

Intrinsic values in nature: Objective good or simply half of an unhelpful dichotomy?



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ABSTRACT

Two generations of conservationists and philosophers have built a strong case for intrinsic values in nature; they are the basis of the normative postulates of conservation biology. I argue that the recognition of intrinsic natural value is a fundamental and non-negotiable aspect of an eco-evolutionary worldview. Recently, relational values, “preferences, principles, and virtues associated with relationships”, have been proposed as a third category of values in nature, which may help to resolve the debate between instrumental and intrinsic valuation. By depicting intrinsic values as part of an unhelpful dichotomy between anthropocentric and ecocentric values, the current assessment of relational values fails to adequately account for the modern philosophical view of intrinsic natural value. The recognition of intrinsic natural value is not merely an academic exercise, but rather a vital aspect of conservation of the biosphere; recognition of value entails the obligation to do what is right, i.e., protect the good. Any attempt to reframe the discussion about values and environmental protection through more formal recognition of relational values will need to more clearly address how relational and intrinsic values coexist and how they can jointly form the basis for nature conservation.

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1. Relational and intrinsic values in conservation

A recent opinion piece in the Proceedings of the National Academy of Sciences wished to “reframe the discussion about environmental protection” (Chan et al. 2016). The authors contend that an “unhelpful dichotomy” exists among conservationists over whether nature should be protected for humans’ sake (*instrumental values*) or for nature’s sake (*intrinsic values*). They write that it is time to engage relational values to develop “more productive policy approaches”. Relational values are defined as “preferences, principles, and virtues associated with relationships, both interpersonal and as articulated by policies and social norms” (Chan et al., 2016), and they have been considered as a category of values alongside intrinsic values (Muraca, 2011). As Chan et al. note, relational values have long been implicit in philosophy (e.g., Regan, 1986); they also have always been a part of conservation and environmental policy (think Boy or Girl Scouts, or “Take a kid fishing” day). Although a more inclusive dialogue of conservation values is certainly warranted (Pearson 2016; Tallis et al., 2014), it is unclear how engaging relational values will differ from the current instrumental-value viewpoint (instrumental values are a

subcategory of relational values in Muraca’s (2011) “map of moral significance”). More importantly, however, Chan et al.’s assertion that intrinsic values are merely part of an “unhelpful dichotomy” that “may inadvertently promote worldviews at odds with fair and desirable futures” greatly over-simplifies the modern philosophical view of intrinsic values and how these relate to conservation.

The idea that we need to reframe the discussion of values rests upon the assumption that intrinsic values in conservation biology have somehow failed to resonate with the public and policy makers, an assumption recently refuted (Kopnina, 2016; Vucetich et al., 2015; Doak et al., 2014). Conservation biology is a vital and growing discipline, contributing not only to solving environmental problems but also to real-world changes like revising economic theory (Spash, 2015); this vitality is based in part upon the recognition of intrinsic natural value, which has been a foundation of conservation biology since its inception (Soulé, 1985 and see *Conservation biology and the eco-evolutionary land ethic* below). In the same way that we need not reframe the discussion about equality of all humans because not all slavery in the world has ended, we need not necessarily reframe our concept of intrinsic value in nature because we have yet to accomplish a comprehensive conservation of biodiversity. If we wish to “rethink values and the environment” (Chan et al., 2016) we need to look much more carefully at intrinsic values and their role in conservation.

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No serious discussion about conservation can neglect to account for peoples' motivations, and hence nature's instrumental (and relational) values. I have seen no environmental philosopher, however, argue that a pluralism of viewpoints is unwelcome in solving our current ecological crisis – the opposite has been the case in fact (Cafaro & Primack, 2014; Cafaro & Sandler, 2010; Callicott, 2013). There no longer remains any doubt that the degradation of Earth's biodiversity and ecosystem services is among the greatest challenges facing humanity today. We have already entered the 6th mass extinction in Earth's history (Ceballos et al., 2015) and crossed critical planetary boundaries (Steffen et al., 2015), the first such changes ever to be driven by a single species. Most would agree with Ehrlich (2014) (that conservationists must mobilize to promote understanding and action to stem the tide of habitat loss and extinction that threatens the very existence of the biosphere. Many would also agree this understanding must be philosophical as well as scientific (Rolston, 2012; Callicott, 2013). Such concern for environmental degradation is not new among scientists. The environmental crisis of the mid-20th century brought us visionary leaders like Rachel Carson and Aldo Leopold, who, while addressing immediate threats to human welfare, first asked us to look more deeply at how we value nature (Cafaro, 2001). Perhaps there was intrinsic value in nature, and discovering this value would help us to avert environmental catastrophe? The concept of intrinsic natural value was soon incorporated into two new disciplines that arose to address environmental protection: conservation biology and environmental ethics.

2. Conservation biology and the eco-evolutionary land ethic

By the 1980s scientists had become aware of a new environmental crisis: the global loss of biodiversity was gaining international attention for the first time (Norton, 1986). An oft-cited 1985 issue of *Bioscience* included seminal articles on biodiversity (Wilson, 1985), conservation biology (Soulé, 1985) and duties to endangered species (Rolston, 1985). Today, the first organizational value for the Society of Conservation Biology (SCB) still states: "There is intrinsic value in the natural diversity of organisms, the complexity of ecological systems, and the resilience created by evolutionary processes." In the same issue of *Bioscience*, Rolston (1985) proposed an "unprecedented mix of biological sciences and ethics" would be needed to understand our moral duties towards species – Western philosophical thought had hitherto confined itself largely to individual organisms, mainly humans (Callicott, 2006). A generation of philosophers have now addressed how intrinsic natural value builds upon the collective human history of moral thought (Callicott, 2013; Rolston, 2012). The upshot is that they have built a strong case for intrinsic values in nature, which is now widely accepted by conservationists (Cafaro & Primack, 2014; Doak et al., 2014; Vucetich et al., 2015). The third organizational value of the SCB states: "Maintaining and restoring biological diversity are individual and collective responsibilities of humans". The link here is that value implies duty – the fact that an object (an organism) or a process (speciation) is good entails upon a moral being the duty to do what is right, to conserve the good.

This modern development in Western philosophical thought draws largely upon Aldo Leopold's (1949) land ethic, in which he famously wrote: "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise". Leopold recognized that a land ethic required an extension of ethics beyond the human-centered (anthropocentric) value theory that had dominated Western thought since the Enlightenment. He wondered why, 100 years after Darwin had given us back our place in the natural world, people had not yet recognized this morally, that an eco-evolutionary

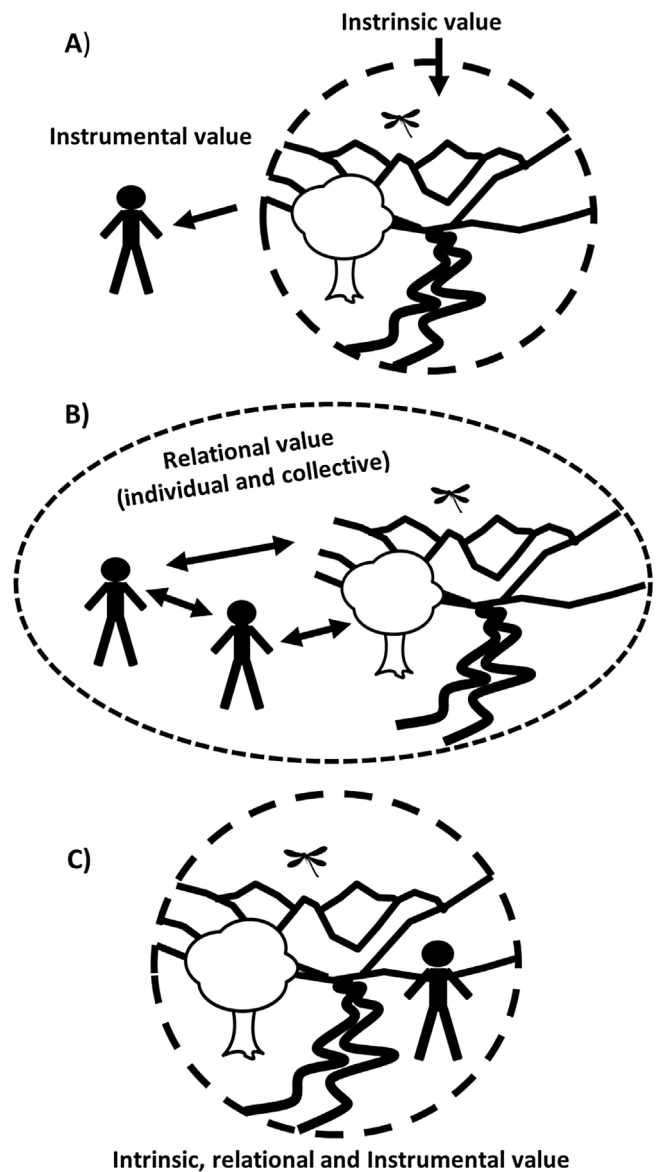


Fig. 1. Three alternate depictions of the locations of values in the natural world: A) Humans depicted as outside the intrinsic value "circle" of nature, after Chan et al., (2016). In this view humans gain instrumental value from nature, but are depicted as standing apart from nature's intrinsic value. B) Relational values, after Chan et al., (2016) "pertain to all manner of relationships between people and nature". Although the statement "caring for all lifeforms and physical forms is a moral necessity" is included under "collective relational values" it is unclear upon what this imperative is based. Intrinsic values in either humans or non-humans are not evident. C) A modern eco-evolutionary philosophical view of intrinsic and instrumental value, after, e.g., Rolston, (2012). Intrinsic, relational, and instrumental values are attributed to both human and non-human individuals, as well as eco-evolutionary processes. All such value occurs within the "circle", which in reality depicts the biosphere.

worldview: "...changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it". Yet in illustrating their concept of intrinsic value, Chan et al. (2016) depict humans as being outside and somehow separate from the "circle" of nature's intrinsic value (Fig. 1). This is precisely the wrong place to depict a "plain member and citizen" of the land community. Leopold and an ensuing generation of philosophers have argued that we as humans are to be found *within* the circle of intrinsic natural value, as is all life on Earth. We recognize that this circle is full of anthropocentric value for humans – life cannot, by definition, exist without the values provided by ecosystems. But the circle is also full of *ecocentric* value – those values which exist without reference to humans

(Kopnina, 2016; Rolston, 2012). We are not apart from, but a part of, nature. Although relational values may represent a “third class of values” (Chan et al., 2016), the discussion of how these values are to be recognized must be conducted in a such a way that more truly represents the current view of the two “existing categories”, instrumental and intrinsic values.

Chan et al. (2016) write that “*It matters little that in theory intrinsic and instrumental values might be stretched to include relational considerations if... the usual framings of instrumental and intrinsic values fail to resonate with many lay-people and decision-makers.*” Leading conservationists since Leopold have postulated that recognizing intrinsic natural value matters a great deal in fact; that it is not simply an academic exercise but a moral imperative. At the end of Leopold’s career as a forester, wildlife manager, and professor of ecology (during which he had clearly experienced relational values), he was convinced that true progress could not be made in conservation without a recognition of intrinsic value. Among the last words Leopold (1949) wrote, in the Preface to *A Sand County Almanac*, were: “*Conservation is getting nowhere because of our Abrahamic concept of land. We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong we may begin to use it with love and respect*”. Environmental philosophers have brought us much nearer to a rational for conserving nature for its’ intrinsic value, because it *right* to conserve what is objectively good (Rolston, 2012). This rational has been extended from individual sentient beings, then through all life (Callicott, 2006; Callicott, 1986), and finally through species, ecosystems and to the very borders of the biosphere itself. Thirty years later the land ethic is becoming an Earth ethic (Rolston, 2012; Callicott, 2013), a means of understanding the complex interrelationships that define the 3.5 billion years of continuous life on the only biosphere of which we know. A biosphere with its’ own history of emergent, life-generating processes (Callicott, 2013). Earth, as Rolston (2012) writes, “is value-able”, able to create value. Is it conceivable that nothing of intrinsic good existed on the biosphere before *Homo sapiens* took the stage?

3. Intrinsic value: half of an unhelpful dichotomy or objective good?

Perhaps intrinsic values then, are not simply half of an unhelpful dichotomy, destined to “*promote worldviews at odds with fair and desirable futures*”? Perhaps what is right or wrong is not subject to “*preferences, principles, and virtues associated with relationships*”? To illustrate this, consider first how we value a newborn human. Few people would argue that humans are born with a well-defined moral code – as Darwin, (1874) noted in the Descent of Man, we have the inherent *ability* to develop such a moral code as part of our human nature. But that development is subject to both nature and nurture, it continues over many years, and the outcome is uncertain. And yet, is our conception of what is right or wrong in terms of our conduct towards a human infant subject to a relational worldview? Fig. 1b from Chan et al. (2016) might be interpreted to mean that from “primarily individual” relational values, keeping an infant healthy is the right thing to do based upon a “stewardship principle/virtue”, because moral responsibility is entailed only through “human collective” relational values. One might ask whether moral responsibility is incumbent upon those individuals whom somehow do not experience collective relational values. Can one’s relational experience in some way alter the objective and intrinsic good centered upon the human infant? In simple terms, is it not more or less universally agreed that an infant’s life is good, and that he or she is to be valued first and foremost in and of itself?

Consider now Rolston’s (2012) argument for the “good” of the wings of dragonflies, which have stood the test of 300 million years’

time. They allow members of the order Odonata to maneuver with a speed and agility that is the envy of aeronautics engineers. No one argues that a dragonfly experiences the same “good” upon catching a fly on the wing as does a human when fulfilling a “good life” – but the dragonfly and its’ lineage experience “goods as such” on their trajectories into the future. They exist in the same circle of intrinsic value as does all life on Earth. These values are ecocentric; their good is objective. As such they warrant moral consideration. This good, inherent in species and in speciation, is exactly that which we wrong when we, as humans, prematurely shut down an evolutionary lineage through extinction (Rolston, 1994; Rolston, 1985). Thus, when conservationists assert that intrinsic value can motivate conservation (Doak et al., 2014; Soulé, 2013; Vucetich et al., 2015) or that extinction is morally wrong” (Cafaro & Primack, 2014), this assertion rests upon a body of collective human thought developed over two generations. Leopold (1949) wrote: “*The last word in ignorance is the man who says of an animal or plant, ‘What good is it?’ Perhaps the last word in arrogance is to ask ‘What good is it to us?’*”

The good in species is perhaps the same good that Darwin (1859) recognized when he wrote: “*...ordinary succession by generation has never been broken. . . we may look forward. . . to a secure future of great length. . . There is grandeur in this view of life. . . from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.*”. Darwin’s discovery of evolution by natural selection was due in large part to his mentor Sir Charles Lyell’s demonstration of the great antiquity of the Earth (Browne, 1995). We have now come to know that life is older than Darwin could have dreamed, and yet the succession by generation appears never to have been broken. This legacy of eco-evolutionary thought that led Leopold to give us back our plain membership in the land community also gives us the *interrelationships* among its citizens. Leopold’s writing is infused with relational values – a duck for supper (“*Red legs kicking*”) or deer backstraps (“*Song of the Gavilan*”) were valuable to him, but perhaps less so than the call of the western grebe (“*Clandeboye*”) or the annual return of sandhill cranes (“*Marshland elegy*”). Yet Leopold was searching for something much greater than *our* relationship with nature – in the end what he found were values that exist *among individuals and collectives, both human and non-human*. Interpreting this worldview as “feeling sterile or dismissively quaint” (Chan et al., 2016) is to give short shrift to a collective human endeavor that has developed in response to perhaps the greatest threat that the continual succession of life on the biosphere has ever faced.

Of course, as Chan et al. (2016) note, one need not hold this Western eco-evolutionary worldview to appreciate and care for nature. An Earth ethic, by placing us as citizens of the land community, puts us back in our place, one that myriad human cultures have appreciated. The book of Genesis tells us that “God looked upon his work and saw that it was good”. The Oglala Lakota Black Elk, writing through Neihardt (1932) tells us “*It is the story of all life that is holy and is good to tell, and of us two-leggeds sharing in it with the four-leggeds and the wings of the air and all green things; for these are children of one mother and their father is one spirit*”. In recognizing ecocentric value, philosophers have in no way discredited these worldviews. Rolston writes: “*Managing a landscape that has reared up such a spectacle of life becomes a moral responsibility. The ancient Hebrews had their promised land. . . peoples everywhere ought to be rooted in whatever the landscapes of their residence*”

To be sure, the difficult short-term tradeoffs between nature conservation and human well-being require creative approaches including relational value theory. But neither a land ethic nor an Earth ethic dictates that we ought to feed dragonflies while starving children. We will face difficult decisions that will often be decided by instrumental or relational valuation, but that does not mean we need cast off the foundation of intrinsic value. The difficult decision for a nation to go to war, for example, does not mean we dimin-

ish the moral value of human life. Just as nations have strived to avoid armed conflict, let us hope that we humans, by recognizing nature's intrinsic value, can strive to avoid harming the biosphere. The development of such an ethic is expected to be neither fast nor universal – but it is regarded by many as being essential. The conveyance of our moral responsibility towards the biosphere need not be expressed to the *exclusion* of human well-being; but a “good life” for humankind can only exist within a future that is secured by a sustainable biosphere. How good a life would it be in an impoverished biosphere anyway?

Recognizing human relational values may indeed help to develop “genuine inclusion of diverse groups in environmental stewardship” (Chan et al., 2016). A moral concern for our own good, however, ought not to substitute for a genuine moral concern for nature's own good. We as humans have the uniqueness of being the moral species – an outcome, as Darwin realized, of our long and unbroken descent from life's humble beginnings. We, the late-coming “members and citizens” of the biosphere, have evolved the ability to *recognize* the good of our fellow species. But this in no way implies that we have *created* this good. Recognizing intrinsic good does, however, encumber upon us a duty to uphold it. In striving to broaden conservation to achieve a truly sustainable biosphere, conservationists ought to lead the way in helping humankind to recognize the true value of the biodiversity we wish to conserve.

4. Planet earth: an end-in-itself

Solving the environmental problems that threaten the biosphere is going to require truly new ways of thinking; these will need to include new economic models (Spash, 2015), broader philosophical and scientific thinking (Callicott 2013; Steffen et al., 2015), and ecocentric ways of teaching and learning (Shoreman-Ouimet & Kopnina, 2016). All solutions will, de facto, account for some relational and instrumental (i.e., anthropocentric) values. Depicting intrinsic natural value as somehow isolated from anthropocentric value, however, does a disservice to two generations of philosophers who have struggled to reconcile old and new worldviews into a coherent understanding of our moral obligations to the biosphere. The upshot of these efforts is not that a continued systematic extension of values to lower levels of organization leads to a breakdown of the Kantian argument of values assigned to ends-in-themselves (Muraca, 2011). Rather, we find that the recognition of life's continuous procession breaks down the notion of ends-in-themselves as we go *up* in organization – as we leave the biosphere by spaceship and look back upon the third stone from the sun, the one with the living, breathing, crust that has, over 3.5 billion years, self-organized its' own life support system (Callicott, 2013). In terms of life as we know it, the biosphere is the only end-in-itself. Earth, as Rolston (2012) points out, is the only biosphere of which we are ever likely to be aware. He concludes: “*Maybe we can convince ourselves that we socially construct ‘wilderness’ and have differing worldviews about ‘nature’.* True, we have earth-views: a global village, Gaia, God's creation. Still, looking at those photographs from space, it seems incredible that we socially construct the planet Earth. Earth is the source of value, and therefore value-able, able to produce value. This generativity is the most fundamental meaning of the word “nature”, “to give birth. . . . We are searching for an ethics adequate to respect life on this Earth, an Earth ethics”. This sounds neither dismissive nor quaint to me. In this eco-evolutionary Earth-ethic worldview, humans co-exist with all life *within* the sphere of intrinsic value, our “good life” fulfilled by relational and instrumental values, but made possible

only through the good inherent in nature. Perhaps our only true hope for the future lies in recognizing this?

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