

ESSAY

Insights on human–wildlife coexistence from social science and Indigenous and traditional knowledge

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Article Impact Statement: Integration of Indigenous and traditional knowledge in the study of human–wildlife coexistence leads to ethical and effective conservation.

Abstract

Much work on human–wildlife conflict focuses on safeguarding wildlife from humans and vice versa, protecting humans, their crops, livestock, and property from wildlife, and mitigating negative, sometimes lethal encounters. The emphasis is on conflict, a framing that reinforces human–nature dualisms and instills the notion of humans and wild animals as adversaries. Although human–wildlife interactions are sometimes negative, they can also be neutral, coadaptive, and mutually beneficial. They can demonstrate coexistence. Conservationists have tended to overlook or simplify such relations. They have either failed to define coexistence or characterized it as the outcome of externally driven conservation strategies. Conflict has been perceived as the norm, with coexistence a distant ideal. This way of seeing ignores the many ways people have coexisted with wildlife and coadapted with wild animals in multispecies landscapes for generations. We encourage greater attention to Indigenous and traditional experiences and knowledge, and seeing how coexistence can be a norm, which sometimes includes negative interactions and conflict. Scholars in geography, anthropology, animal studies, philosophy, Indigenous studies, and multispecies ethnography offer insights into how paying attention to coexistence can reshape understanding of human–wildlife interactions that decenters humans, and actively supports ethical conservation. Contributions from social scientists include focusing on relational ways of thinking and seeing that the lives of humans and other beings are intertwined and not governed solely by conflict.

KEYWORDS

human–wildlife coexistence, Indigenous peoples, multispecies ethnography, social scientist

INTRODUCTION

The prevailing sense that humans are separate from nature is a root cause of many environmental problems. Climate change, biodiversity loss, food insecurity, and the deterioration of sustainable livelihoods can all be attributed, at least in part, to the loss of knowledge and intimacy with the natural world (Pyle, 2003). The divide originates from a belief that humans are exceptional and superior to other animals and that humans must live in and thrive under different conditions (Anderson & Perrin, 2018). It persists despite a well-documented understanding of how culture and nature are entwined, and it increases feelings of conflict between humans and other species. The

separation is reinforced by centuries of Western, colonial, and Judeo-Christian ideologies and institutions (Uggla, 2010) as well as by modern systems of resource exploitation, capitalism, and rigid classifications enforced by institutions of the state and science (Fiasco & Massarella, 2022).

Seeing humans and wildlife as separate has consequences for conservation (how and what is to be protected and for whom) and how funds are allocated (Watson et al., 2014). It has reproduced a utilitarian philosophy of humans as caretakers, endowed with rights and responsibilities to own and protect animals (Plumwood, 2012; Turner et al., 2022). The dualism can instill a notion that humans and animals are in opposition, even adversaries. It advances a narrative of humans only competing and in

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conflict with wildlife. It became a field of study, human–wildlife conflict (HWC), with subfields devoted to human–predator and human–herbivore conflicts (Karanth, et al., 2013). The field is growing in terms of publications, policies, and organizations and in expanded attention to conflicts with plants, birds, insects, and domesticated animals (König et al., 2020).

Much scholarship in HWC focuses on psychological-behavioral work on attitudes, behaviors, and incentive-driven acceptance—how to reduce conflict (Kansky & Knight, 2014; Marchini et al., 2019). Conflict can be easier to measure (e.g., crops destroyed, livestock predated, deaths or injuries) than coexistence, and variables can be compared over space and time, making it possible to devise mitigation strategies (Lagorceix & Kothari, 2009; Pyle, 2003). Conflict can overshadow other human relationships with wildlife, including neutral, interdependent, and mutually beneficial ones (Kimmerer, 2013).

A focus on conflict justifies conservation measures that separate humans from wildlife, including creating parks and reserves; erecting fences, barriers, and deterrents; and preventing and mitigating encounters by culling, translocating, or killing the animals identified as problems (Massei et al., 2010; Dowie, 2011). All can reinforce the sense that humans are separate from nature, different, and exceptional (Pooley et al., 2021; Schroer, 2021). Elizabeth Marshall Thomas (2010) described in her work how [S]ince the Neolithic ... we (humans) have distanced ourselves from other species, modifying our language, laws, and thoughts accordingly. A person is either a ‘he’ or a ‘she,’ an animal is an ‘it.’ We have thoughts, they have instincts, we have language, they have vocalizations, we have culture, they just run around in the woods, doing whatever it is they do. This is an extension of domination and anthropocentrism rooted in the English language, which extends to several scientific works and observations and elevates humans as different from other animals.

Attention to Indigenous and local communities outside Western capitalist modes reveals a different story. Indigenous and local communities follow ontologies, knowledge systems, and worldviews rooted in vital connections between culture and nature that are maintained through language, norms, livelihoods, and beliefs (Clark & Slocumbe, 2009; Dhee et al., 2019; Toncheva & Fletcher, 2022). Human–wildlife coexistence often occurs in communities in which people share history, memories, stories, and feelings of kinship and reciprocity with animals, plants, rivers, mountains, and other features of the landscape (Jolly et al., 2023; Kimmerer, 2013; Salmón, 2000). Coexistence thrives in communities and places where relationships and connections are nurtured and human exceptionalism is challenged (Diehm, 2020). Conservationists can learn these relational ways as a novel way to understand human–wildlife interactions. They can seek advice from Indigenous and local communities on ways of weaving in multiple knowledge systems, lived experiences, and ontologies to better understand coexistence (Jolly et al., 2022; Parathian et al., 2018; Pooley et al., 2021; Schroer, 2021). We recognize that conflicts are a reality and that no amount of positive framing can mask the fact that conflict, injuries, and fatalities are prevalent in shared spaces worldwide. We do not seek to downplay the challenges of living with wild animals. Rather, we note the varied nature of human–wildlife

interactions and draw attention to ontologies, philosophies, and worldviews that make coexistence possible.

APPROACH

Our essay was informed by a collection of insights from social scientists in anthropology, geography, and Indigenous studies and by observations from our collaboration with people in communities in India, Nepal, Botswana, and Amazonia. We used a combination of keywords (“*human-wildlife coexistence*,” “*Indigenous insights on wild animals*,” “*Indigenous-led conservation*,” “*multispecies ethnography*,” “*traditional societies and wildlife conservation*,” “*traditional ecological knowledge*,” “*cultural practices and wildlife conservation*,” “*ethnozology*,” “*Indigenous perspectives of wildlife*”) in a search of English language publications, ethnographic studies, review articles, and case studies (listed in Appendix S1). We focused on species characterized as in conflict with humans, such as tigers, lions, elephants, wolves, and bears, and then selected a subset of publications that showed evidence of coexistence. We asked, what are the ontologies, worldviews, and philosophies that guide human interactions with wildlife and how do people perceive animals?

We acknowledge that other coexistence studies exist beyond those we considered. Here, Indigenous and traditional communities include local communities that do not adhere to dominant Western capitalist modes of relating to and thinking about animals. This includes communities in Asia and Africa that lack official recognition as Indigenous or do not fit definitions of *settler* and *nonsettler*. All Indigenous communities and local human societies have distinct worldviews and ontologies. By identifying some of the shared understandings of coexistence, we are neither diminishing nor dismissing cultural specificity or variation. Our aim was not to prescribe solutions to conflict or offer conclusive findings about how, why, or where coexistence works. Instead, we highlighted insights from and experiences of people who are often victims of conservation and are left out of decision-making about conflict and coexistence.

TURNING TO COEXISTENCE

Decades of research in HWC show how coexistence relates to tolerance and acceptance and can be measured through attitudes, behaviors, and perceptions (König et al., 2020). Scholars have also connected social and cultural factors to coexistence, including social norms, religion, spirituality, aesthetics, and symbolism (Dhee et al., 2019). Despite the known roots of conflict, the concept of coexistence remains poorly understood (Bhatia, 2021; Pooley et al., 2021). When coexistence is presented as an extension of tolerance or incentive-driven acceptance of wild animals, it can seem like the antithesis of conflict rather than a variation. It can make coexistence appear simplistic or without problems (Fiasco & Massarella, 2022). It can also seem passive, as if people are accepting their lives with wildlife only because they have no choice or have not given it much thought (Kansky & Knight, 2014; Pooley et al., 2022; Collard, 2009).

However, coexistence is not a passive condition or merely the other side of conflict. Instead, it is the result of conscious

efforts to adapt and coadapt. It reflects ways of life and ways of being and a wide range of behaviors. It reflects humans revering and worshipping animals and treating them with ambivalence or retaliating and protecting and self-protecting (Decola, 2014). In 2023, the International Union for Conservation of Nature said coexistence is a choice people make. Carter and Linnell (2016) wrote that coexistence is a “dynamic but sustainable state in which humans and wildlife coadapt to living in shared areas where human interactions with wildlife are governed by effective institutions that ensure long-term wildlife population persistence, social legitimacy, and tolerable levels of risk.”

However, the complex, dynamic reality of coexistence is underdocumented. Much of what can be learned about coexistence is not yet written, at least not in scholarly literature. Coexistence comes from the lived experiences and knowledge of people in Indigenous and local communities, from places where coexistence is a norm rather than the exception, and from people seeing themselves as part of rather than apart from nature (Hartigan Jr., 2021; Parathian et al., 2018; Kirksey and Helmreich, 2010). This means people actively seek ways to avoid animals and provide them physical space to move freely, thereby avoiding conflict (Jolly et al., 2022). These relations have long existed but seldom examined in connected ways. The human–nature divide and anthropocentric ways of seeing and studying have hindered holistic understanding.

Historically, anthropologists paid little attention to animals. Animals were mentioned in ethnographies but usually in relation to how humans used or valued them, famously as they were “good to think with” (Levi-Strauss, 1963). The same is true of field biology, in which wildlife is studied conventionally as separate from humans. Humans are mentioned, but mostly as problematic and encroachers (Stronza & Gordillo, 2008).

FROM DUALISTIC TO RELATIONAL FRAMING

Beyond attitudes and tolerance, which are relevant, coexistence is about understanding how people relate to wildlife. What are humans doing and what are animals doing that reflect choice and coadaptation? How can such relationships be supported and sustained? Asking these questions is a step beyond conflict. It entails seeing animals in relation to humans rather than as resources or objects of study (Todd, 2014; Tsing, 2012; Watts, 2013). Rather than framing human–animal interactions in terms of costs and benefits or in terms of dualisms, with humans in one realm and wildlife in another, relational framing describes interdependence, that is, humans and other animals living and dying in multispecies communities and coexisting in landscapes that are social and ecological (Parathian et al., 2018).

Relational thinking about coexistence involves worldviews, knowledge systems, and ontologies that closely reflect multispecies ethnographies (Schroer, 2021; Todd, 2014; Tsing, 2012). It refocuses how humans interact with other animals, not as resources to be conserved but as relations to be nurtured. Knowing how local communities value and practice a relational approach to engaging with the nature can improve conservation. The relational way of looking at human–nature

interactions entails seeing nature as a bundle of relations in which social, cultural, ecological, historical, and biological aspects of humans and wild animals are entwined. This thinking posits that rather than seeing animals only in places where they are supposed to be (e.g., inside protected areas, sanctuaries, and parks) and humans in other places, one needs to see that in fact humans and wildlife cocreate landscapes and coproduce each other’s lived experiences (Ingold, 2013; Tsing, 2012).

In many societies, especially Indigenous communities, relational thinking is common. Salmón (2000) describes it as a *Rara muri* concept of *imi gara*, which extends to total interconnectedness and integration of all life in physical and spiritual. Relational thinking, as described by *imi gara*, blends the belief that all life shares the same breadth and that humans are all related to, and play a role in, the complexity of life (Salmón, 2000). This kind of worldview guides human interactions with animals centered on conflict avoidance. Abrams (2010 p. 10) noted, “While persons brought up within literature culture often speak about the natural world, Indigenous and traditional peoples sometimes speak directly to that world, acknowledging certain animals, plants, and even landforms as expressive subjects with whom they might find themselves in conversation.” This is useful for understanding coexistence with wildlife, in which relationships are based not solely on cost-benefit ratios, but also on generations of experience and interdependence. These relations are part of everyday life (i.e., culturally rooted ways of being) rather than externally prescribed or incentivized conservation, and there is no explicit framing of the ecological nobility of people or animals in such relations (Nadasdy, 2007). Even large charismatic animals are subject to being hunted, harvested, or destroyed while they are simultaneously revered, worshipped, or treated with ambivalence. In this way, conservation and coexistence are byproducts of relational thinking (Jolly et al., 2022). Anthropologists and scholars in environmental humanities have long highlighted Indigenous ontologies, traditional ecological knowledge, and other non-Western ways of engaging with the natural world (e.g., Haraway, 2018; Tsing, 2012; Todd, 2014). Though relational thinking is prevalent in animal studies, philosophy, and multispecies ethnography, it is relatively absent in HWC.

There are 6 relational ways of thinking of and interacting with animals: animals are rational and intelligent decision-makers, individuals with distinct personalities, relatives with shared origin and reciprocity, enforcers of moral conduct and behaviors, knowledge holders of landscapes, and coinhabitants with shared and entangled histories. Of course, not all Indigenous peoples and traditional communities adhere to these, but they may have some overlapping philosophies and outlooks.

RATIONAL AND INTELLIGENT DECISION-MAKERS

People in many Indigenous and traditional communities ascribe agency to animals (Bhat Dundi et al., 2023; Edelblutte et al., 2023). They consider animals rational beings with decision-making abilities (Bhattacharyya & Slocombe, 2017; Nadasdy, 2007). They act and behave based on their intelligence,

knowledge, logic, and moral sensibilities (Govindrajan, 2015). This implies that a wild animal attacking out of fear should be seen as a normal reaction from a rational being rather than used as a justification for retaliation. Jolly et al. (2022) observed that Kattunayakan communities in India understand animals hold *buddhi* (intelligence) and *vivarium* (logic) and moral sensibilities of *shari* (truth). By this rationale, animals can either decide to kill people or make some sound and leave without hurting people (Jolly et al., 2022). Similarly, the people of Himirpur in India view leopards (*Panthera pardus*) as complex, thinking individuals with whom they constantly negotiate for space and resources (Dhee et al., 2019). Acknowledging animal agency and decision-making decenters the human role in human–wildlife interactions and helps equalize animal responses to humans.

These ways of understanding wildlife challenge the long-standing perspective that animals are inferior and subordinate to humans and devoid of emotions, free will, self-consciousness, and personhood (Edelblutte et al., 2023). By acknowledging animal agency, animals are seen as sentient beings who act intentionally. It is understanding elephants and tigers for who they are and what they do as sentient beings (Jolly et al., 2022). It is seeing that animals are not just eating, mating, and fighting out of instinct, but also sentient beings with cultures of their own and histories of interacting with humans (Clark & Slocombe, 2009; Dhee et al., 2019).

INDIVIDUALS WITH DISTINCT PERSONALITIES

“Elephants in the forest are not a herd; they are a collection of distinct individuals,” a Kattunayakan community member in Kerala explained to H.J. This person said, “There is a difference between *nalla* [good] elephants and others. The good ones will not harm us, but the others that are *shahyam* [trouble] disturb humans and bring damage” (from Jolly et al., 2022). Animals in many Indigenous and traditional cultures are described as individuals with personalities and distinctness (Oommen, 2021). Some individuals may be more conflict-prone and angry than others. People understood there is more to human–wildlife interaction than simply conflict. As 1 community member said, “Not all elephants you meet in the forest behave in conflict pattern” (Jolly et al., 2022).

In a study in southern India, Bhat Dundi et al. (2023) described how farmers attribute distinct personalities to elephants: some are good, some are quarrelsome, and some are bad. People believe that, just as human beings do, elephants perceive and respond to individual humans differently. In his work with elephants of the Western Ghats, Thekaekara (2019) observed how community members were cognizant of the behavioral peculiarities of wild elephants. He cited how people fondly reference a wild elephant as *nadodi ganesan* (roughly translated as village loafer). This understanding of personalities means a wild animal’s behavior in one context may change in another and individuals of the same species may not behave uniformly. This implies that responses to wildlife and ways of engaging must vary as well (Orrick et al., 2024).

RELATIVES WITH SHARED ORIGIN AND RECIPROCITY

In many traditional communities, there is a deep understanding of wild animals beyond the lens of resources or objects, rather as relatives, kin, or family (Bhat Dundi et al., 2023; Jolly et al., 2022; Oommen, 2021; Pettersson et al., 2022(a)). In *Wild Dog Dreaming*, Rose (2011) describes the kinship between Indigenous Australians, plants, and animals and how people see endangered species as dying members of the family. In *Kinship with Monkeys*, Cormier (2003) observed the Guajá people of Brazil, who see howler monkeys (*Alouatta caraya*) as family, protecting them even as they hunt them. Among the Ese Eja people in the Peruvian Amazon, white-lipped peccaries (*Tayassu pecari*) are revered as ancestors even as they are hunted (Stronza, 2010). Daniela Peluso (2023) wrote, “By insisting that certain animals ‘are Ese Eja’, people are not merely referring to the common humanity once shared with animals. Their use of the present tense suggests that humans and animals continue to share this humanity.” By conferring animals with the status of sibling or kin, harming or hurting an animal without substantial reason is equivalent to hurting one’s own kind. Coexistence in this context means being sensible in how to treat and engage with animals (Edelblutte et al., 2023; Salmón, 2000).

When wild animals are seen as relatives and family, there is a moral responsibility to share resources and space (Jolly et al., 2022; Bhattacharyya & Slocombe, 2017; Nadasdy, 2007). As a family, they acknowledge each other’s strengths and weaknesses and do not feel distressed about sharing food or other forest resources with animals (Jolly et al., 2022; McKay et al., 2018). Working with Mishmi communities in northeastern India, Aiyadurai (2016) observed that community members perceived tigers as brothers: “Why a tiger reserve here? We do not hunt tigers; they are our brothers! Tigers and humans were born to the same mother. We kill tigers only as a last option when they become a human threat or when they are killed in traps accidentally. We are protecting them anyway.” This is not to romanticize such interactions. Participants in several studies acknowledged that coexistence involves conflicts and negative encounters. Jolly et al. (2022) and Aiyadurai (2016) observed that the perception of wild animals as relatives does not obscure the challenges of living with them. People discussed the difficulty of living well with forest relatives and navigating shared landscapes. By recognizing wildlife as relatives or kin, Indigenous people often refer to animals as our people (Jolly et al., 2022). Coexistence, therefore, involves sharing resources and spaces and accepting the forebodings that come with it. One Kattunayakan woman explained this to H.J., referencing a bear attack: “We were in the bear’s area. The animal felt threatened... and it was not the bear’s mistake; it was ours.”

ENFORCERS OF MORAL CONDUCT AND ETHICAL BEHAVIORS

In some Indigenous societies, wildlife occupies a significant sociocultural position. Animals are perceived as Gods, mediums

for ancestral spirits, and teachers (Ghosal & Kjosavik, 2015). It is common to observe local deities assuming the form of tiger, leopard, elephant, reindeer, monkey, or crocodile, which necessitates respectful behaviors toward wildlife (Vitebsky, 2006; Pomedli, 2014; Brackhane et al., 2019). Disrespectful behaviors, they fear, may lead to negative consequences and conflicts (Ghosal & Kjosavik, 2015). In this context, wildlife in some traditional cultures serve as a societal moral compass, guiding people to adopt virtues, such as tolerance, acceptance, and respect, toward animals. Similarly, it discourages greed, jealousy, or vindictiveness (Jolly et al., 2022).

In some Indigenous and other traditional communities, people talk about entering forests with pure intentions, knowing wild animals can sense malicious intent. Wrong intentions can trigger conflict and attacks. The fear of being judged by wild animals can motivate people to act ethically and morally (Nadasdy, 2007; Reo & Whyte, 2012; LaRiviere & Crawford, 2013). Seeking permission from an animal before hunting and gathering honey from bees are examples.

When wild animals are deemed as Gods and deceased ancestors, coexistence with them involves customs, norms, and rules with consequences when broken (Loivaranta, 2020; Baynes-Rock, 2013). In certain Indonesian communities, people venerate crocodiles not only as ancestors, but also as messengers from nature to announce and enforce natural law (Brackhane et al., 2019). In some societies, a negative encounter with wildlife is perceived as a punishment for violating a natural law (Ghosal & Kjosavik, 2015; Jolly et al., 2022).

KNOWLEDGE HOLDERS OF LANDSCAPES

In some communities, people perceive wild animals as knowledge holders and sources of wisdom, like teachers, deceased elders, and Gods who belong to a higher social order and deserve to be treated respectfully and fearfully (Álvares et al., 2011; Ghosal & Kjosavik, 2015; Pettersson et al., 2022; Jolly et al., 2023). In such places, observing and engaging with wild animals offers opportunities to learn about the landscape and identify safe spaces and medicinal plants. For example, in Nepal, the nomadic Raute people rely on rhesus macaques (*Macaca mulatta*) to navigate the forests safely. One man explained, “The monkeys know to avoid places that lack food and water. They find prime spots” (A. Poudel, personal communication, 15 August, 2023). They guide the Rautes to fruits and medicines and signal the presence of leopards. Similarly, for Kattunayakan people in southern India, some of their knowledge of medicinal plants comes from observing what elephants consume when they are ill (Jolly et al., 2022). In some cases, wild animals help people find resources, as in the example of honey guides and honey gatherer communities in Tanzania (Kilawi, 2023). In Jolly et al. (2022), a Kattunayakan community member explained: “If we enter a forest part without animals, then we do not like it. In those forests, there will not be anything.” In such places, community members advise the younger generation to observe wild

animals to learn about the seasons, plants, and how to tend their landscape (Turner et al., 2011).

COINHABITANTS WITH SHARED AND ENTANGLED HISTORIES

In many Indigenous communities, coexistence is tied to an understanding that the land is shared by humans and other beings. Through experiences, lives, and histories, people and wildlife are entangled (Bhat Dundi et al., 2023; Hartigan Jr., 2021; Loivaranta, 2020; Oommen, 2021; de la Lama et al., 2024). Wild animals are coinhabitants, not subjects or resources meant to serve humans. Baynes-Rock (2013) describes how Harar people in Ethiopia believe humans and hyenas (*Crocuta crocuta*) co-shape each other's worlds and form a community. Similarly, in Nepal, a Raute elder described sharing the forest and flourishing with the macaques (*M. mulatta*): “We want to go from this Earth along with the monkeys if they decide not to live here” (A. Poudel, personal communication, 15 August, 2023).

When Indigenous people recognize wildlife as coinhabitants with shared experiences and histories, they acknowledge that changes in the landscapes also affect the animals (Nadasdy, 2005 and Kimmerer, 2013). For example, in southern India, H.J. observed that people are vocal in describing how they and the wildlife face the impact of colonial suppression of cultural burning. The shared histories build empathy with wildlife. This includes forgiving an elephant for eating banana crops and rationalizing that the elephants must have been hungry and understanding animal attacks as accidents or misjudgments (Jolly et al., 2022; Oommen, 2021).

SEEING COEXISTENCE

Because humans and wildlife share and compete for space and resources, understanding coexistence is critical if challenging (König et al., 2020). The prevailing focus on attitudes and perceptions captures only a fraction of the complexity. Building on the works of Pooley et al. (2022) and Schroer (2021), we argue that understanding human–wildlife coexistence requires a more open and interdisciplinary approach, accommodating multiple and locally grounded ways of knowing and being. Indigenous ontologies, knowledge systems, and expertise are essential for learning that where one sees conflict, one can also see coexistence. Conservationists have tended to focus on conflict as the norm, something to expect. However, if one is attentive to Indigenous people's voices and experiences, one can see that coexistence has long been the norm. Digging deeper, one can see that coexistence is sometimes disrupted by the very conservation efforts held most dear, for example, parks, reserves, wilderness areas, and other places that keep wildlife separate from people, even though they were historically home to both (Jolly et al., 2023; Kabra, 2009; Pettersson et al., 2022). Indeed, Western conservation science's dualistic notions of people in one place and nature in another can impede coexistence and generate conflict.

When conservationists are open to coexistence, they can learn about human relationships with wildlife from Indigenous and local communities. Through their eyes, one can learn from their stories and knowledge of how animals are more than resources or objects of use, more than problems or pests or predators, but also beings who give and take and live with humans in shared landscapes, beings who are individuals with personalities and life experiences who make decisions and sometimes create conflict, who sometimes eat crops, kill livestock, and turn on humans (Fiasco & Massarella, 2022). It is not to romanticize or see Indigenous people as ecologically noble or coexisting in perfect harmony with animals (Nadasdy, 2005).

Sustaining coexistence implies supporting more inclusive forms of conservation and listening more attentively with humility. People whose families have lived for generations with the species hold knowledge about land and conservation. Scholars and conservationists have much to learn from them and much to gain from partnering in a true spirit of collaboration. Conservation can shift from protecting resources to sustaining relationships by adopting multispecies perspectives rather than human-centric ones. Conservation can focus on seeing coexistence and supporting interconnectedness—humans as part of nature rather than apart from it (Ghosal & Kjosavik, 2015; Loivaranta, 2020; Orrick et al., 2024; Pyle, 2003).

IMPLICATIONS OF TWO-EYED SEEING FOR CONSERVATION

Historically, wildlife conservation gave limited or no recognition to the interconnectedness and relationships between humans and wildlife that need to be nurtured. Moving away from dualistic approaches and embracing relational perspectives starts with recognizing multiple ways of thinking about and engaging with animals (Todd, 2014; Hartigan, 2021). Coexistence will come from collaboration with and respect for people in local communities and learning from Indigenous knowledge systems, experiences, and ways of being.

The future of coexistence and conservation may depend on combining insights from Western science and Indigenous knowledge. As the Mi'kmaw elder explained, this braiding of 2 sciences is *etnaptumuk* (two-eyed seeing). It refers to seeing in (at least) 2 ways, with one eye focused on the strengths of Indigenous ways of knowing and the other eye seeing the strengths of Western, or Eurocentric, ways of learning (Reid et al., 2021; Wright et al., 2019). Indigenous peoples' voices and understanding of wildlife are key in this two-eyed seeing. It starts by listening to people and seeking their guidance on how to straddle different ontologies and identify collaboratively ways of weaving in multiple worldviews without diminishing the value of any (Bartlett et al., 2012; Colbourne et al., 2020). We highlight the following relational ways of seeing and sustaining human–wildlife coexistence.

Understanding relationships

Seeing how humans and wildlife relate to each other in all kinds of ways, not just conflictive ones, compels holistic research about interactions as multifaceted and dynamic (Ingold & Pálsson, 2013). A relational lens can liberate conservation from colonial legacies and protected area rubrics by limiting or eliminating practices of exclusion, removal, and territorialization. This is true in the case of non-Indigenous peoples who can have a relational approach to nature (de la Lama et al., 2024). Relational thinking supports the anticolonial work and objectives of Indigenous and traditional communities to reclaim land and lifeways and foregrounds understanding biodiversity as biocultural diversity—which is key for effective conservation (Fuentes and, Hockings 2010; Walter & Hamilton, 2014).

Decentering humans

Combining multiple ways of knowing and engaging with wildlife includes acknowledging animal agency, personhood, and individuality and understanding animals as individuals rather than as herds (Orrick et al., 2024). This decenters humans as the only decision-makers in human–wildlife interactions. It means understanding coexistence relies not just on human responses to animals, but also on animal responses to humans. It also means understanding and engaging with animals as individuals, rational, and sentient beings who make decisions, have cultures of their own, and have histories of interacting with humans (Edelblutte et al., 2023). It also means integrating animal agency in the work toward convivial conservation, rewilding, and restoring the ecological relationships to recognize that human–nature engagements play out differently in different places (Büscher & Fletcher, 2019; Arts et al., 2016).

Acknowledging and learning from Indigenous knowledge

When conservation projects are steeped in human–nature dualisms, they can miss how human relationships with wild animals are diverse and complex, guided by histories, experiences, and worldviews that are neither linear, simplistic, or equation-driven (de la Lama et al., 2024). Therefore, interdisciplinary collaboration and decolonizing science is essential for effective conservation (Edelblutte et al., 2023; Schorer, 2021). Using a relational lens encourages conservationists to take seriously Indigenous worldviews that have historically been perceived as lacking scientific rigor. Learning about wild animals' varying perspectives and roles in human communities is an opportunity to reevaluate state-prescribed laws and regulations around conservation and instead center them on place-based knowledge (Boyce et al., 2022; Reid et al., 2024). This is an opportunity to build ethical and equitable relationships, acknowledging how conservation has a history of disenfranchising Indigenous people of land, dignity, and rights. Learning and using Indigenous knowledge to sustain coexistence needs to start with humility (Reid et al., 2024).

Practicing conservation in ethical ways

Indigenous perspectives motivate seeing humans and wildlife as entangled and interconnected (Parathian et al., 2018; Riley, 2010; Watts, 2013). This understanding challenges a conservation narrative of seeing wildlife as resources, goods, and services, with humans bestowed with the authority and responsibility to control and manage. The long-term damages of this thinking are evident, especially for Indigenous people who were forcibly removed from their ancestral lands to make way for parks, reserves, and wilderness areas (West et al., 2006; Dowie, 2011). Integrating Indigenous and traditional perspectives on human–wildlife coexistence helps build conservation approaches that are ethical and locally centered. Coexistence through a relational perspective can also encourage the integration of discourses of social and environmental justice (Martin et al., 2016).

CONCLUSION

Viewing human–wildlife interactions through a dualistic framing is reductionist. It portrays complex interactions simplistically. To address the complexity of human–wildlife interactions in its complete sense, existing conservation and HWC projects would require reworking and rethinking (Edelblutte et al., 2023; Jolly et al., 2022). Suggesting that human–wildlife coexistence is a norm is not our attempt to diminish the challenges or real conflicts for people who live with wild animals. Rather, we encourage more attention to the realities of coexistence, especially in Indigenous and local communities. This is not to hold distorted representations or ecologically romantic notions, but rather to engage with communities in ways that are ethical, meaningful, and consensual. Long-term conservation and coexistence will depend on prioritizing and listening closely, both to humans and animals, in multispecies landscapes around the world.

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