexts and assumptions that bound human and elephant together at this particular location. I thus phrased the specific research question as follows: *What are the modes and contexts of communication between human and elephant in this trans-species community?*

The project utilized a depth psychology framework in its attention to unconscious patterns and projections between human and non-human, and a somatic framework in its recognition that nonverbal embodied communication would necessarily be a primary avenue of contact

between human and elephant. In contrast to a reductionist approach that attempts to isolate and explain simple behaviors, I took the position that researching human-elephant communication requires the ongoing consideration of multiple contexts of interaction. First, it was necessary to inquire into how elephants communicate with other elephants, and thus where human and elephant communication styles converge and diverge. Second, it was necessary to investigate the specific human cultural context and infrastructure, including ideology and unconscious assumptions and projections, in which the elephants were enmeshed. For although the sanctuary asserts an ethical position by respecting the agency of elephants, these nonhuman animals nonetheless remain within the sanctuary boundaries, ultimately under human observation and control. Third, I recognized that the plight of Cambodian humans and Cambodian elephants alike cannot be separated from the national trauma of recent war and genocide, a horrific history that casts a long shadow over the country to this day. Not unrelated is the region's ongoing ecological trauma—a rapid devastation of natural forest habitat that is among the worst in the world. Human-elephant relations in this region cannot be entirely separated from these larger systemic issues.

Local Elephant Culture

There were nine elephants living at the sanctuary during my visit, all female, each with a unique history and personality, and all coming to the sanctuary after a lifetime of being in human captivity, rather than living with a herd of wild elephants. These elephants were deliberately divided into different groups and kept in different valleys within the boundaries of the sanctuary. The reason given for this separation was that some elephants are a better 'fit' for each other in terms of personality than others, and the sanctuary director wants to minimize potential conflicts. This is also largely a human safety issue, as conflict between elephants could easily prove hazardous to visiting humans who do not know when to get out of the way. Each of the elephants, of course, also represents a certain financial investment for the sanctuary, and I suspect this too is a strong motivation to enforce cautious separation rather than let nature (and elephant culture) take its course. A final reason given is that good elephant pairing can be integral to the process of rehabilitation and healing: elephants are highly social creatures and learn through imitation. Some elephants who never learned to wash themselves, for example, begin to do so when paired with elephants who are skilled washers. In this way, the sanctuary meets its goal of helping elephants 'remember how to be elephants' after a lifetime of captivity and forced labor.

The largest sub-group of elephants offered the richest and most diverse displays of communication—both amongst themselves and with humans. This group of four, referred to as "the herd," was led by matriarch Ning Wan, by all accounts the sanctuary's least traumatized

elephant. A serene giant, Ning Wan spent her life as a traditional Bunong village elephant, used for labor occasionally but never on a commercial scale. She is both physically healthiest and ostensibly the most psychologically balanced elephant in the sanctuary. It was with Ning Wan that I had the most complex relationship, and the greatest number of meaningful interactions (more on this below). She had emerged as a natural matriarch to the other three in the herd (May Nang, Pearl, and Ruby) and though none of them had grown up in a wild herd, they were quickly making up for lost time.

On at least three occasions, I witnessed a member of the herd sound an alarm, and the other three rushed in and pulled tightly together with excited chatter: squealing, rumbling, and touching in a complex interchange incomprehensible to human observers. Elephants have at least five channels of communication: sound (over 200 trumpets, squeals, and rumbles have been recorded), infrasonic vibration (low frequency vibrations which travel through the earth and can be picked up by other elephants many miles away), chemical (sensitive receptors in their trunks help decode chemical signals in other elephant's mouths and genitals), and two channels shared with humans: gesture and touch. They have an excellent capacity for understanding human words over time, but of course they cannot return this particular form of communication. So although their communication with each other is clearly quite complex, it is also quite different from our human dependency on verbal exchange. Human preoccupation with vision is another major difference and thus potential barrier to communication. Elephants have relatively poor eyesight, but both their sense of touch and their ability to sense vibrations are quite acute. It took me some time to realize that an elephant doesn't necessarily have to look with its eyes to sense what is happening in the surrounding environment.

Across the world, elephants have the peculiar exchange of placing their trunks in each other's mouths, something I observed dozens of times throughout my time at the sanctuary. This action, which involves a combination of touch, gesture, and chemical communication garnered various, sometimes contradictory explanations from the human staff. I have heard or read it described as a "greeting," "handshake," "hug," and even a "chemical system for establishing hierarchy"—but watching the actual behavior across multiple contexts, I suspected this human guesswork offered partial explanations at best. Trunk-in-mouth (and trunk-in-genitals) communication did occur often upon the first meeting of two elephants, but also reoccurred frequently throughout the day, especially during times of elevated stress or transition from one activity to another. I also noticed that on many occasions, trunk-in-mouth would be attempted and rebuffed—the receiving elephant would refuse to open. Given the variation, it seems unlikely that the gesture in itself has a single meaning, and more likely has different uses and meanings under different situational and chemical contexts. A helpful corollary in the human world might be touching hands—a gesture that can convey various meanings depending on specific form and quality: tenderness, need, comfort, solidarity, power, dominion, or something

more symbolic, such as a formal greeting or agreement, in the case of a hand shake. Such an analogy, however, can only be partial, as it lacks the chemical component, an aspect of elephant communication that humans barely understand, and may have trouble even imagining.

It must also be reiterated that all of these elephants spent their lives in captivity, and thus never had the opportunity to participate in traditional elephant culture, though certainly bits and pieces of that culture may have been learned in the first years of life, or passed on from other elephants met along the way. It was explained to me by the sanctuary staff that it is essentially impossible to capture and train an adult elephant for labor, a story which contradicts most available research (Trautman 2016; Locke 2011; Laine 2016). True or not, the widespread belief in this narrative has led a longstanding practice in Cambodia of capturing elephants as babies. Thus, for the work-elephants in this region, the local culture shared among elephants at the sanctuary must be understood as reconstructed at best, and heavily influenced by human contact from a young age. Jack Highwood, the director of EVP, has visited similar reconstructed elephant communities all around the world, and believes that different elephant dialects develop at specific sites. Thus, a particular gesture or sound in one captive community may not necessarily have the same meaning in another captive community. This point is important. If research into elephant communication is strictly limited to seeking objective universals across the species, it will fail to explore the possibility of dialects among different elephant cultural groups. To put it another way, researching communication among other intelligent species is necessarily as much a question of hermeneutics as scientific observation.

In studying humans, we do not doubt that specific verbal and nonverbal communication styles are largely received through cultural transmission rather than instinct. If this true in even a small way for elephants, then the project of understanding captive elephant communication would have to be at least partially site specific, as each isolated elephant community may represent only its own communication style. At the same time, the fact that broad communication actions such as trunk-in-mouth appear to be universal throughout the species indicates that such actions have some instinctual basis as well. Parsing the line between instinct and dialect will only be possible when multiple studies of communication in local elephant groups are conducted and compared. But in order to do so, the possibility of distinct elephant dialects would first have to be acknowledged. Thus far, most traditional scientific studies of elephants (and animals in general) have skewed toward only studying the instinctual and universal, operating under the old assumption that behavior is largely determined by genetics, ignoring psychological and social factors. The reductionist conclusions to such studies, offering explanations of animal behavior as purely instinctual, have become canonical in the culture of animal research. These assumptions are subsequently projected onto animals in the field, not

only reinforcing the anthropocentric mythos, but actively shaping the relationships between human and non-human in a cyclical self-fulfilling prophecy.

The Human Context

Just as we must consider individual elephants and specific elephant communities when investigating inter-species communication, so must we look at the specific humans who participate in these nonhuman engagements. EVP has a relatively small staff, made up almost entirely of Caucasians hailing from the United Kingdom. This is worth bearing in mind as it suggests a strong presence of Western perspectives and practices, and as such may differ greatly from human-elephant communities in other contexts (see, for example, Locke's 2016 account of human-elephant interactions in Nepal). A support staff of cooks, cleaners, laborers, and assistant tour guides are comprised of local Bunong villagers. On a given day the greater number of people on site might well be the tourists and volunteers who travel to Mondulkiri from around the globe, a group largely constituted by affluent westerners.

I was surprised to discover that the staff, including the sanctuary founder, had a tendency to employ language that reflected a more traditional anthropocentric perspective. The founder in particular made extensive use of behaviorist language, and seemed uncomfortable when I expressed my interest in elephant "culture" and non-dominating "human-elephant relationships." Of course I had no means to thoroughly assess whether the use of anthropocentric language reflected genuine conviction; it may well have simply been a convenient short-hand for interacting with the many human visitors to the sanctuary. In any case, I chose to tone my own rhetoric down for fear of alienating myself from the sanctuary staff. This decision may have been unnecessarily cautious, but such discretion can be par for the course as a participant-observer. Anthropologist Vincent Crapanzano writes: "For any communication to be successful, there is always an accommodation—an acceptance of the frame, conventions, and relevant hermeneutics and axiology—for the occasion" (2007, 99). The rest of the staff largely mirrored the founder's behaviorist language, although from time to time most of them, the founder included, were inclined to wax poetic or tell incredible stories about elephant awareness, sensitivity, and intelligence in the context of more casual conversation.

It is worth considering to what degree the founder and the staff regularly employ the behaviorist language of the traditional Western culture based on purely social considerations. Perhaps such language is a political necessity for legitimating the sanctuary and securing donations. During my second week on site, I interviewed the founder on camera, and was touched by both his deep emotional attachment and clear commitment to the well-being of the elephants. His stories laid bare the terrible violence towards elephants he had witnessed. Some

of the elephants now living in the sanctuary were brutally beaten right before his eyes, before he took them under his care. He has witnessed elephant deaths, and blames himself for at least one. EVP operates in a local society where elephants have come to be seen almost entirely as commodities, sources of money, with little or no care for their well-being beyond their ability to produce and perform. Within the larger context of consistently witnessing this kind of cruelty, employment of behaviorist language may serve an important political function that allows the service work to continue.

Some of the long-term volunteers, most of whom also hailed from Western backgrounds, sometimes seemed resistant to the aspect of my research that was explicitly concerned with elephant agency and culture. Even those who firmly believed in environmental conservation sometimes seemed unnerved by the possibility of communing with a sensitive, intelligent, emotionally complex, yet sadly oppressed and abused nonhuman other. Here even moreso than with the staff, I found myself tamping down my rhetoric because I did not want to become alienated from the human group. This is again not unusual in the work of ethnography. Leibling and McLean write about the challenges to the fieldworker when operating in such liminal space: "When working with these elusive, typically neglected, and possibly unsanctioned areas, the researcher is likely to feel especially vulnerable: this realm of the ambiguous would be safer left alone" (2007, 6). This bears mention not so as to make the researcher into a victim, but rather to acknowledge and anticipate the social challenge that such work may entail. I often felt lonely at the sanctuary, and struggled to balance the need to defend the undercurrent of advocacy in my fieldwork with the pragmatic necessity of being accepted and supported by my human peers. I was profoundly aware of just how difficult this kind of interspecies ethnography project would be for anyone. Mainstream Western culture and much of existing academic establishment are deeply entrenched in the mythology of anthropocentrism. Challenging the assumptions of human ascendency and dominion has the potential to create a hostile research environment.

The final major constituency of humans at the sanctuary was the constantly fluctuating body of short-term tourists. It is probably an inevitable aspect of the tourism culture that the elephants were to some extent commodified by the visitors—if not for their rides or their labor, then for their images. The hunger to photograph and film the elephants, to get the perfect shot, was a daily frenzy among the visiting humans, to the point where often times the photograph served as a kind of substitute for a more direct encounter. These dynamics are worth mentioning because this hungry consumption of the elephant's images made up a regular activity in daily human-elephant interactions. There were clearly deep and complex relationships between the elephants and the long-term staff, but these took place in a larger context of dozens of tourists entering the interspecies community on a daily basis. For these brief visitors, the cameras seemed a potential source of alienation, a way that human tourists were able to be close to the

elephants and yet still keep their privileged position, capturing and consuming the images of elephants rather than relating to them directly. To some extent I was guilty of this behavior myself, often catching myself becoming overly preoccupied with capturing impressive footage. In my own elephant interactions, my camera, however well intentioned, often got in the way of a more authentic encounter. Consider this camera frenzy from the elephant perspective: how would it color their general experience of humans, and how might it come to influence their behavior towards visiting humans over time? If the vast majority of people who visit the sanctuary have their attention trained more on these tiny electronic devices than the elephants themselves, a habituation to alienated relations seems a likely outcome.

The Trauma Context

A third group of humans at the sanctuary—local Bunong villagers brought in for both manual labor and elephant care—are impossible to discuss without addressing the horrific trauma that the Cambodian people have suffered in the last fifty years. Recent studies estimate that between one half and one third of the Cambodia population suffers from PTSD, but in the decades following the genocide this epidemic was neither recognized nor treated (Brinkley 2011). Furthermore, it is becoming increasingly evident that acute trauma in one generation can and often does become developmental trauma in the next (Cozolino 2006; Van der Kolk 2014). Thus it is a highly traumatized human population in Cambodia who are keeping elephants and utilizing them for commercial purposes. It takes no stretch of the imagination to consider the ways in which human trauma across generations would also become trauma across species. In fact, a traumatized human might be more inclined to vent their pain and rage on an animal than on a fellow human, simply because the animal has far fewer social and legal protections. Once in a neighboring region I was horrified to watch a man beating and repeatedly kicking his own whimpering pet dog in the street, while the surrounding community seemed to take no notice.

On a broader scale, if embodiment is a natural starting point for inter-species communication, we must consider how the body is treated or mistreated in the local human culture. During her own fieldwork with amputees in Cambodia, Lindsay French (1994) encountered firsthand the widespread degradation of the human body under the Khmer Rouge and its long-term cultural consequences. Indeed, the entire country continues to suffer, even decades later. The rate of deforestation in Cambodia is among the worst in the world, as corrupt government officials sell off lands for logging not only without ecological conscience, but without concern for the thousands of human beings who are also being displaced (Brinkley 2011). This is the human context that these elephants grew up in and spent most of their adult lives in, and we can no more ignore its impact on their communication than we would with a human being.

Some of the trauma these elephants suffered is visible to the naked eye: rib cages severally compressed from years of carrying tourists, sloping hips from pulling logs, eyes gone blind from bullhook strikes, pieces of ear, tail, and vagina cut off and sold in the marketplace. The sanctuary elephant in the worst shape was Milot—in addition to being blinded in one eye, her ribs were so impacted from tourist rides that her digestion was compromised, making it difficult to absorb nutrients from food and creating a haunting, emaciated look. But modern research has shown that elephants suffer psychological trauma as well (Bradshaw 2005): the developmental trauma of being ripped away from family and herd, the ongoing trauma of being held captive and forced to work, and the acute trauma of being beaten and abused. Among the most striking aspects of Bradshaw's work is the notion that trauma destroys elephant culture, and elephant culture heals trauma.

Imagine a human child, kidnapped from its family by an alien species, lacking human culture, language, education, and emotional support, forced to work as a slave or else be horribly beaten. Imagine what it would be like to try to communicate with that psychologically devastated human after she had endured decades of such treatment: the immense challenge of making contact and finding mutual ground. This story more or less parallels the life history of most of the elephants at the sanctuary. Though they have found salvation in the sanctuary walls, it is in the nature of trauma to collapse time, to haunt the victim long after the fact (Frewen and Lanius 2015). This too is a context from which human-elephant relationships at the Elephant Valley Project cannot escape.

Thus, the basics of communication between elephants and human staff at the sanctuary are largely dictated by the pre-existing socialization of these elephants into a lifetime of forced labour. Some were no doubt treated better than others, some may have developed some affectionate human relationships along the way. These elephants had spent their entire lives following human orders, and this ethos of obedience was apparent no matter the level of kindness the EVP staff offered by contrast. Each elephant had her handler, or mahout, a local Bunong villager who spent the day following the elephant around and occasionally directing its movements when it was time to eat, bathe, get a medical checkup, etc. The elephants always followed orders, though they might have shown more or less willingness depending on their mood.

I often witnessed a clear mutual affection expressed between elephant and mahout, especially in the form of touch, an interplay of arms and trunks. Each elephant had her own way of interacting with other humans, or avoiding them. Sambo, who had spent much of her colorful life in the city, was more inclined to playful interaction with strangers through a combination of gesture and touch with her trunk. Gee Nowl once flared her ears at me when I got too close, and I was told this was a warning signal to back away; I did not approach her again. Milot, the

one with the most traumatic history, often did not seem to acknowledge the presence of humans one way or another.

Contact

With only a month allotted for my research in Cambodia, I allowed myself to focus on relating more to some elephants than others. The specific decision was largely made by the elephants themselves; in general, volunteers are asked not to approach elephants, but rather to wait to be approached. For the sake of brevity, I will limit my discussion of personal elephant relationships to the contact I shared with the matriarch Ning Wan. Ning Wan, again, had the least troubled past of any elephant in the sanctuary, and most likely had the greatest number of positive human relationships in her past.

On my first day at the sanctuary, she came to me, and let me place my hand on her trunk. It was a sweet moment of simple contact, initiated by her. On a subsequent visit to Heaven Valley, she was walking past me after her bath, and instead turned at the last minute and came right up to me; she had singled me out to make contact again. I felt honored by her interest, but this came coupled with an odd moment of anxiety, because I was touching Ning Wan with one hand, and filming her with the other. I recognized that my own consciousness was divided in that moment—between relating authentically and capturing footage for study—it felt somehow duplicitous. Ning Wan disengaged and I was left wondering if she didn't like my camera, or if she had simply picked up on my anxiety in that moment. It seems quite plausible to me that if most humans use their cameras to assume a consuming stance of distance (rather than a sensitive stance of relatedness) Ning Wan might react badly to the device even if she could not possibly understand its specific purpose.

About an hour later, she approached me again, coming right up beside me in a forested area in such a way as to cut me off from most of the human group. Again, I felt a mixture of anxiety and awe, honored by her attention, but unsure about the nature of her interest, unable to shake the feeling, quite possibly projected, that she was evaluating me. She twisted the tip of her trunk up toward me while we made eye contact, as if holding out her hand for something.When I did not respond, she broke contact and moved toward the group, only to pause by my backpack and sniff it thoroughly. She then casually knocked over my camera tripod with her trunk. I resolved to not bring my camera near Ning Wan again.

On my last day in the sanctuary I spent my time connecting to the elephants through touch. I approached Ning Wan and stood before her with an open heart, simply intending to be of service to her and her species. For a long time, we looked at each other and connected, hand-to-trunk. She seemed patient, curious, and gracious. She rumbled at me gently, and I watched

her entire forehead vibrate with the deep, arcane sound. I felt the physical vibration not only in my fingertips, but reverberating also in the echo chamber of my chest. As she seemed to speak, I listened. I'm not sure how to describe the numinosity of the moment except to call it a kind of communion: a brief shared experience in the liminal space between species.

The only other word that does justice to the lived experience of such contact is *love*.

Considerations for Future Research

The question of how we humans might better communicate with elephants is a tricky one. Joyce Pool (2016) has done wonderful research recording the great variety of rumbles and vocalizations elephants make, and an ongoing systemic analysis of these vocal communications will have much to teach us. But a thorough analysis would have to be holistic: it would have to consider also how these vocalizations operate in the larger communicative milieu of touch, gesture, infrasonic vibration and chemical signaling. In human language, tone and context help to determine nuanced meanings (in the case of tonal languages, of course, tone can completely change the meaning of a word). Likewise, it is a fair hypothesis that the different dimensions of elephant communication (vibrational, chemical, touch) modify vocal communications, and vice versa. To map such a complex phenomenon is a daunting scientific task, and very much worth pursuing.

But as I hope this paper has demonstrated, the project of communicating with and otherwise understanding non-human species is only partially a scientific enterprise. Scientific method and attempts at objectivity are important, but we cannot stop there. To be thorough, we must be open to relational and hermeneutic approaches as well. Ethnography offers a promising alternative model in that it combines the scientific considerations of observation while recognizing the necessity of participatory and interpretive dimensions for thoroughly researching culture. In an ethnographic model, humans can continue to develop respectful relationships with elephants and learn to communicate with them organically. This need not be taken as an affront to the practice of traditional reductive science, but rather an expansion of available methods that contribute to a greater and more comprehensive understanding.

In addition to working with gesture, I believe conscious touch is a promising avenue for further investigating human-elephant communication. Certainly, it was the means by which I felt the deepest rapport during my brief time at the sanctuary. Elephants are highly tactile beings, and their trunks serve many of the functions of human hands. Quality of touch can convey intention, tenderness, curiosity, care, protection, set boundaries, and express many other somatic states. As bodyworker Deane Juhan writes, "[the skin's] sensitivity is so great, combined with its ability to pick up and transmit so extraordinarily wide a range of responses,

exceeding that of all other sense organs, that for versatility it must be ranked second only to the brain itself" (1995, 370). Furthermore, regarding the elephant capacity to communicate through vibration, it is worth noting that humans have dedicated receptors for detecting vibration in our skin. While most humans have not had reason to develop the vibrational sensitivity of these receptors, we know the brain is plastic and develops higher sense acuity with sustained attention (Begley 2007). Touch, then, may be a fruitful meeting ground between two very different intelligent species, an intuitive space where new insight and understanding can emerge.

These methods, and many more that may emerge through continued, robust fieldwork, can then be taken up by the larger canon of qualitative research methodologies. Qualitative inquiry has grown by leaps and bounds not only in its variety of specific methodologies, but in its internal discourse about what robust research in this arena really entails (see Denzin and Lincoln 2011). While many qualitative techniques are grounded in verbal communication, others, particularly those that have been integrated and developed in somatic and depth psychological research, provide other approaches that may serve as useful tools for studying human-animal relationships and communities.

More important than specific communication methods is the recognition that a new paradigm of animal research is now upon us. The pioneering work of Bradshaw, Ingold, Locke, Van Dooran, Kirskey, Munster and the many other researchers mentioned in this paper have shown that this work can be done and is being done, however far outside of traditional Western culture it may fall. Qualitative research into human beings is increasingly acknowledged as an important complement to quantitative methods, and it follows from this shift that comprehensive research into other species can also be grounded in phenomenology and respectful relationship. I contend that this is both a matter of ethical practice and basic intellectual honesty. By denying animals their agency, their complexity, and their sensitivity, we skew our own data in the favor of anthropocentric mythos, and too easily wield this incomplete knowledge to justify the continued exploitation and abuse of our nonhuman brethren. The challenge of how to consider the perspectives of embodied beings that do not share our abstract language centres is immense. But the fact that it is challenging is no excuse to ignore the problem, or to condone the abuse of those who cannot speak up on their own behalf. With patience, perseverance, and courage, this bridge can and must be built.

Works Cited

Bekoff, Marc. 2013. *Why Dogs Hump and Bees Get Depressed*. Novato, CA: New World Library.

Begley, Sharon. 2007. *Train your Mind, Change your Brain*. New York: Random House.

Bradshaw, Gay. 2005. Elephant Trauma and Recovery: From Human Violence to Liberation Ecopsychology. PhD diss., Pacifica Graduate Institute.

———. 2009. *Elephants on the Edge: What Animals Teach Us About Humanity*. New Haven, CT: Yale University Press.

Bradshaw, Gay and Carol Buckley. 2010. "The Art of Cultural Brokerage: Recreating Elephant-Human Relationship and Community." *Spring: A Journal of Archetype and Culture* 83: 35-60.

Brinkley, Joel. 2011. *Cambodia's Curse: The Modern History of a Troubled Land*. New York: Public Affairs.

Crapanzano, Vincent. 2007. "The Scene: Shadowing the Real." In *The Shadow Side of Fieldwork: Exploring the Blurred Borders Between Ethnography & Life*, edited by Athena McLean and Annette Leibing, 83-105. Malden, MA: Blackwell.

Corin, Ellen. 2007. "Personal Travels Through Otherness." In *The Shadow Side of Fieldwork: Exploring the Blurred Borders Between Ethnography & Life*, edited by Athena McLean and Annette Leibing, 239-261. Malden, MA: Blackwell.

Cozolino, Louis. 2006. *Neuroscience of Human Relationships*. New York: W.W. Norton.

Darwin, Charles. 2005 [1872]. *The Expression of the Emotions in Animal and Man.* In *The Darwin Compendium*. New York: Barnes & Noble.

Denzin, Norman K. and Michael D. Giardina, eds. 2008. *Qualitative Inquiry and the Politics of Evidence*. Walnut Creek, CA: Left Coast.

Denzin, Norman K. and Yvonna S. Lincoln, eds. 2011. *The Sage Handbook of Qualitative Research.* 4th ed. Thousand Oaks, CA: Sage.

De Waal, Frans. 2001. *The Ape and the Sushi Master: Cultural Reflections of a Primatologist*. New York: Basic Books.

Fisher, Andy. 2007. "To Praise Again: Phenomenology and the Project of Ecopsychology." *Spring: A Journal of Archetype and Culture* 76: 153-174.

French, Lindsay. 1994. "The Political Economy of Injury and Compassion: Amputees on the Thai-Cambodia Border." In *Embodiment and Experience: The Existential Ground of Culture and Self*, edited by Thomas J. Csordas, 69-99. London: Cambridge University Press.

Frewen, Paul and Ruth Lanius. 2015. *Healing the Traumatized Self: Consciousness, Neuroscience, Treatment*. New York: W.W. Norton.

Gadamer, Hans-Georg. 2004 [1975]. *Truth and Method*. 2nd ed. Translated by Joel Weinsheumer and Donald G. Marshall. New York: Continuum.

Ginot, Efrat. 2015. *The Neuropsychology of the Unconscious.* New York: W.W. Norton.

Goslinga, Gillian and Gelya Frank. 2007. "In the Shadows: Anthropological Encounters with Modernity." In *The Shadow Side of Fieldwork: Exploring the Blurred Borders Between Ethnography & Life*, edited by Athena McLean and Annette Leibing, xi-xviii. Malden, MA: Blackwell.

Hanna, Thomas. 1995 [1986]. "What is Somatics?" In *Bone, Breath & Gesture*, edited by Don H. Johnson, 341-352. Berkeley: North Atlantic.

Hecht, Julie. 2013. "Anthrozoology: Not a Study of Ants." Accessed 23 June 2015. http://blogs.scientificamerican.com/dog-spies/anthrozoology-not-a-study-of-ants/.

Ingold, Tim. 2008. "Anthropology is Not Ethnography." *Proceedings of the British Academy* 154: 69-92.

———. 2013. "Anthropology Beyond Humanity." *Suomen Antropologi: Journal of the Finnish Anthropological Society* 38, no. 3 (Autumn): 5-23.

Juhan, Deane. 1995 [1987]. "Job's Body: A Handbook for Bodywork." In *Bone, Breath & Gesture*, edited by Don H. Johnson, 355-280. Berkeley: North Atlantic.

Laine, Nicolas. 2016. "Conduct and Collaboration in Human-Elephant Working." In *Conflict, Negotiation, and Coexistence: Rethinking Human-Elephant Relations in South Asia*, edited by Piers Locke and Jane Buckingham, 180-204. Delhi: Oxford University Press.

LeDoux, Joseph. 2002. *The Synaptic Self*. New York: Penguin.

Leibling, Annette and Athena McLean. 2007. "'Learn to Value Your Shadow!' An Introduction to the Margins of Fieldwork." In *The Shadow Side of Fieldwork: Exploring the Blurred*

Borders Between Ethnography & Life, edited by Athena McLean and Annette Leibing, 1-28. Malden, MA: Blackwell.

Locke, Piers. 2011. "The Tharu, the Tarai and the History of the Nepali Hattisar." *European Bulletin of Himalayan Research* 38: 61-82.

———. 2013. "Explorations in Ethnoelephantology: Social, Historical, and Ecological Intersections Between Asian Elephants and Humans." *Environment and Society* 4, no. 1 (Autumn): 79-97.

———. 2016. "Animals, Persons, Gods: Negotiating Ambivalent Relationships With Captive Elephants in Chitwan, Nepal." In *Conflict, Negotiation, and Coexistence: Rethinking Human-Elephant Relations in South Asia*, edited by P. Locke and J. Buckingham, 159-179. Delhi: Oxford University Press.

Locke, Piers and Jane Buckingham, eds. 2016. *Conflict, Negotiation, and Coexistence: Rethinking Human-Elephant Relations in South Asia*. Delhi: Oxford University Press.

Locke, Piers and Ursula Munster. 2015. "Multispecies Ethnography." In *Oxford Bibliographies Online: Anthropology*, edited by John L. Jackson, Jr. http://www.oxfordbibliographies.com/view/document/obo-9780199766567/obo-9780199766567-0130.xml.

Masson, Jeffrey and Susan McCarthy. 1995. *When Elephants Weep: The Emotional Lives of Animals.* New York: Dell.

Mehrabian, Albert. 1980. *Silent Messages: Implicit Communication of Emotions and Attitudes*. Belmont, CA: Wadsworth.

Panksep, Jaak. 1998. *Affective Neuroscience: the Foundations of Human and Animal Emotions*. New York: Oxford University Press.

Parreñas, Rheana "Juno" Salazar. 2012. "Producing Affect: Transnational Volunteerism in a Malaysian Orangutan Rehabilitation Center."*American Ethnologist* 39, no. 4 (November): 673-687.

Passmore, John. 1967. "Logical Positivism." In *The Encyclopedia of Philosophy.* Vol. 5, 52-57. New York: Free Press.

Pepperberg, Irene. 2008. *Alex & Me*. New York: Harper.

Poole, Joyce. 2016. "How Elephants Communicate." Accessed 20 October 2016. https://www.elephantvoices.org/elephant-communication/why-how-and-what-elephants-communicate.html.

Presti, David. 2016. *Foundational Concepts in Neuroscience*. New York: W.W. Norton.

Reiss, Diana. 2011. *The Dolphin in the Mirror*. Wilmington, MA: Mariner.

Rendell, Luke and Hal Whitehead. 2001."Culture in Whales and Dolphins."*Behavioral and Brain Sciences* 24, no. 2 (April): 309-324.

Robinson, Daniel. 1976. *An Intellectual History of Psychology*. Madison: University of Wisconsin Press.

Schore, Alan N. 2012. *The Science of the Art of Psychotherapy.* New York: W. W. Norton.

Siegel, Daniel J. 2001. "Toward an Interpersonal Neurobiology of the Developing Mind: Attachment Relationships, 'Mindsight,' and Neural Integration." *Infant Mental Health Journal* 22, no. 1-2 (January/April): 67-94.

Solms, Marc. 2002. *The Brain and the Inner World*. New York: Other.

Tambiah, Stanley Jeyaraja. 1990. *Magic, Science, Religion and The Scope of Rationality*. Cambridge: Cambridge University Press.

Trautmann, Thomas R. 2016. "Towards a Deep History of Mahouts." In *Conflict, Negotiation, and Coexistence: Rethinking Human-Elephant Relations in South Asia*, edited by Piers Locke and Jane Buckingham, 47-74. Delhi: Oxford University Press.

Van Der Kolk, Bessel. 2014. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma.* New York: Viking.

Van Dooren, Thom, Eben Kirksey, and Ursula Munster. 2016. "Multispecies Studies: Cultivating Arts of Attentiveness." *Environmental Humanities* 8, no. 1 (May): 1-23.

Varela, Francisco and Jonathan Shear, eds. 1999. *The View from Within: First-Person Approaches to the Study of Consciousness*. Thorverton, UK: Imprint Academic.

Velmans, Max. 1999. "Intersubjective Science." In *The View from Within: First Person Approaches to the Study of Consciousness,* edited by Francisco Varela and Jonathan Shear, 299-306. Thorverton, UK: Imprint Academic.

Von Franz, Marie-Louise. 1980. *Alchemy: An Introduction to the Symbolism and the Psychology*,

13-30. Toronto: Inner City.

Watkins, Mary. 2014. *Accompaniment: Psychosocial, Environmental, Trans-Species, Earth-Based.* Accessed 3 December 2014. http://mary-watkins.net/library/Accompaniment-Psychosocial- Environmental-Trans-Species-Earth.pdf.

Watkins, Mary and Gay Bradshaw. 2007. "Trans-Species Psychology: Theory and Practice." *Spring: A Journal of Archetype and Culture* 76: 69-94.

Watkins, Mary and Helene Shulman. 2008. *Towards Psychologies of Liberation: Critical Theory and Practice in Psychology and the Human Sciences*. New York: Palgrave MacMillan.

Whiten, Andrew, Jane Goodall, William C. McGrew, Toshiada Nishida, Vernon Reynolds, Yukimaru Sugiyama, Caroline E.G. Tutin, Richard Wrangham, and Cristophe Boesch. 1999. "Cultures in Chimpanzees." *Nature* 399, no. 6737 (June): 682-685.