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A cornerstone of current environmental policy is the debate that has repeatedly raged over protecting nature for humans' sake (instrumental values) or for nature's (intrinsic values) (1). This narrowed debate suggests that these two kinds of values are sufficient to motivate widespread environmental protection and restoration. But a primary focus on intrinsic and instrumental values may fail to resonate with many people's views on their personal and collective well-being or "what is right", including as it regards nature. Without complementary attention to other ways that value is experienced by people, such a focus may inadvertently promote worldviews at odds with fair and desirable futures. It is time to engage seriously with a third class of values, one with diverse roots and current expressions: relational values.

What Are Relational Values?

Few people make personal choices based only on how things possess inherent worth or satisfy their preferences (intrinsic and instrumental values). They also consider the appropriateness of how they relate with nature and with others, including the actions and habits conducive to a good life, both meaningful and satisfying. In philosophical terms, these are *relational* values (preferences, principles and virtues associated with relationships, both interpersonal and as articulated by policies and social norms), including the sub-class of *eudaimonic* values (values associated with a good life) (Figure 1)(2, see supplementary materials for additional references throughout). Relational values are not present in things but derivative of relationships and responsibilities to them (Figure 2). In this sense, individual preferences and societal choices can be questioned based on their consistency with core values such as justice, care, virtue and reciprocity.

Relational notions of values are prominent across a wide swath of humanity, including classical (e.g., Aristotelian), contemporary western, Indigenous (e.g., *Tsawalk*, *Sumak kawsay*), feminist (e.g., care ethics), and eastern philosophies (e.g., Confucian, Buddhist). Notions of a good life rooted in relationships are expressed in diverse worldviews including *Ubuntu* in South Africa, the Gandhian Economy of Permanence in India, *Buen Vivir* in several Latin American countries, and North American 'back to the land' movements. Moreover, the five 'moral foundations' common to many people—purity/sanctity, authority/respect, in-group/loyalty, fairness/reciprocity and harm/care (3)—are better understood through lenses of relationships and a good life than through instrumental or intrinsic values. Pope Francis's highly influential encyclical "On care for our common home" was abundant in its expression of relational values (4).

It does not matter that *in theory* intrinsic and instrumental values might be stretched to include relational considerations; what matters is that the usual framings of instrumental and intrinsic values fail to resonate with many lay people and decision-makers. In social contexts of all kinds, including friendship, marriage, partnerships, parenting, extended family, community, and teams, many people naturally think of *what is appropriate for that relationship*, not only *what is beneficial* for us, others, or nature. Of course, we may derive (and provide) considerable benefits, consciously, sometimes deciding that a focus on the relationship itself helps realize such benefits. Conversely, we may resist arguments that rely only on instrumental or intrinsic logic, and be motivated more by the *relationship*, which is *an end in itself*.

Relational Values and Nature

Relational values also apply to interactions with nature. Some people's identities are rooted in long-term care and stewardship, such as stream-keepers and urban or rural farmers. Some people and social organizations hold worldviews that encompass kinship between people and nature, including many indigenous and rural societies, and the many who subscribe even partly to the notions of 'Mother Nature', 'Mother Earth', Gaia, etc. (even if they also cringe at the terms). Many people believe that their cultural identity and wellbeing derive from their relationships with human *and* nonhuman beings, mediated by particular places (Figure 2b,c). Caring for and attending to places can be essential for

perpetuating cultural practices and core values (e.g., their *proyecto de vida* (5)—a collective vision for a self-determined and sustainable life in the community). By these views, the value of the Land is not independent of humans (i.e., not intrinsic). Moreover, it may be treacherously reductionist if not offensive to suggest that nature exists to provide (instrumentally) utility to humans (6). Such views are not limited to indigenous people: when asked about benefits from land or seascapes, many people of diverse backgrounds describe intimate kin and stewardship relationships with them (7, 8) (Figure 2d).

Although intrinsic and instrumental values are critical to conservation, thinking only in these terms may miss a fundamental basis of concern for nature. Whereas intrinsic and instrumental values are often presented as stark alternatives, many important concerns may be better understood as *relationships*. Consider a site deemed sacred, associated with collective histories, ancestors, or sustenance of many kinds. Is it valuable intrinsically (independent of human valuation), or instrumentally (for preference satisfaction)? Whereas the former might feel sterile or dismissively quaint, the latter seems to mistake symptom for cause: satisfaction *derives from* the sacrosanct collective relationship, it does not *produce and reproduce* sacredness. Thus, relational values link and enliven intrinsic and instrumental considerations.

Overcoming the Baggage of Instrumental Value Framings

Certain baggage accompanies instrumental notions of value. As a means (instrument) to something else, a thing is potentially replaceable. Money, as the universal equivalent, is the most common metric of that substitutability. Although instrumental values include concerns about life and livelihood-sustaining services, instrumental and commercial values can easily become blurred, as in market-centric ideologies and conservation programs involving some measure of commodification of nature and privatization of rights (9). Although seminal writings about ecosystem services pertained broadly to human well-being and not just monetary values (10, 11), powerful institutions have prominently promoted a neoliberal notion of ecosystem services, focused on their implementation in markets and transactions, payment schemes, and cost-benefit analyses (12). The controversial notion of putting a price-tag on nature (13) might be avoided through relational approaches (see Policy Applications).

Recognizing relational values may also solve the dilemma that cultural ecosystem services are both everywhere and nowhere (14). Cultural ecosystem services, as nature's contribution to non-material benefits derived through human-ecosystem interactions, are 'everywhere' because they are inextricably intertwined with regulating and provisioning services in *relationships* of material and extra-material benefits (Figure 2d). Cultural services are thus better understood as the filters of value through which other ecosystem services and nature derive importance (15). Conversely, they are 'nowhere' in that many cultural ecosystem services are missing from assessments and resulting policies. Cultural considerations fit poorly into the instrumental framing of ecosystem services because they are *inherently relational*: Cultural services are valued in the context of desired and actual relationships (Figure 1).

Reflections on 'a good life' offer a partial defense against runaway consumerism, a fundamental driver of ecological degradation. Whereas instrumentalism considers value as derived from the satisfaction of preferences whatever they are (16), the relational notion of eudaimonia ("flourishing") entails reflection on the appropriateness of preferences, emphasizing that value is derived from a thing's or act's contribution to a good life, including adhering to one's moral principles and maintaining the roots of collective flourishing (2). Although the term is abstruse, the longstanding idea of eudaimonia brings attention to relationships between people and nature, and to the foundations of well-being (e.g., trust in neighbors, empathy, mindfulness, and purpose, rather than an accumulation of things) (17, 18). Instrumental views generally consider self-limitation of consumption a loss to be avoided. A relational/eudaimonic perspective, in contrast, might welcome or instigate self-motivated limitation—for example, holidays that deemphasize consumer gift-giving in favor of convivial shared experiences—as a shift toward more meaningful lives.

Policy Applications

Relational-value approaches to environmental management and conservation have yielded successful outcomes over millennia. Taboos that have sustained resources in many regions are principles of appropriate actions, linked to personal virtue, embodied through social relationships. The literature on human dimensions of conservation is rich with examples in which ignoring or overriding local relationships with nature resulted in perverse outcomes. Meanwhile, several contemporary conservation successes are attributable to relational-value thinking. In Costa Rica's Area de Conservación Guanacaste, Daniel Janzen engaged with local meanings and norms in proposing a new goal of management (from conservation to restoration and 'wildland gardening') (19). The same strategy of building local relationships and rooting identities in biodiversity has been popularized in over 50 nations by an organization called Rare via 'pride campaigns' for endangered species. There is ample room for more such approaches rooted in new or existing taboos, norms, and identities.

Environmental policy and management should always consider the kinds of relationships people already have with nature, and how these might be engaged to lessen the negative effects of human lifestyles on ecosystems and enhance positive ones. To be more than mere marketing, it must reflect on and possibly rethink conservation in the context of local narratives and struggles over a good life. Five examples follow.

First, restoration or conservation activities can enable widespread participation in planning and implementation (20, 21) to strengthen locally owned "cultures of nature" (21). Such people-centric activities might be perceived as more legitimate and more broadly inviting by engaging relationships with nature, with people through nature, and vice versa (e.g., 22).

Conservation is still often thought of as something imposed upon local peoples by international constituents; it must instead be seen as something we all embrace collectively as good stewardship. For instance, many payments for ecosystem services are tightly constrained payments for particular actions decided centrally (advancing commodification in equations of dollars per tree or per hectare). Such programs can be redesigned to foster existing relationships among landowners and with the land, engaging landowners and communities to undertake stewardship actions of their design through cost-sharing (e.g., via a grant- or reverse-auction model). Such cost-sharing for community-based or locally designed conservation should mitigate widespread concerns about fairness associated with the prevailing market-based approach to PES, and enable more effective and creative conservation.

Second, including relational values could help conservation planning integrate approaches rooted in both western science and local or traditional knowledge. Doing so would give appropriate priority to existing ways of 'knowing' landscapes and seascapes, perhaps increasing local appreciation for systematic science-based approaches (23), and vice versa.

Third, environmental initiatives could solidify and adapt home-grown stewardship by leveraging social relationships. The bond between parent or mentor and child can serve as a conduit for social norms of respect for, knowledge of and passion about nature, via activities including fishing and hunting, foraging or gardening, as well as hiking or bird-watching. It is also possible to cultivate values and relationships through prolonged and repeated experiences with peer groups, via outdoor work or adventure. Bonding is facilitated by explicit disarming of defenses as through play, struggling and suffering together, and celebrating (24). In rural resource-based communities, which suffer from substantial out-migration but historically featured social ties to the land, the task may be to enable the continuation of such practices in increasingly environmentally sensitive ways.

Fourth, employing relational values might extend care for our places into care for other people's places (e.g., via the Golden Rule, a foundational relational principle, "Do unto others ..."). The importance of social relationships for nature applies equally—but differently—to rural communities, with tangible relationships to nature, as to urban ones whose relationships with rural landscapes is part imaginary and part material degradation via consumption through global supply chains. Perhaps by cultivating relationships with organizations, and culturally sensitive relationships with faraway places, NGOs might jumpstart a movement that takes real responsibility for the roles we play as complicit actors in market-driven environmental impacts (e.g., paying to mitigate impacts via the aforementioned reverse auctions, akin to Kiva for conservation). Contrast the ingredients for lasting bonds with the social gatherings typical of conservation organizations: stiff, formal, sometimes luxurious donor dinners and receptions where interpersonal connections may often be fleeting.

Fifth, more sustainable relationships with nature might come in part from more responsible relationships to the products that are increasingly fixtures of 'modern' life. Planned obsolescence of many products fosters ephemeral and purely utilitarian relationships. Cultivating lasting relationships with things, e.g., through 'fixer' or do-it-yourself workshops, might counteract disposable mentalities and also reduce environmental impacts associated with resource extraction and manufacturing.

A relational values approach cannot eliminate tradeoffs, but the strategies above should yield broadly viable approaches to sustainability, in part by transcending the unhelpful dichotomy of sustaining either human well-being or nature for its own sake.

A culture change in environmental policy and practice may be necessary. Any plan to foster relational ('warm fuzzy') values yields protests that it detracts from 'real' conservation. Investments in relationships and identities should not need justification based on short-term outcomes for biodiversity or human well-being. Without investing in human-nature relationships and broadly shared values, the pro-environment community may soon find that the relational values that have always propelled it are rapidly deteriorating. Fortunately, relational-value resurgences from other sectors might be leveraged for environmental protection (e.g., the 'care economy', connected parenting, and farmer's markets movements).

Relational and eudaimonic values are finally receiving attention in governmental circles, including the Intergovernmental Platform on Biodiversity and Ecosystem Services (25). If activists, researchers, practitioners, and policymakers internalize this message, perhaps environmental decisions will better account for our relationships with nature and many notions of a good life. Attending to such values is key to the genuine inclusion of diverse groups in environmental stewardship and to achieving social-ecological relationships that yield fulfilling lives for present and future generations.

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Figure legends:

Figure 1. The difference between the instrumental and intrinsic value framings that dominate environmental literatures and relational values. Whereas **(A)** the former values pertain only to the value inherent in an object (intrinsic), or the value of the object for a person (instrumental), **(B)** relational values pertain to all manner of relationships between people and nature, and between people about/via nature. Here we distinguish between those relationships that are felt primarily at individual vs. collective levels. Some can fall into either the individual or the collective categories (e.g., moral responsibility to non-humans).

Figure 2. Relational values as expressed in images and quotes. **(A)** A young water bird (*Charadrius* sp.) in a human hand. In Toni Morrison's Nobel lecture, she tells the story in which young people approached an old woman who was reputed to be clairvoyant but blind. They ask her repeatedly whether the bird in their hands is living or dead, until she finally answers as quoted. Restated: regardless of a thing or being's current state, what matters most is our responsibilities, which stem from our relationships with those things. Photo: Berta Martín-López. **(B)** Transhumant shepherds and sheep dogs on their annual migration from the north to the south of the Iberian Peninsula. The relationship goes well beyond management for human benefit. The quote from Antonio Machado's poem ('Wayfarer, there is no path') is popular among transhumant shepherds as inspiration to maintain their relationships (with animals, people, and nature more broadly) and cultural identity through active ritual care. Photo: Berta Martín-López. **(C)** Ancient olive tree on Aigina Island, Greece, 1500-2000 years old. The tree, part of a grove, is no longer harvested but has great symbolic significance for island people. Trees can be "living monuments", relating people and nature with a local place and its history. Photo: Henri-Paul Coulon. **(D)** Salmon fishing on the

west coast of North America is particularly rich in relational values, as illustrated by one interviewee's quote. From Klain et al. 2014 (see supplementary materials). Photo: Jonathan Taggart.

Figures:

Figure 1:

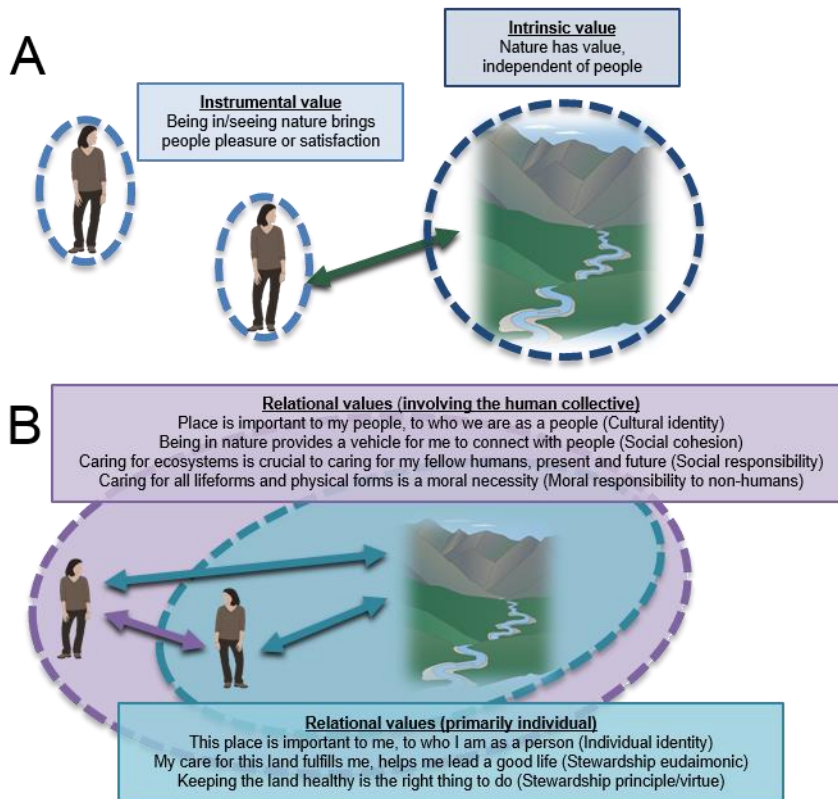
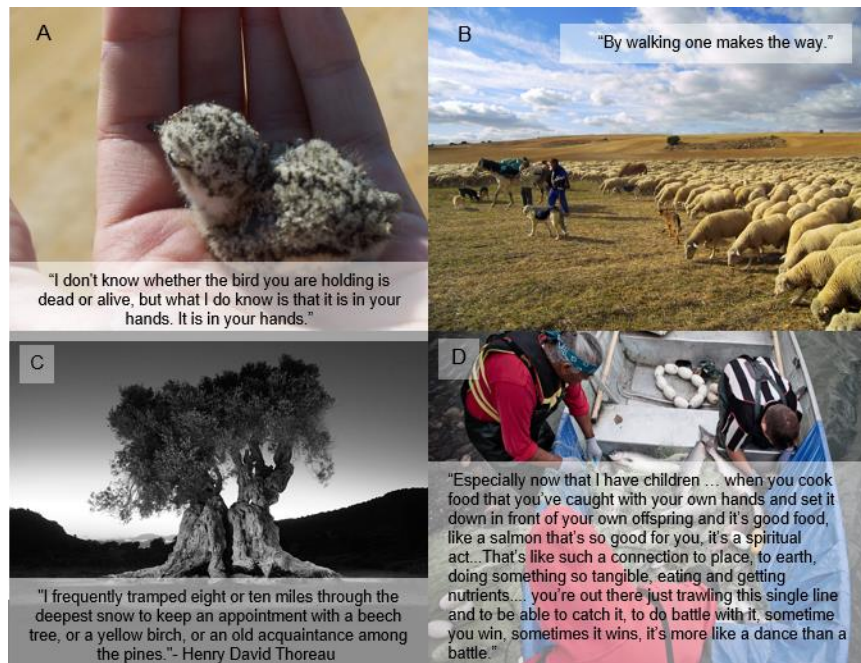


Figure 2:



Supplementary Materials:

This supplement provides additional references for interested readers, in the order in which the relevant points appear in the main text.

Regarding intrinsic and instrumental values in conservation:

Justus, J., M. Colyvan, H. Regan and L. Maguire (2009). "Buying into conservation: intrinsic versus instrumental value." *Trends in Ecology & Evolution* **24**(4): 187-191. <http://dx.doi.org/10.1016/j.tree.2008.11.011>

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Atleo, E. R. (2007). *Tsawalk: A Nuu-chah-nulth Worldview*, UBC Press.

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Regarding feminist care ethics:

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Regarding the Latin American concept of Buen Vivir, or Vivir Bien:

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Regarding the five 'moral foundations':

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Regarding values being derivative of relationships and responsibilities to things:

Naess, A. (1989). *Ecology, community and lifestyle*. Cambridge, Cambridge University Press.

Regarding identities rooted in long-term care and stewardship:

Lyons, O. (1980). An Iroquois perspective. *American Indian Environments: Ecological Issues in Native American History*. C. Vecsey and R. W. Venables, Syracuse University Press: 171-174.

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Regarding the Latin American concept of local proyecto de vida, including the Land as the shared place where humans and nonhumans dwell, flourish, and care for each other:

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Regarding views of human interdependence with nature, broader than indigenous people:

Raymond, C. M., G. Singh, K. Benessaiah, et al. (2013). "Ecosystem services and beyond: Using multiple metaphors to understand human–environment relationships." *BioScience* 63(7): 536-546.

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Regarding the history of ecosystem services in relation to the domination of neoliberal agendas and conservation programs involving some measure of monetary transaction and privatization of rights:

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