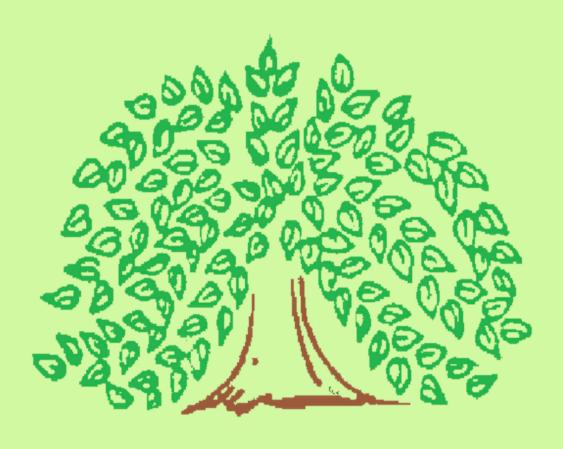
The Values of Nature

by

Clive L. Spash, Tone Smith



Institute for Multi-Level Governance & Development Department of Socio-Economics Vienna University of Economics and Business



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Abstract

The values of Nature are today ever more contested in attempts to reduce them to a narrow economics calculus and financial metrics. The crisis of modernity is evident is that the concept of Nature itself has been subject to post-modern deconstruction as archaic Romanticism while simultaneously being made into a modernist capital form by economists, bankers and financiers. In this paper we start by defining the meaning of Nature before moving to its values, the two being inseparable. Nature is seen as combining three aspect: (i) being 'other' than human, (ii) a biophysical structure and (iii) a quality which humans commonly and intuitively reference but struggle to specify. When turning to the values of Nature we describe the three major meta-ethical systems of Western philosophy—utilitarianism, deontology and virtue ethics. The contestation especially between utilitarian and rights-based approaches is explored. The role of intrinsic value in these systems is outlined. Modern mainstream economic valuation is then placed in context of the forgoing discussion and critically reviewed as a misguided but hegemonic approach to valuing Nature. The terrain of debate is laid out, briefly covering recent developments of rights to Nature and Nature's contribution to people. That Nature cannot be dismissed as a concept (something attempted by some post-modernists and strong constructionists), but remains importantly contested in terms of its values, is central to understanding the on-going social-ecological conflicts created by

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1. Introduction

The differential values of Nature become evident in the divisions between three positions: (i) respecting and leaving room for autonomous Nature (e.g. wilderness, rewilding, flourishing); (ii) using, but living in symbiotic relationships with, natural processes through traditional management (e.g. aboriginal fire ecology, or forms of organic agriculture and permaculture); and (iii) attempted domination over Nature in modernity via invasive technologies. The first and third positions can be seen as opposite extremes, where Nature is either dominant over or dominated by humans. The middle ground of the second position confronts rather than dismisses the tension between Nature and culture, human and non-human values. These three positions summarise society-Nature relations and the surrounding debates. They encapsulate something of the ongoing conflicts over the concept and values of Nature, and as such aid reflection on how we understand Nature.

The first position may be seen as looking back to hunter-gatherer societies, a time before widespread human population expansion, and no or low impact land-use change. Here, Nature as provider is associated with lifestyles of sufficiency. Such ideas cross-over into the second position, as reflected in regarding indigenous cultures as being closer to Nature and natural processes. Similarly, the Romantic rural idyll is an idealised picture of humans living in harmony with Nature. Strong positions on value in Nature may be involved and in more recent times have been associated with deep ecology, and, often very loosely defined, concepts of 'intrinsic value' in non-human entities. Ideas of living from and within Nature, meetings needs, sufficiency and harmonious living are evident in modern environmental movements, such as degrowth.

Counters to the idea of benevolent Nature as provider emphasise that life can be hard and Nature cruel. This appears as justification for increasing human management of natural processes (the third position). The struggle of 'man' against Nature is then employed to justify taming or eradicating wild animals, controlling the wilderness and making 'wastelands' productive. Such arguments have been cited by feminist literature as the imposition of a patriarchal social order.

Thus, the domination of Nature as female is connected to the exploitation and suppression of the feminine and women (Merchant 1980; Seager 1993).

A somewhat different reaction against appeals to Nature, and naturalness, warns of the naturalisation of human social norms, practices and behaviours. More specifically, a range of social structures and mechanisms are seen as having been naturalised—elitists class relations, patriarchy, sexual oppression, heterosexuality, ethnic/racial discrimination, eating meat. Thus, imposed norms of a dominant social group may be legitimised as natural in a form of social Darwinism. Reaction against this may include criticising the imperialist imposition of concepts and value systems. An explicitly subjective and cultural basis for values then appears as an alternative, where claims to objectivity are dismissed, and may be replaced by conventionalism (i.e. values are merely social conventions), cultural relativism of knowledge and plural perspectives as equally valid.

This counter to naturalisation is often presumed to be politically progressive on the assumption that it is politically tolerant. However, the move to cultural determination has also led to social constructionist arguments for the dissolution of Nature (Pollini 2013). These fail to account for the presence of Nature as a concept across time and space in human society and dismiss out-of-hand non-human values. Opening the door to the legitimisation of all positions as equally valid undermines knowledge claims and undermines the ability to determine what (if anything) is wrong with modernity. As a result, the currently hegemonic modernist position of domination over Nature can actually gain support from this post-modernist critique of Nature. As noted, this goes to the opposite extreme from the first position. It proposes an anti non-human approach, and is typically allied with technological optimism, supporting economic growth as human progress, relying on anthropocentric, consequentialist arguments and utilitarian values.

All three positions concern how Nature should be conceptualised, humans regard themselves, moral actions should be conducted and value conflicts addressed. Modernist human centred value positions envision man, or rather (patriarchal) men, as in control of everything, with the ability to choose what is to be valued and what not. Post-modernists similarly place humans at the centre by

dissolving Nature into the human and making it a social construct. Here Nature, if accepted to exist at all, is only a hybrid, an artefact, of human making. The zeitgeist phrase of the early 21st Century became 'we are living in the Anthropocene', a new geological era. This conflates global human impact with control while engaging in a Promethean discourse (Baskin 2015). Humans are described as both limited, facing catastrophe, and unlimited in their potentiality, i.e. the ability to make the world anew using geoengineering, genetic modification and the latest computing and communications technologies. The contrasting perspective is that modern human society has lost some basic understanding of the values of Nature that go beyond functionally fulfilling humans desires. In this view, humanity is out of control and subject to ultimate domination by the very structures it claims to have made irrelevant.

The aim here is to explore the underlying values behind these positions. We start by clarifying what is understood by the concept 'Nature', and introducing the major value theories in Western philosophy (i.e. rights, utility and virtues). On this basis we explore the moral debate over how humans should value non-human reality and the entities of which it is constituted. Ethics and morality are taken as synonymous, and as rational means of guiding action. This refers to right/wrong/permissible behaviour with regard to basic values and a common concern across ethical theories for the alleviation of suffering and promotion of well-being (Pojman 1989). When considering the values of Nature, core concerns arise as to moral standing and considerability of non-humans, subjective vs objective values, plural values and incommensurability. In the penultimate section, we turn to the hegemonic policy discourse on environmental values under price-making market systems and neoliberalism. This involves the on-going struggle to counter, transform and move beyond the reduction of all values of Nature to a single metric, namely money.

2. Conceptualising Nature and Value

What is Nature?

Most fundamentally we must ask what is understood by the concept 'Nature', not least because of a post-modernist trend in denial of even its existence (Pollini 2013). Nature is generally taken as 'other' than human. However, humans are simultaneously part of Nature, not least as physical, chemical and biological entities. Their interaction and impact on the natural world around them is self-evident. Confusion then arises as to what the concept means. Defining Nature also requires clarifying different uses of the term (see Soper 1995 especially Chapter 5).

As an applied philosophical concept Nature stands in contrast to human (e.g. society, culture, artefact). It represents a means of understanding the ways in which humans and their activities are distinct. That something is 'distinct from' other entities should not be confused with being 'separate from' other things. For example, your hand is distinct from the rest of your body but connected to (not separate from) your body of which it is a part. Clearly, humans are part of a greater whole and part of Nature, but remain distinct entities. Much confusion results from equating the terms 'separate' and 'distinct' and treating them as synonymous. The values of Nature are then about recognition of similarity and difference involving debates in environmental ethics over human-Nature relations and the status of non-humans.

A second use of the term Nature is ontological and concerns the fundamental aspects of reality that humans live within, that is the natural structures to which all are subject, metaphorically referred to as the laws of Nature. Science has enabled humanity to harness Nature's causal powers while remaining subject to its law-like conditions and constraints. A confusion here is to equate advances in human understanding of the structure and functioning of Nature with ability to determine and dominate everything, with the ultimate aim of creating reality in man's image. While humans impact on the bio-physical world, which is why there is an ecological crisis, they do not determine the structure, mechanisms and causal powers of Nature. Contra some commentators' opinions, early pioneers of modern scientific approaches, such as Francis Bacon, understood that

Nature to be commanded must be obeyed (Book I Aphorism III *Novum Organum* 1620), meaning humans do not determine the rules of the game but have to learn them and play by the rules as set down by Nature. That there are real structures outside human control is exactly why ignoring biophysical limits results in ecosystems collapse, species going extinct, humans dying from pollutants and so on. Values here take the form of absolutes with associated concepts of thresholds, constraints and tipping points.

A third meaning of Nature is that found in policy discussions, public debates and lay discourses. Here Nature is a quality of the otherness of the non-human. This can be seen as a dialectical concept with the human on one end and the natural on the other. In this context humans experience the outcome of their interactions and the changes this involves. What constitutes the 'natural' is judged by the quality of the environment, the extent of biodiversity and the proximity of what is produced to its non-human state, e.g. regarding a wooden chair as more natural than a metal one. Nature is then commonly regarded as degraded through human actions, as empirically observed in events, e.g. the spread of domesticated animals, contamination of soil, air and water, manipulation of forests and extent of urbanisation. Here human intervention and management has qualitative impacts with aesthetic consequences, and creates forms of Nature that are actualised in landscapes and the occurrence, or lack, of species. This third meaning is the main preoccupation of policy discourses, conservation, environmental activism, Green politics and popular debate. Despite the policy relevance, there has been a lack of clarity as to how naturalness should be understood and its philosophical basis (for an informed clarification of the meaning see Deckers 2021).

Nature, the non-human other, must then be understood as combining these different elements: an object in relation to humanity as subject which is distinct but not separate; a deep structure beyond human control that sets a range of limits (which humans ignore at their peril); and the quality of actualised interactions humans have in changing—creating, destroying, manipulating—their surrounding environment and its constituent parts. How these aspects of Nature are comprehended is reflected in our formalisation and expression of values.

Environmental Values

The various categories identified entail different understandings of what is at stake in defining the values of Nature. Philosophers and ethicists are concerned with comprehending the meaning of otherness and its moral implications for humans in their relationships with non-humans. Natural sciences seek to understand the structure and mechanisms of Nature to achieve specific consequences (e.g. to overcome gravity and fly using one set of mechanisms to counter another). Ecologists are also concerned with structure and functioning, not least because modernity has entailed dramatic ecosystem decline and collapse. Environmental politics and Green movements tend to operate at the contextually changing surface layer in which pandemics come and go, nuclear power stations melt down, climate change driven wild fires devastate large regions, and corporations pollute, extract resources and destroy habitat impacting humans and non-humans alike. Preoccupation with different aspects of Nature entails recognition of different values.

That Nature is associated with different values for different people is unsurprising. As O'Neill, Holland and Light (2007) put it, humans both live *from*, *in* and *with* the environment. Living *from* Nature means most fundamentally that humans depend on functioning ecosystems and natural resources for their survival. Nature has value in being useful and is instrumental for human ends. However, humans are more than physical beings with physical needs. Humans live *in* Nature with others, both human and non-human, in specific places at specific times, and this entails values relating to a sense of place as known locations and set within a given historical and social context. We also live *with* Nature as one set of living organisms that can experience the wonder of life in a world that existed before hominids arose and is autonomous from humans (i.e. the ability of non-humans to survive and flourish without us). Interpreting these different relationships has been contentious, involving challenges to traditional anthropocentric ethics with propositions of the need for a new approach, an environmental ethics.

Ethics concerns how we decide what constitutes a good or bad action, valid principles for acting and their relationships. In Western philosophy there are three main ethical theories:

utilitarianism, deontology and virtues. The first is a specific form of consequentialism and associated with Jeremy Bentham's philosophy of judging what is best on the basis of achieving the greatest good for the greatest number of morally considerable individuals. This has been adapted by mainstream economists into preference utilitarianism, where what individuals express as being preferred is deemed a choice that is equated to an expression of value. Under systems of utilitarianism there is intrinsic value in utility (which may be equated to well-being or welfare). Typically, utility is restricted to those consequences that affect humans, which may include their concerns over others, e.g. feeling bad about animal suffering. In theory, the consequences which affect the interests of non-humans could also be directly taken into account, regardless of whether those consequences have any effect on human well-being, by extending the community of morally considerable beings to non-humans.

The second ethical system is derived from the philosophy of Immanuel Kant and regards an individual undertaking the right action as good in itself, so that conformity to principles of right action is intrinsically valuable. Deontology is typically associated with obligations to act in certain ways and rights-based approaches. In modernity this forms the moral basis for legal systems, although ethics are distinct from the law and operate without the need for legislation or judicial sanctions, i.e. the motivation is intrinsic to the individual. Some deontologists postulate the existence of moral absolutes, such as Kant's categorical imperative or Rawls' contractualism. Right action means a moral agent is one who, of their own volition (i.e. internal conscience), undertakes duties, fulfils obligations, follows moral codes of conduct or holds to ethical principles.

The third ethical system derives from Aristotle and resurfaced as part of the doctrines of the Roman Catholic Church in medieval Europe, but has declined since the enlightenment as the other two ethical systems became dominant. Virtue ethicists focus on being over doing. It is who you are, which character traits you express through your actions, that is valued. The right actions express virtuous character traits. The theory is based in a specific understanding of the human being and of the purpose, or greater meaning, of life. Hence, for Aristotle, virtue was fundamentally linked to

human *eudaimonia*, often interpreted as flourishing, leading a good, happy and meaningful life. Moral absolutes and objective values in claims about the purpose of human life, or what constitutes the good life for humans, tend to be controversial, but can link to an ethics emphasising the importance of care, and relations to others, as in feminist theories.

A key tension in environmental debates, explored below, is that between utilitarian and rights-based approaches. However, the focus on these theories has also been criticised as Western ethnocentrism, that neglects alternatives (e.g., indigenous knowledge). That the three major value theories are limited in their ability to address the non-human world stimulated the development of environmental ethics. Thus, during the rise of the environmental movement, Routley (2009 [1973]) argued that a new—an environmental—ethics is necessary to address the failures of modernity with respect to human-Nature relations. Industrial modernity justified modes of thought that were anthropocentric, placing humans, primarily men, above all else, either in terms of attributing to them superior rights or prioritising consequences for humans. Traditional (pre-industrial) human societies regulated their co-existence with and behaviour toward the non-human world via conventions, rituals, norms, traditions, rules and taboos. Capitalism entailed the deliberate eradication of customs in the drive to create a commodified world of exchange values (Thompson 1993). A new, environmental, ethics would therefore imply new modes of economic conduct and challenging modernity.

Social structure, unlike the structure of Nature, can be changed, even if this tends to happen slowly over generations. That means, values, customs, practices and habits can change, However, such changes do not necessarily mean improvement, e.g. the rise of capitalism or fascism. There is then ongoing social transformation and conflict.

Today, the phrase 'natural value' or 'value of Nature' is embedded in the dominant discourse of the political economy and the hegemonic economic thinking of the market place, where one thing is traded for another and everything has a price. Producing money numbers to represent ecosystems services, converting Nature into capital and generally placing ecological entities into a financial

discourse is how capitalism has addressed environmental problems. It has now become the dominant way of arguing in public policy debates even for the environmental movement itself. At the same time, empirical studies reveal that people hold plural values that conflict and values that are incommensurable. This is evident in actions such as refusals to trade, regardless of the price paid in compensation, and people risking, or sacrificing, their lives to protect places, landscapes and non-humans. The basis for such acts runs against the belief in purely anthropocentric values and in favour of an extension of moral considerability to non-human Nature.

3. Moral Considerability of Non-Humans: Utility and Rights

A key distinction made in Western value theory is between the valuing agent (for whom things are of value and whom evaluates) and the object/entity of valuation (the valuable, that which has value). This leads to some controversy over which entities are valuable in themselves (i.e. fonts of intrinsic value) as opposed to being solely valued in terms of their usefulness for achieving the ends of a valuing agent (i.e. instrumental and contributory value). A key element of dispute over the values of Nature concerns who has moral standing (i.e. counts as a moral agent) and who is morally considerable (i.e. has interests that moral agents must treat as important). The question then arises: Do only humans matter morally (anthropocentric perspective), or are there grounds for including non-human entities as moral agents or morally considerable (ecocentric perspective)? Indeed what is the basis for answering such a question and drawing equivalences? Western ethical theories then aim to identify what is valuable, those for whom value matters, grounds for attributing moral standing or considerability, and how moral agents should act as a result.

Typically, humans are regarded as the moral agents, that is those 'doing' the valuing, or the subject for whom the valuable is desirable and influences their action. If value is given by the choices of the valuing agent then it is, in this sense, subjective. An example where this proves problematic is mainstream economists' assumption that individuals give value to things they prefer and the value of those things is indicated by the strength of individual preferences. If people like pandas and not spiders then the former have value and latter do not (Spash 2008c). The valued and

the valuable are equated. Under such an approach, that valuing agents may get things wrong is inexplicable because what is preferred/chosen is by definition what is valuable/good. Accepting that valuing agents do get things wrong requires distinguishing what is valuable from what might (mistakenly) be held to have value. More generally, value may be regarded as something to be sought, e.g. seeking to live a good life or conducting the right acts. From this perspective value appears objective (i.e. constitutive of the good) and acts as a guide to moral action.

The moral standing of humans might be regarded as value inherent in humans that is outside of how humans as subjects value. What is the value of a human qua human. Your value is not given to you by other humans or their values, nor by yourself. This may be expressed as humans having intrinsic value or being inherently of value because they can produce intrinsic value (i.e. utility, righteous action, virtue). However, the question of 'what is the value of Nature?' asks us to reflect upon how values might extend beyond humans and whether 'others' might have either moral standing (e.g. inherent value), or qualify for moral considerability.

For example, wildlife conservationists have increasingly centred their concerns on entire species, the consequences of species extinction and the depletion of global biodiversity for ecosystems and ultimately the planet. There is then a distinction required between whether the health of ecosystems, or the planet (e.g. personified as Gaia), is to be taken as of value in itself, or because this would adversely affect human quality of life. Similarly, the view that extinction of species (or death of individual animals) is bad in itself, regardless of the consequences, contrast with the view that the negativity of such an outcome derives from its consequences—judged in relation to violating an ethical (e.g. deontological, utilitarian, virtue) principle. The range of possible consequences and principles to be invoked will depend upon the entities that are deemed to enter into direct moral consideration and the moral standing attributed to them.

Consider some endangered species of elephant. The extinction of each individual elephant may be held to be of moral concern, or only the extinction of the entire species, or only the impact that the loss of elephants (individually or as a whole) has on the ecosystem and its functions. Our

answer to the question tends to depend on a prior one: whether the elephants matter only insofar as their survival affects the interests of humans, or whether the elephants themselves are held to have morally considerable interests. That is, are humans the only morally considerable creatures or are non-humans (e.g. elephants) also morally considerable? The ecosystem services literature makes the implicit assumption that what matters is provision of value for human ends and nothing else. The role of elephants, or anything else, can be replaced if the value is maintained.

Norman Myers, in his book *The Sinking Ark*, argues that whether a species should be saved (i.e. scarce resources should be used to save them) depends on their relative usefulness. He rejects saving species "come what may". The issue is whose ends (amongst those with moral standing) are served by the conservation of species, and how does saving a species enhance the long-term welfare of humans (assumed to be the only entities with moral standing). This in turn implies prioritising species in order of potential for extinction. Such an approach is instrumental, consequential and anthropocentric.

If only humans are morally considerable, then the argument arises that specific species should be preserved only to the extent that a desire for this is reflected in human preferences. This has led environmental economists to argue for optimal extinction as an economically valid approach (e.g. Swanson 1994). Traditionally wildlife conservation has sought to preserve key iconic species at the expense of others, e.g. lions, tigers, elephants, rhinos, pandas. This vertebrate-centred ethics limits the morally considerable community to a small number of higher mammals. Yet, the basis for such a restricted approach is challenged by recognising the moral considerability of all those creatures who, in some meaningful sense, have the capacity to suffer.

Historically the most influential version of consequentialism has been utilitarianism. Utilitarianism is egalitarian in the sense that it considers equally the interests of all morally considerable beings affected by an action, e.g. the abilities of all beings to suffer. As Bentham (1823 [1789]: 235-236) mentioned in a footnote: "The day *may* come when the rest of the animal creation may acquire those rights which never could have been withholden from them but by the

hand of tyranny. [...] the question is not, Can they reason? nor Can they talk? but Can they suffer?" (emphasis original). However, Bentham did not pursue the matter. Indeed his own utilitarian approach aimed for the greatest good for the greatest number of humans, and so allowed the sacrifice of the individual (and their well-being) for the greater good. This approach became encapsulated in the idea that the best action is that which generates the greatest net welfare for humans. However, recognition of animal suffering later led others to campaign to prevent cruelty to animals and protect animal welfare.

Such a welfarist approach can be equated to using drugs to prevent pain rather than stopping the causes of pain and suffering. It can be seen as operative in the provision of minimal animal husbandry conditions imposed on industrial farming practices based on the grounds that animal suffering is then avoided. Such is also the logic of humane killing. This exemplifies how moral considerability is different from having moral standing (i.e. in this case animal welfare versus humans as the moral agents). Human experimentation on animals can also be justified on the basis that either they feel no pain (i.e. drugs may be used) or that the greater good is served (i.e. human's will benefit more than the animal suffers). Welfare is often equated with value as 'utility', but pinning down the meaning of such terms is far from straight forward. Hence utility can cover a variety of positives, including obtaining preference satisfaction, pleasure (hedonism) and happiness, or avoiding negatives such as frustration, pain, suffering and loss. Animal welfare as a form of utilitarian argument for avoiding negatives contrasts with recognising the ability of, and allowing for, 'others' (i.e. non-humans) to flourish and live meaningful lives in their own terms.

As already noted, mainstream economists have adopted a very specific form of utilitarian ethics where they define utility as preference satisfaction, or more precisely value is defined (objectively) as utility that requires assessing welfare of humans based on their preference satisfaction (McShane 2017). In his book *Practical Ethics* Peter Singer presents a utilitarian defence of the value of animals that evaluates consequences in terms of the extent to which they satisfy the preferences of the agents granted moral considerability. Following Bentham's suggestion, this is

defined to be all creatures with the capacity to suffer, raising the evaluative problem of assessing preference satisfaction of non-humans, and so not such a practical ethics after all. Economists have struggled to even make sense of assessing human preferences as indicators of value (Spash 2008c).

The main alternative to valuing Nature in utilitarian terms has been the Kantian deontological approach. A common example of the extension of rights is the 'abolishment' of slavery, where non-white humans were upgraded, from treatment as non-human animals with no moral considerability, to inclusion amongst those with moral standing (i.e. moral agents). Although, in practice, racial discrimination was never removed (as the Black Lives Matter movement made evident) and the slave trade has continued illegally. Crucially, under deontology, rights-bearers possess equal standing and rights apply equally. The classic problem is what to do where conflicts arise between rights. The extension of moral standing to 'others' by the environmental movement has mostly been conducted in terms of attributing animals rights, but in recent times has also appeared in more general terms.

An example is the 'Rights of Nature' that came to prominence due to national legislation giving legal and sometimes constitutional recognition to Nature as a subject with inalienable rights. Legal provisions now exist in Brazil, Bolivia, Colombia, Ecuador, India, Mexico, New Zealand, and the USA (Kauffman and Martin 2018). In particular, the struggle of indigenous communities for protection of territory became associated with making Nature a subject and giving it standing in law (i.e. supposed protection via legal sanction not ethical motivation). This is a recognition of interests that tends to relate to humans rather than non-humans. As such 'Rights of nature' appears more of a political tool rather than a moral philosophical struggle to recognise Nature's value as found in indigenous culture (Tanasescu 2015). Institutional differences arise in defining the Nature that bears rights, the rights recognised, who can speak for Nature, whether anyone is responsible for protecting Nature's rights and, if so, how. In Ecuador, such rights have been mixed with nationalist feelings underpinning a critique of neoliberalism, and aspirations for legal protection amongst indigenous communities and the decolonization of society (Espinosa 2019). However, Nature's

Rights have paradoxically also been used to promote mega-mining projects in Ecuador—claiming Nature is protected, will be restored, can be compensated—revealing their limitations under neoliberal governance and institutions (Valladares and Boelens 2019). In Brazil such rights also seem to have been ineffective; destruction of the Amazon has accelerated, rather than declined, under the Bolsonaro government.

4. Going Beyond Nature's Value Under Neoliberal Public Policy

The rise of neoliberalism has seen environmental policy become increasingly dominated by economic approaches and a discourse claiming that making the value of Nature to humans visible in monetary terms will mean it is 'taken into account', or more precisely and quite literally, the accounts of firms, banks and nations. The claim is that if Nature has value then it should be empirically measureable. Pavan Sukdev, head of a major United Nations (UN) backed project on the economics of ecosystems and biodiversity (TEEB 2010), and later president of the World Wildlife Fund, has claimed that if something cannot be measured it cannot be managed. More recently, the same logic has been pushed forwarded by *The Dasgupta Review*, which converts everything, both human and non-human, into forms of financial capital (Dasgupta 2021).

Beside the very specific form value then takes, the destruction of the environment is reduced to an information problem. An implicit claim is that demonstrating the monetary benefits will incentivise—inherently self-interested materialistic—humans to take better care of Nature, and that includes politicians and business men and women. Ecologists and conservationist have joined with economists to classify and enumerate ecosystem services that can then be 'valued'. The value of Nature becomes a matter of subjective human preference, like choosing a flavour of ice cream: if you like it then it has value and if you don't it has none. Protecting Nature then makes the leap of logic to giving Nature a price in the market place, leading to the rhetoric of 'getting the prices right'. The consequences of such market values has long been evident in capitalist modernity, where the primary aim is to commensurate and trade. Prices and monetary values are purely means of facilitating market exchange and creating opportunities for financial returns, and certainly have

nothing to do with protecting Nature. For example, biodiversity offsets are justified on the basis of an economic logic where ecosystems and species can be treated as commensurable across time and space and so traded. The result is not protection of biodiversity but rather its destruction justified by the financial value of 'development' projects (Spash 2015; Spash and Hache 2021).

Framing the value of Nature in this way employs a range of contested assumptions. First, the utilitarian ethics employed is restricted to what is useful for humans (i.e. anthropocentric). Second, the object of value (i.e. Nature) is assumed to be a clear, discrete and definable entity (like a physical commodity) and something that humans can express preferences about. Third, the market is erroneously assumed to automatically protect that which is given a price. Fourth, demonstrating Nature has a money value is meant to create political action, but there is no theory of politics in the approach nor any specification as to why this should be so. Fifth, the approach assumes there is an information deficit that can be filled by monetary values. In contrast, actors in competitive markets are engaged in a structure that rewards deliberate cost-shifting in full awareness of the destruction and harm involved.

Despite these failings, this approach to 'valuing Nature' has become a core aspect of public policy discourses on the environment. Environmental economists have expanded their categories of value along with their methods of valuation. Moving from values reflected in actual markets, designated as 'use values', they started in the 1970s hypothesising option, bequest and existence values, as some form of non-use value, but still within a preference utilitarian philosophy. Some equated existence values with 'intrinsic values' in an attempt to claim all forms of value had now been 'captured' in their 'total value' approach. While intrinsic value has several interpretations, being given value by another agent contradicts these, and its being an inherent quality of an entity, which have nothing to do with preferences. There is also no relationship between existence of an entity and the preference value claims of economists (McShane 2017).

Amongst the tools developed, the contingent valuation method (CVM) became popular and a rare source of primary data in economics. However, CVM has been dogged by controversy (e.g.

valuation studies undertaken after the Exxon Valdez oil spill in 1989), and its claim to produce monetary values, that are definitive of species and ecosystems worth, lack credibility, both in practice and theory. Concerns include: treatment of protest bid and bid exclusion, use of 'willingness to pay' rather than 'willingness to accept' compensation for damages, treating respondents holding rights-based beliefs as preference utilitarians and values simply reflecting a scale of psychological attitudes (Ryan and Spash 2011; Spash 2008a). There are wider issues in economic valuation as well, including: discounting, assuming marginal analysis is relevant, assuming reversibility, failing to account for preference construction and the role of information (Gowdy and Olsen 1994; Spash 2002). Economists using such techniques produce numbers appearing precise and objective, when they are, in fact, precisely wrong in what they claim to measure.

These issues have not dissuaded environmentalists from advocating use of the resulting numbers on the basis that money is the 'language' of policy (Smith 2017). The move has been supported by the focus on market-based instruments (so called 'solutions') under neoliberalism, that advocates rational choice which is reduced to weighing-up cost and benefits. Conventional economic cost-benefit analysis can then be employed using extended methods to appraise individuals' revealed and stated preferences. What goes unnoticed, or unremarked, is how Nature is being conceptualised as an exchangeable item that can be treated as if a commodity, i.e. made commensurable and traded. Ecosystems' functions become 'ecosystem services' and natural structure becomes 'natural capital'. Very particular forms of values are then expressed and expressible via the associated institutional arrangements. Unwittingly, under the guise of being pragmatic, the advocates of equating Nature's value to a monetary equivalent deny the existence of value pluralism and incommensurability, and downplay the role of scientific knowledge in defining key attributes of Nature (Spash 2009; 2013). Ecologists and conservation biologists have not been immune to changing their concepts and language to conform to the mainstream environmental

economic approach, and as a result have undermined their own traditional research (Spash and Aslaksen 2012).

Ecologists have long tried to understand interactions and interdependencies within natural ecosystems, including how ecosystems function, and how different species are linked together and depend upon each other as living beings in community. Like others in the web of life, humans interact with and are dependent upon other species and the functioning of ecosystems. Societies and economies are embedded in biological, chemical and physical structures upon which they are dependent. This does not mean that all human actions are determined by these structures, but they are certainly constrained by them. Properly functioning natural systems are essential to human survival and the quality of these systems is a determining factor in human well-being. That means Nature has instrumental value and there are consequences from its destruction.

However, this does not mean the concept of intrinsic value can be dismissed as irrelevant. As was noted, when introducing the three meta-ethical systems of Western philosophy, forms of intrinsic value exist as a fundamental concept in any value system and cannot be captured by being redefined as use value, as attempted in mainstream economics. Humans can be regarded as having (or creating) intrinsic value in economic theory, because this theory assumes all value derives from humans, but humans themselves do not derive their own value from this system. In other words, humans have an unexplained moral standing for mainstream economists, which is why human preferences count and those of other animals do not. While the concept of intrinsic value has often been used loosely and interpreted differently by different authors (McShane 2017; O'Neill 1992), it addresses an important understanding of what constitutes environmental values (McShane 2007). Empirical research also shows that people do actually relate to Nature in terms of intrinsic value (Butler and Acott 2007).

That there are plural values (intrinsic, instrumental, consequential) taking different forms (subjective, objective/absolute), and posing fundamental incommensurabilities, has remained a central problem for those seeking simple means of taking Nature into account, as well as those

trying to include all values in some summary form. There are then questions over the relative merits of different value articulating institutions (Vatn 2005 see Chapter 12). Considering the values of Nature reveals the inability of the typically individualised preference approaches to address the values that are expressed in group participation and deliberation (Spash 2008b). As outlined above, environmental cost-benefit analysis has become overextended and divorced from its theoretical basis. More than that, it could never address plural incommensurable values because it claims a monistic value and universal commensurability. Attempts to bring the plural values of Nature into decision-making processes then point towards inclusive, deliberative and participatory methods. While facing their own limitations and problems, these methods offer the potential for improving the democratic legitimacy of the environmental decision-making process.

Concerns over the restrictive perspectives on the values of Nature imposed in public policy have also been related to the exclusion of indigenous peoples and local communities (IPLC). IPLCs challenge the hegemonic discourse of market value and economic growth, and represent non-Western forms of non-instrumental reasoning. Along these lines, the concept of 'relational values' has recently been adopted by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) under an approach called Nature's Contribution to People (Díaz, et al. 2018). Relational values are supposed to fill a perceived gap between instrumental and intrinsic value. They have been described as building from interpersonal relations and involving reasons for loving and caring that create meaningfulness.

Neuteleers (2020) identifies four characteristics as constitutive of relational values: mutual creation, identity dependence, motivation dependence and a shared final end that is 'good in itself'. However, the idea of being good/valuable in itself would seem to be a form of intrinsic value, even though the idea was to go beyond this in some way. An important additional aspect appears to be the role of identifying with the object of value in what appears to be a self-constituting form of psychological relationship, i.e. feeling connected, feeling something is a part of yourself. However, as Neuteleers notes, the self-motivation to act in a certain way towards an object is not a

duty/obligation (i.e. deontology). Overall, there seems to be a close proximity between relational values and the Aristotelian concepts of *eudaemonism*, virtues, flourishing and the good life. At the same time, the relational values literature can be criticised for using vague and broad definitions of *eudaemonic* values, being unclear about the relationship between Nature and the good life, and between *eudaemonic* values and other values, and, finally, for risking reducing *eudaemonic* value to instrumental value. Still, even though relational values seem to suffer from vagueness, complex definitions and potentially having confusing overlaps with instrumental and intrinsic values, they are an important expression of the discontent with current polices and of the ongoing struggle to (conceptually) capture the complex relationships humans have with Nature.

5. Conclusion

Attempts to remove the concept of Nature, because it is blamed for having naturalised unethical, exploitative and discriminatory social behaviour, have been misdirected and failed to account for fundamental aspects of the concept, in terms of both biophysical structures beyond human control and what is 'other' than human in the universe. That attempts are made repeatedly, by economists and others (Dasgupta 2021; Pearce and Moran 1994; TEEB 2010; UNEP 2019), to make Nature into an economic commodity form, value it as capital and/or make it into a hybrid artefact, is an indication of the conflict existing today between (past, present and post) modernity, capital accumulating economies and the non-human world. The non-human is then to be squeezed out if it cannot be made to conform to the dominant existing anthropocentric value systems. Where then is the place for non-humans and their inter-relationships? The attempt to value nothing but that which matters for humans appears to miss out a major aspect of reality (Vetlesen 2015). That Nature has multiple values, which are not easily defined, challenges those seeking simple solutions to complex social ecological crises.

The on-going mass extinction of species, human induced climate change and the myriad of other ecological problems are hardly surprising outcomes when living in a system that treats Nature as either contributing a luxury consumer product, an optional extra in the market place, or a producer input cost, something that can be bought and paid for, a price worth paying for 'development' and profits. That the values of Nature have been central to human society, and remain so, is undeniable. That they are contested intensely today, more than ever, is a sign of their importance.

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