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Review

Mother Earth kinship: Centering Indigenous worldviews to address the Anthropocene and rethink the ethics of human-to-nature connectedness

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European-derived perspectives that position humanity as having dominion over Nature drive ecological crises and erode interrelatedness between human communities and natural ecosystems. In contrast, Indigenous worldviews recognize kincentric ecology, emphasizing reciprocal relationships between people and the Natural World. By centering these worldviews, we illuminate gaps in scientific literature on understanding, measuring, and cultivating nature connectedness that are central to Indigenous embodied understanding and practice. We then propose an ethical framework for respectful collaborative exchange, grounded in relational accountability, that acknowledges the rights and responsibilities inherent in human relationships with land. By rethinking the ethics of human-to-nature relationships, we highlight how Indigenous Knowledges offer critical guidance to address the Anthropocene and foster sustainable, reciprocal ways of living with the Earth.

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Viewing Earth as a gendered spirit with personhood and rights—where humanity is but a smaller part of Earth's larger story—is a perspective shared by Indigenous communities around the world [1]. This worldview carries an obligation to protect and maintain relationality, guiding practices that steward and protect the Natural World[1] [2,3]. In contrast, European-derived worldviews[2] often frame humanity as having dominion over Nature, viewing her lands as open for extraction and possession of resources to be claimed (e.g., colonization, imperialism; [4–6]) (see Box 1 for more detailed worldview conceptualizations).

Distinguishing between Indigenous and European-derived worldviews of humanity's relationship with the Natural World offers insight into how the actions of cultural groups have shaped the planet and its ecology over time, leading to the current ecological conditions of the Anthropocene period [7]. Together with Indigenous scholars like Todd [8] and Whyte [9], we define the Anthropocene period as the past 500 years, beginning with European colonization. This period has significantly impacted human and more-than-human life, climate, and ecosystems [7,10], driven by economic and social systems that devalue, extract, and exploit natural resources, which perpetuate globally through coloniality (i.e., capitalism, militarism, race-based violence) [8,9]. Foregrounding Indigenous worldviews within this context deepens our understanding of environmental and social issues through the lens of historical and present-day justice.

For this special issue on the interrelatedness of human communities and natural ecosystems, we center Indigenous worldviews to shape priorities for nature connectedness research, including how to ethically cultivate interconnectedness in alignment with kincentric ecological practices (i.e., in which humans and nature are all part of an extended ecological family; see Box 1) [1,11]. While European-derived Psychology offers insights into human behavior and mental processes, its limited integration of physical, emotional,

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[1] The capitalized terms 'Nature', 'Natural World', and 'Mother Earth' will be used to honor the Earth's nurturing and life-giving aspects.

[2] Respecting the place-based origins of the cultures we discuss highlights that the term *Western* is used in contrast to *Eastern*. Therefore, we use the term European-derived instead of Western worldviews.

Box 1. Differing worldview of Indigenous and Euro-Western Peoples.

The **Natural World** refers to the spirit of the beings who live outside of the human community, but who live as humans on Earth in different forms (e.g., water, plants, trees, rocks, bears, birds, insects).

A **worldview** is the source of fundamental beliefs and behaviors that drive values, and reflects assumptions about reality held by individuals or groups of individuals [51]. We follow the understanding described by Topa and Narvaez who assert there are two observable forms of assumptions, which we suggest exist along a spectrum, that are available in the world: Indigenous and dominant (which we refer to as European-derived) where "one has us as creatures that are intrinsically part of Nature, physically and spiritually. The other has us separated from Nature, also physically and spiritually," respectively (pg. 8 [6]).

Euro-Western refers to people of Western European descent who can trace their descendancy to Western Europe. European-derived worldviews tend to prioritize individuality, conquest and modernity, including dominion over nature, using the vehicles of colonization and capitalism toward economic growth and world-scale competition. While European-derived approaches have expedited the connection between civilizations globally, those connections have been to the detriment of many cultures and civilizations, and traits of capitalism (e.g., human and natural resources exploitation) have contributed to ecological instability.

Indigenous people refer to the preexisting peoples who have lived in a particular place prior to contact by settler populations (e.g., Europeans) all over the world. They believe themselves to be intrinsically a part of Nature in both a physical and spiritual sense and are often fighting to remain culturally intact and to maintain and preserve the ecological health on and of their original homelands. Indigenous worldviews, or Indigenous ways of knowing and doing, position their humanity as stewards of the Natural World, emphasizing a relational understanding of place within Earth's ecosystem. This perspective is embodied in the concept of "All my relations," recognizing the interconnectedness of all life.

All my relations refers to the interconnectedness of all creation and the understanding that humans are just a part of a larger system of relationships. This teaching helps us to remember to maintain balance and harmony with other animate and inanimate, the metaphysical and Spiritual beings with whom we share this world.

Kincentric ecology describes how humans live as kin with the Natural World. It is a way of seeing and engaging with the world that recognizes humans and Nature as a part of an extended ecological family that shares origin and ancestry. It recognizes relationships as layered and interdependent, thus fostering kinship that leads to sustainability and preservation of ecosystems [1].

environmental, ecological, spiritual, and cultural domains falls short in addressing global environmental and climate crises, including resulting trauma and mental health impacts among human populations [3,7]. We begin by addressing nature connectedness as a deeply relational way of knowing and doing in Indigenous worldviews and illustrate how this understanding shapes scientific inquiry and measurement. From this understanding of relationality between Nature and people, we then consider the ethical foundations of cultivating nature connectedness. Specifically, we draw attention to the role of worldview in the contemplative and nature-based practices discussed in the literature (e.g., mindfulness, Shinrin-Yoku). Bringing Indigenous worldviews to the forefront prompts reflection on unethical extraction of practices from worldview, as well as consideration of nature-based practices emerging in European-derived worldviews. This reflection and understanding is critical for disrupting perpetuation of harm. To move toward uplifting Indigenous ways of living, we propose an ethical framework that emphasizes agency in active commitment to justice, ecological balance, and the shared well-being of all relations.

Importantly, Box 2 provides our multicultural team's diverse backgrounds and positionality to this discussion. In working together, we acknowledge how our cultural backgrounds, experiences, and ways of knowing influence our understanding of human-to-nature connectedness.

Kincentric worldviews of connection

The foundations of Indigenous worldviews are rooted in deep respect and reverence for Mother Earth and situate knowledge stories about Earth as having a personhood that cannot be owned and must be shared with all of creation. Indigenous worldviews position humanity in relation to the Natural World and Earth to facilitate contemplation on purpose as a *part of* cosmology (i.e., the whole world and universe). By privileging the personhood of Mother Earth, often above their economic well-being [4], Indigenous peoples have built an interdisciplinary empirical basis of nature-based practices, such as kincentrism and sustainability, that are rooted in observation, experimentation, and adaptation, and hold depths of intellect and ancestral scientific foundation.

This perspective fosters relational accountability, where humans hold responsibilities toward the land, waters, and more-than-human relatives rather than dominion over them [6]. In contrast, much of nature

Box 2. Positionality Statement

We write as a multicultural team with different backgrounds, identities, and experiences, which we share briefly below.

Pilar Gauthier is an Indigenous psychologist and represents the Menominee and Ho-Chunk Nations. She grew up on the Menominee Indian Reservation in Wisconsin, USA, where she ties her worldview and contributions to this paper to the ongoing gifts of ancestral knowledge given by her family, her tribal community, and the Natural World. In addition to postdoctoral psychological research exploring the impacts of climate change, she contributes to the wellness work of her homelands and community through a nonprofit organization called Medicine Fish.

Dekila Chungyalpa is Bhutia and originally from Sikkim, a Himalayan state in northeast India. She is the daughter of the late Tsunma Dechen Zangmo, a Tibetan Buddhist nun and teacher, and belongs to the Karma Kagyu lineage of Tibetan Buddhism. Dekila's contributions to this paper are rooted in her biocultural identity, heritage, and training. Dekila is the founder and director of the Loka Initiative at the University of Wisconsin-Madison.

Robin Goldman is a white Jewish-American of Euro-Western descent, who grew up in Berkeley, California. She explores well-being through the lens of her training in biomedical physics, neuroscience and Buddhist/Interfaith chaplaincy, and values meaning-making informed by openness to stories, the concept of not-knowing, and the relational, interconnected nature of all that is.

Richard Davidson is white American of Euro-Western descent working as a psychologist and neuroscientist. He approaches the study of the mind from dynamic, multiple perspectives informed by both mainstream western science and Buddhist contemplative traditions that he has studied and practiced within for more than 40 years. Richie is the Founder and Director of the Center for Healthy Minds at the University of Wisconsin-Madison.

Christy Wilson-Mendenhall is white American of Euro-Western descent; she lives and works in Madison, Wisconsin, after growing up on the US east coast. While her training is in psychological science, she engages in research on multidisciplinary teams. She values dialogue in these spaces about emotions and well-being, and appreciates the opportunity to examine and address the anthropocentrism embedded in psychology frameworks within which she has worked.

connectedness research defines connection in terms of psychological closeness, emotional affinity, or a sense of oneness with Nature (e.g., Refs. [12,13]). Yet there is little discussion about land- and place-based relationality—the understanding that connection to the Natural World is not just an internal or individual experience but a lived relationship shaped by reciprocal responsibilities to place. This non-dualistic reciprocal relationality is deeply embedded in Indigenous systems around the world [2,14], including *Ubuntu* among the Bantu and Xhosa peoples of Africa [15], *Lōkahi* for Native Hawaiians [16], *All my relations* widely used by Tribal and Indigenous nations across Turtle Island [17], and *Tendrel* of Tibetan Buddhism from Tibet, the Himalayas, and South Asia [18]. However, the value of these knowledge systems—in cultivating interconnectedness that allows living systems to flourish—is either ignored and overlooked or extracted and reduced in European-derived science and political thought [14].

To highlight the imperative of Indigenous worldviews and underscore their transformative potential, Table 1 presents a comparison of Indigenous and European-derived worldview models. The ontology, epistemology, methodology, and axiology of Indigenous worldviews grounded in relational accountability transcend current psychological science perspectives, offering a new way to understand interconnectedness between social and natural systems. This interconnectedness invokes a sense of unity and shared responsibility of the diverse and complex processes uniquely applied to each specific place, time and culture, in context of the communities for whom the knowledge functions (i.e., Indigenous methodologies) [9,19,20].

Reconsidering nature connectedness

Consistent with undervaluing Indigenous worldviews, little scientific literature on nature connectedness explicitly addresses reciprocal relationships between humans and Nature [21]. Indigenous-led, community-based research is beginning to address this gap [22,23]. For example, the ʻĀina Connectedness Scale was developed with, for, and by Native Hawaiians to assess health and resilience in relation to land, Nature, and the environment [24]. Qualitative research showed themes within their Lōkahi worldview focused on ʻĀina, which loosely translates to 'land and that which feeds'. ʻĀina includes people, is integral to Native Hawaiian health, and reflects connectedness of intergenerational knowledge and stewardship passed down in cultural practices. A scale was developed for assessing the degree of felt connection to ʻĀina through behaviors, actions, and activities (focused on Native Hawaiian practices), ways of prioritizing connection with ʻĀina in the future, barriers and facilitators of connecting to ʻĀina, and ways of knowing, customs, and beliefs related to ʻĀina. Measuring Indigenous health in this way is not only a strengths-based tool for communicating with decision-makers about the reclamation of Indigenous land stewardship, but also a model for rethinking the science of nature connectedness.

In contrast, most empirical research defines nature connectedness as feeling close to or one with Nature [25], but tends to overlook reciprocal relationality [21]. Meta-analyses of these studies show that nature connectedness is consistently associated with greater psychological well-being and pro-environmental behavior [26–29]. This research has primarily been

Table 1

Overview of worldviews.

	Ontology (the nature of reality, way of being or beliefs about the world)	Epistemology (the relationship between the inquirer and the known, guides how we think)	Methodology (how we interact and gain knowledge)	Axiology (the examination of the role of ethics, values, and morals to guide practices and processes)
Indigenous worldviews	Humans exist in relation to the natural world. They have obligations to steward and care for the beings of the natural world, as a *part of* ecology. The natural world comprises valuable social interactions which influence identity, governance, and resistance to harms against Earth.	Knowledge is relevant to the needs of all creation and comes to humans in the form of a gift revealed through observing the story of Mother Earth (storytellers are a conduit for her) and therefore, belongs within the context (e.g., temporal, social, cultural) and place (e.g., land, ecology) it was derived.	*Process for coming to know & understand the world.* Approaches are time-, place-, culture-, and socially-based and therefore assume knowledge is iterative, locally created, and on-going.	Humanity's purpose is in the stewardship of the natural world wherein humans, through love and gratitude, carry purpose and responsibility to protect the rights of all our relations (including living and non-living beings who live as persons in the natural world). Daily practices (such as empathy and compassion) must matter and bring something beneficial to the world.
European-Derived worldviews	Humans' intellect, purpose, and agency are the center of reality and they are the ultimate decision makers about land in relation to humanity.	Knowledge is relevant to the purpose of humanity and there is a tendency to anchor theory development on what the scientist deems is credible (crafting of knowledge inquiry). Therefore, land and knowledge become (intellectual) property for the benefit of humanity.	*Process for gaining expertise about the world.* Approaches follow a scientific method toward knowledge creation "of the world", which privileges humanity and assumes knowledge is generated through testing hypotheses to assess theories.	Axiology tends to be framed by discipline (e.g., religion, research) typically with the purpose and responsibility to protect the rights and survival of humans and human value. European-derived axiology is varied, hierarchical, and does not consider the natural world as equal status as humans.

conducted with adults in North America, Europe, and Asia, reflecting a broad interest in interconnectedness and its benefits across different worldviews. However, reviews of this literature highlight a lack of theoretical frameworks [30]. Indigenous models are frameworks for understanding the reciprocal relationships that sustain a healthy planet [7]. Promoting understanding of deeply relational nature connectedness thus requires allocating resources to Indigenous communities (e.g., community-led projects involving research, storytelling, film, as well as philanthropic support). By recognizing that their relational knowledge systems support both the well-being of their peoples and the lands they steward, the benefits of their ways of living have the potential to extend beyond their communities [7,23].

Recognizing Indigenous narrative methodologies as research is also critical. Qualitative and nonlinear narratives are a method of observing, evaluating, and documenting phenomena that give meaning to reciprocal relationships in Nature, including recognition of more-than-human agency and sentience [31]. Indigenous inquiry practices, including storytelling, community-based research, elder knowledge, and land-based learning, involve active participation and contribution from community knowledge. Consider the following observation of Indigenous relationality to Earth: *Mother Earth is the common factor between all living and nonliving beings; it is she who brings communities together under the notion that she is all of our one Mother. In observing her spirit, we see she is alive, has agency, and her own story to tell. Her story is contemplative and describes the topography of her personality, her languages, worries, and breath. Without her, we cannot exist.*[3] Such observations are rooted in the interconnectedness of physical, spiritual, emotional, and intellectual aspects of life, allowing for deeply intimate story collection and meaning making. Indigenous inquiry shapes the direction of Indigenous 'knowing and doing'. For instance, detailed information about ecological patterns and weather changes in stories of land and animals give insight into sustainable resource management and co-living practices that address modern challenges (e.g., disaster recovery [32]).

[3] This statement reflects various teachings the first author received over time, particularly from Native American ceremony people and knowledge keepers. Within Indigenous methodologies, teachings are shared *in context*. This statement is an example of how Earth observations are taught through storytelling about Mother Earth, reflecting the cultural-spiritual-place-based context in which such knowledge is orally passed down.

Embodying worldview: ethical foundations of nature-based contemplative practices

Within the scientific focus on nature connectedness, there is a growing body of research on contemplative[4] and nature-based practices for cultivating interconnectedness. Foregrounding Indigenous worldviews prompts reflection on the limits of European-derived worldviews for engendering practices that sustain collective, planetary flourishing. Following discussion of how European-derived worldviews are shaping the nascent Environmental Psychology literature on mindfulness and Shinrin-Yoku, we offer practical guidance for ethically engaging in a scientific paradigm shift focused on cultivating interconnectedness in Indigenous worldviews.

Shifting worldviews of mindfulness practices

While age-old mindfulness practices from Buddhist traditions originate in worldviews of *Tendrel* (i.e., interdependence and interconnectedness), cross-cultural transmission is eroding these ties. A growing body of work is engaging with the contextual complexity of these practices to address such overlooked ethical issues [36,37]. Scientific research consistently demonstrates the efficacy of mindfulness practices as a therapeutic tool for reducing stress, anxiety, depression, and chronic pain [38] and is now investigating impact on pro-environmental behavior [39]. However, there is growing concern that such approaches are becoming disconnected from community and culture in ways that isolate individual 'wellness', augment consumer capitalism, and do not motivate collective action to change oppressive systems [36,37]. Situating mindfulness in an ethic of individualism—whether explicit or implicit—is counter to an ethic of interdependence in Buddhist traditions [40], in which the purpose of meditation is to benefit other beings. Mindful awareness practices can be grounded in contemplating interdependence with Nature, such as expanding awareness of the oxygen in our lungs as coming from Nature, which can foster gratitude [18,41]. Explicit consideration of worldview elevates an intercultural ethic of understanding the origins of practices and informed, respectful, and transparent cross-cultural transmission and translation [42].

Emergence of Shinrin-Yoku in modern worldviews

Shinrin-Yoku is a Japanese practice of taking in the forest through the senses that loosely translates to "forest bathing" [43,44]. With urbanization, work demands, and technostress, the Japanese government developed Shinrin-Yoku in the 1980s as a way to reconnect to Nature and improve health, especially for people living in cities [43]. Descriptions of the modern origin of this practice resemble the capitalistic, individualistic focus of European-derived worldviews, although the practice has historical and cultural roots deeply embedded in Japanese traditions of harmonious and nurturing relationships with nature [45]. Similar to the current therapeutic focus in the mindfulness literature, studies in Japan and now in other Global North countries (e.g., South Korea, U.S.) are showing promise for improving individuals' mental and physical health [46–48]. Research has yet to focus on pro-environmental efforts as an outcome, perhaps due to lessened emphasis on reciprocal human-to-Nature relationships. Notably, preservation is described as part of the initial Shinrin-Yoku campaign—people healing in forests as cultivating a desire to protect and look after them—and reflects how the forests covering two-thirds of the country are integral to Japanese culture, philosophy, and religion [43]. However, the popular application of this practice initiates dialogue around intentions to cultivate deep interconnectedness that impacts community and planetary wellbeing and studying that impact.

Indigenous axiology of respectful collaborative exchange

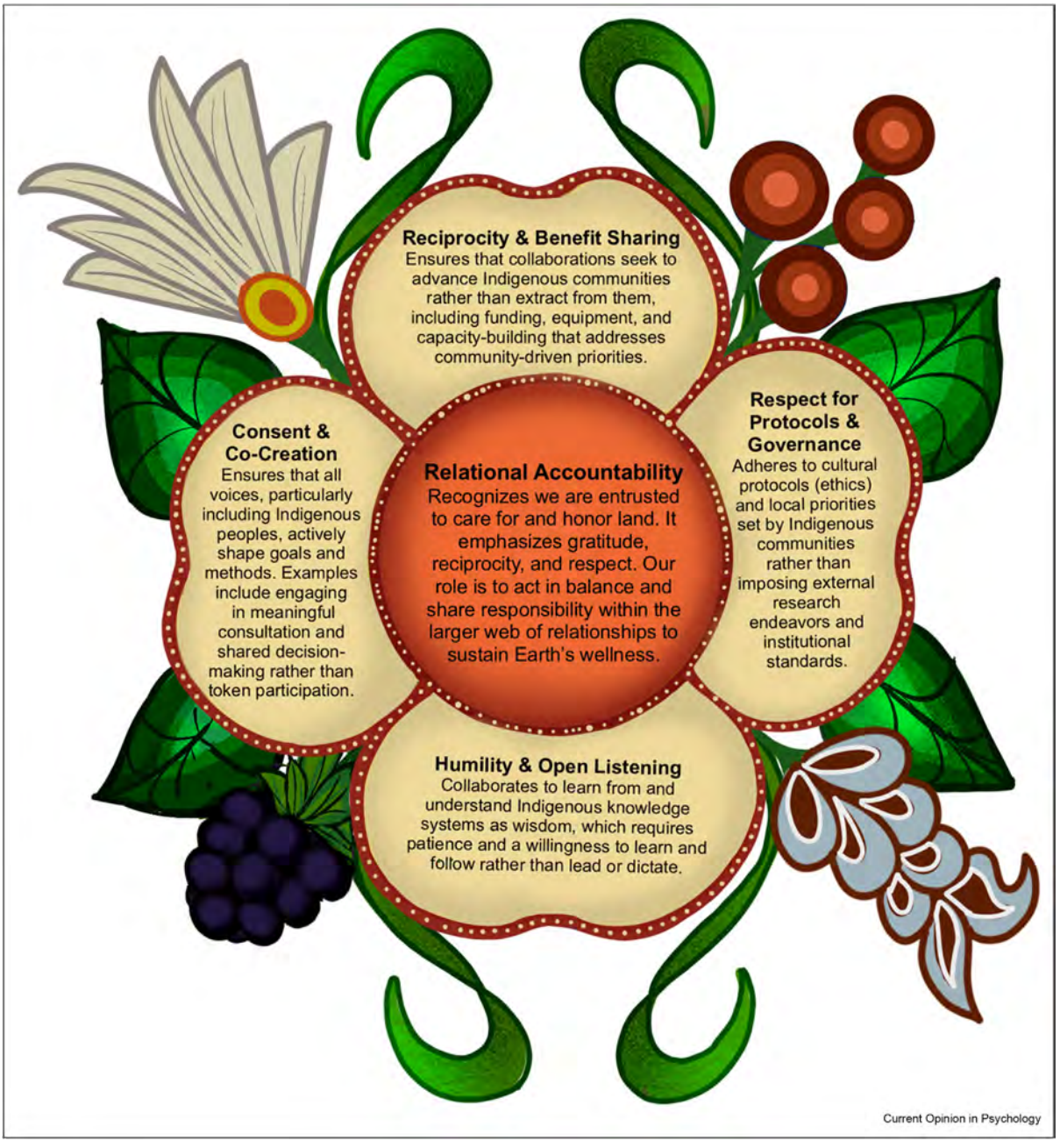
We propose an ethical framework rooted in heart-minded intelligence, which acknowledges that the stories and perspectives of the Natural World and more-than-human relatives are not merely resources for human well-being but hold intrinsic value in decision-making processes [6,49]. This perspective rejects extractive relationships with Nature and instead fosters consent and co-creation with the more-than-human world, signaling a societal shift in our approach to Nature. This shift honors the agency of lands, waters, and beings as active participants in ecological and cultural balance.

Respectful collaborative exchange is foundational to ethical engagement and is built on mutual respect, reciprocity, and the acknowledgment of diverse knowledge systems [49]. Working with Indigenous communities requires moving beyond extractive approaches and fostering relationships grounded in trust, shared decision-making, and long-term commitment. Fig. 1 offers principles to guide ethical collaboration that are grounded in relational accountability: reciprocity and benefit sharing, consent and co-creation, respect for protocols and governance, and humility and open listening.

Long-term relationship building is critical for fostering trust, understanding local priorities, and ensuring the sustainability of nature-based practices. These ethical principles demonstrate how nature-based practices can move beyond superficial engagement (i.e., living beyond a single project or funding cycle) toward meaningful, reciprocal relationships that honor Indigenous

[4] Contemplative practices have been defined as training emphasizing self-awareness, self-regulation, and/or self-inquiry to enact a process of psychological transformation [33]. A common conceptualization of mindfulness in psychological science is paying attention on purpose, in the present moment and nonjudgmentally [34]. However, there are a range of approaches to mindfulness in Buddhism, which can include the context in which practice occurs (e.g., motivations, goals, and values of worldview) [35].

Figure 1



Kincentric Ecology and Relational Accountability: Ethical Responsibility of Humans to Non-Human Beings and the Natural World. *Note*. Key concepts that emerge from the responsibilities of interconnectedness and relationships with the Natural world (i.e., Nature, people, communities) are depicted within the woodland floral designs of Woodland and Great Lakes Tribes in the U.S.

knowledge systems, protect ecological integrity, and support Indigenous-led stewardship efforts. We must uphold these principles in our work and demonstrate how it is our ethical responsibility (i.e., not an abstract ideal) to have a spirit of active commitment to justice, ecological balance, and the shared well-being of all relations. We honor all people involved in being good guests on Earth by cultivating relationships that remove cultural barriers (between Indigenous and non-Indigenous people) so that they can work together to care for Mother Earth [50].

Shifting the paradigm to kincentric nature connectedness of Indigenous worldviews

Living in right relationship with the Natural World means embracing kincentrism—recognizing all beings

and spirits of place as kin—and honoring Mother Earth through love and gratitude. To shift towards that approach, we must accept the critique that Anthropocentrism has been harmful to humans and more-than-human life. This shift requires choices that center the Natural World, which ultimately benefits human communities and individuals [11]. While literature suggests that contemplative and nature-based practices benefit individuals, fostering nature-relatedness requires more than appreciation (and must refrain from cultural appropriation that leads to commercialization of such practices); it demands a cohesion between worldview and embodiment such that nature-related practices include tangible acts that protect the Natural World, including human communities. Engaging in the kincentric ecology of relational accountability would allow us to cultivate humility and respect for Earth and the Natural World — a crucial first step for healing in the Anthropocene.

Credit author statement

Pilar Gauthier: Conceptualization, Writing — Original draft preparation, Writing — Review and Editing. **Christine Wilson-Mendenhall:** Conceptualization, Writing — Original draft preparation, Writing — Review and Editing. **Dekila Chungyalpa:** Writing — Review and Editing. **Robin I. Goldman:** Writing — Review and Editing. **Richard J. Davidson:** Writing — Review and Editing.

Declaration of competing interest

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Data availability

No data was used for the research described in the article.

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Further information on references of particular interest

1. ** Redvers and colleagues are a group of Indigenous scholars, practitioners, land defenders, respected Elders, and knowledge-holders representing Indigenous communities around the world using Indigenous methods to conceptualize the determinants of planetary health. Ten individual determinants and three primary interconnected levels of determinants emerged through a consensus process of research. The three primary levels included Mother Earth, interconnecting, and Indigenous peoples' levels. The authors' determinants of planetary health framework is essential for understanding how Indigenous knowledge is inherently interconnected with people and the environment and for making progress toward the health and sustainability of the planet and Mother Earth.

2. ** This article explores Indigenous relationality as a model of human prosocial behavior and self-transcendent emotions within the perspective of Indigenous science ethics of belonging. The authors describe the emergence of two foundational concepts – kin relationality and ecological belonging – which constitute

Indigenous human nature as a complex organizing system of human emotion, cognition, motivation, and action that is collectivistic and self-transcendent toward sacred stewardship. Indigenous scientific inquiry and an interdisciplinary approach offers a cultural understanding of kin relationality and ecological belonging, how these core concepts shape self-transcendent emotions, and how they can guide future inquiry in cultural psychology.

3. ** This article was written and grounded in the editors' own experiences of enduring vulnerability and victimization of global climate change, systemic racism, and neoliberal capitalism stemming from their lived experiences as Indigenous peoples and representing local communities (IPLCs'). Grounded in the geological epoch of the Anthropocene, the authors center IPLCs' cosmologies, onto-epistemologies, and knowledge systems to expand the discourse of the Anthropocene beyond Western epistemologies. They assert the criticality of IPLCs' knowledge systems as the pathway for learning or relearning responsible and ethical custodianship of the land and natural world.

4. ** This introductory chapter offers an overview of the importance of Indigenous storytelling as a research methodology and its relevance in informing mainstream, Eurocentric, and anthropocentric understandings of the land. To center Indigenous voices in the discourse about environmental issues and political decision-making, the author uses Indigenous poetry and essays to exemplify the profound interconnectedness between Indigenous epistemologies. This chapter is critical for grounding readers to critically examine their perspectives in reference to Indigenous worldview.

6. ** This book highlights Indigenous knowledge and wisdom by presenting 28 precepts which make a strong case for shifting from dominant Western paradigms to Indigenous worldview. It centers the voices and contributions of Indigenous leaders worldwide who are committed to building a path toward a sustainable, interconnected future. Each chapter explores a precept that reflects Indigenous ways of knowing, such as leading with the heart over the head and centering collective responsibility over individual "rights." Each chapter presents a precept by beginning with a speech or text by an Indigenous leader, followed by a conversation between the authors which allow readers to reflect on and apply meaning through their own lens.

18. ** A framework for Deep Resilience in the Anthropocene is discussed by the Loka Initiative team (https://www.lokainitiative.org/), which emerged from dialogue with over 40 researchers, academics, community experts, clinical psychologists, and contemplative leaders during the Resilience in the Anthropocene Summit. The framework for Deep Resilience advances inner, community, and planetary resilience as a unified vision and goal. Such a unified approach is required to subvert and overturn systems of unsustainable extraction and exploitation of natural resources.

22 ** This article, written by Kanaka Maoli scholars born and raised in Hawai'i, discusses a three-point perspective on the connection between large-scale (adverse) ecological events and personal wellbeing as a solution to the United Nations' Sustainable Development Goal Three regarding healthy lives and wellbeing for all. This perspective asserts that (1) Indigenous wellbeing provides a blueprint for equity, balance, stewardship, and sustainable relationality to the environment wherein (2) wellbeing is defined locally and culturally and (3) includes island nations and communities in the discussion on global wellbeing.

24 ** This article describes development of the 'Āina Connectedness Scale with, for, and by Native Hawaiians. An example of their community-based approach is the project going through a name-giving cultural process that gives life to the named entity, resulting in the identity of Ke Ola O Ka 'Āina (loosely translated as life of the land). This research demonstrates a strength-based, holistic approach to honoring deep relationships with land and nature, including ancestral knowledge, and has implications for communities who have experienced significant disconnections from land.

32 ** This article, written by a team of Indigenous and non-Indigenous academics, discusses Indigenous healing in the context of disaster recovery to deconstruct the forces of western colonial and settler colonial structural powers to enhance culturally responsive practices for working with Indigenous communities affected by disasters. The authors identify an Indigenous-based healing-informed approach that emphasizes wellbeing as a social process, where the source underlies the roots of trauma and leads with intercultural safety toward thoughtful and respectful dialogue. The authors posit that an interdisciplinary healing-centered approach that integrates the complexity of experiencing multiple disasters, community context, and systemic inequalities can apply to and support all communities affected by disasters.

49. ** In this insightful work, Kimmerer, a Potawatomi botanist and author, explores the ethic of reciprocity within what she calls the gift economy, using the serviceberry and other more-than-human beings as teachers. Drawing upon Indigenous wisdom she gathered over her lifetime, she encourages readers to challenge their thinking about how dominant economic models perpetuate scarcity, competition, and hoarding. Through storytelling and reflection, her model advocates for an economy rooted in abundance, relationships, and care for the Natural World.