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Analysis

Beyond ecosystem services and nature's contributions: Is it time to leave utilitarian environmentalism behind?

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ABSTRACT

The Nature's Contributions to People (NCP) approach, developed as theoretical backdrop for the assessments of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), aims to provide a more inclusive discourse in sustainability science, while addressing some of the limitations of the ecosystem services (ES) framework. Some critical initial reactions to the NCP approach have revolved around the costs of departing from the ES concept, after its hard-won influence in science and policy. In this paper we argue that the main fault of the NCP approach is precisely the opposite. Namely, to claim to be nurturing a paradigm shift while perpetuating, under a new jargon, the most problematic tenets of the ES framework and utilitarian environmentalism in general. These include a dualistic, anthropocentric and utilitarian representation of human-nature relationships, which, we argue, are among the ultimate reasons behind the global environmental crisis. We propose a departure from the prevailing ontological conception, moral framing and legal coding of human-nature relationships. Specifically, a shift from a morality of utility to a morality of care, a reallocation of property rights, and the extension of the community of justice to non-human entities.

'If we want things to stay as they are, things will have to change'.

Don Fabrizio, in Giuseppe Tomasi di Lampedusa's *The Leopard*, 1958.

1. Introduction

The present article questions the adequacy of dominant sustainability discourses to address the environmental crisis and proposes a departure from the prevailing ontological conceptions, moral framing and legal coding of human-nature relationships. For the sake of clarity, we start by exposing the set of premises and interpretations on which our analysis is founded. Firstly, we argue that the persistent failure to reverse the current ecological crisis shows the shortcomings of using utilitarian arguments for promoting environmental protection. This approach, that we hereafter call "utilitarian environmentalism", adopts the proposition that the most effective strategy to disseminate environmental protection is to account and show the benefits human societies in general, and the economy in particular, derives from the natural

environment.

Secondly, we assume that the ultimate causes of the current global environmental crisis have to be found in core precepts that have defined the Western culture and its influence around the world, reflected in prevailing social conventions about morality, the ontology of nature, the allocation of rights (legal system), and the structure and functioning of global capitalism. Thirdly, we assume that unless those precepts are questioned and transformed, social and economic forces underpinning global environmental degradation will remain in place. Below we elaborate on the proposition that it is time to question not only the effectiveness of utilitarian environmentalism, but also its moral and philosophical foundations. We think that a utilitarian approach for the promotion of environmental protection takes the attention away from the need to understand the ultimate causes of environmental degradation, deeply rooted in culture.

During the past three decades, sustainability scientists and ecological economists have devoted considerable efforts to show that environmental conservation pays off to human societies. The notion of

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ecosystem services (ES) has been instrumental to this endeavor by providing a common framework for such efforts. However, parallel to its consolidation, the ES framework has been critically scrutinized by scholars and policy makers (Gómez-Baggethun and Ruiz, 2011; Jax et al., 2013; Lele et al., 2013; Barnaud and Antona, 2014; Schröter et al., 2014) and also challenged by the persistence of rampant ecosystem loss and environmental degradation (IPBES, 2019). This trend, together with the recent setback of environmental protection policies in influential countries like the U.S. and Brazil (Light and Hale, 2018; Abessa et al., 2019), shed doubts on the effectiveness of utilitarian environmentalism, in general, as a strategy to promote environmental protection in policy circles.

The concept of 'nature's contributions to people' (NCP) (Diaz et al., 2018) has emerged recently as an attempt to introduce a new set of metaphors to frame human-nature relations, aiming to overcome the limitations of the ES framework and to provide a fresh discourse for the assessments to be developed by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) (Diaz et al., 2015; Pascual et al., 2017). The objective of the present paper is to discuss the scope, limitations and implications of this proposed discursive shift, as well as to plea for moving away from utilitarian environmentalism.

The article is organized as follows. First, we examine the importance of metaphors and cognitive framing in shaping our thinking and behavior towards nature. Second, we interpret the ES framework as a cognitive frame and describe its core underlying precepts. Then, we critically scrutinize the new discursive elements introduced by the NCP approach, and discuss the extent to which the metaphors it introduces reflect continuity or change in relation to the ES framework. Lastly, we put forward some elements to re-think prevailing human-nature relationships.

2. The power of metaphors

We agree with Lakoff and Johnson' (2003) proposition that most conceptual systems are "metaphorical in nature". We interpret both the ES framework and the NCP approach as essentially a set of metaphors. Why are these metaphors so important for understanding human-nature relations? We posit that the way we name the environment determines how we perceive it and interact with it. Metaphors reflect and set our cognitive frames. Namely, they conform mental representations that determine and at the same time reflect the way we perceive and understand the world. In cognitive science, frames refer to mental structures that condition the way we think, perceive, organize and classify experiences, relate to, and make sense of them (Cornelissen and Werner, 2014). Such frames also shape how we attribute values (importance and meaning) to the world. Metaphors activate and reflect particular cognitive frames and block out others (Lakoff, 2010). Typically, metaphors are shared by a community that also share a worldview. A shift of metaphor is not a mere language twist. It implies a shift in the way we see, understand, give sense, represent and communicate the world. Namely, shifting metaphors implies a cognitive reframing (MacGill, 2018).

Metaphors play an important role in at least three domains (Höijer, 2011; Rateau et al., 2012): (i) Anchoring experience into analytical categories, (ii) Establishing causal relationships, and (iii) Conveying symbolic meaning. First, metaphors define the cognitive processes that determine what we perceive and how. This includes how things are classified and the organization of experience into pre-established categories. The classification of NCP or ES, for instance, are not mere abstract representations. They also determine what we see (and how we see it), and what we do not see, as well as what we look for, and we do not look for through a process of matching sensorial experience with abstract categories. Advocates of the ES approach see them in places where other people (using different frames) see other socio-ecological phenomena. In summary, experience is strongly mediated by our

discursive framing, as well as by the analytical categories and classification systems we adopt.

Second, social conventions (expressed in metaphors) shape mental representations inferring cause-effect relations. For instance, ES or NCP are assumed to be channels establishing relations between the condition of the natural environment and human well-being. Causal relationships reflect cognitive biases. Assumptions of causal relationships determine, among other things, how problems are perceived (including their origin), and what types of solutions are envisioned. For instance, in the interpretation of the ES framework, the degradation and loss of ecosystems is the result of either economic externalities (market failures stemming from the incapacity of agents to value and incorporate ES into decisions) or lack of information about the value of those services to society as a whole. From this perspective, solutions then tend to be associated with economic and non-economic valuation, able to support decision making processes by means of estimating and showing the economic and social value of ES.

Third, symbols establish emotional and often unconscious associations. Such associations are historical constructs and part of the social imaginary. That is, the set of common understandings, normative notions and expectations that make social life possible (Taylor, 2004). Symbolic meaning can be a powerful determinant of attitudes and behavior. The ES framework and related policy instruments (such as payments for ES), for instance, have often been associated with market relations, privatization, neoliberal environmentalism and the expansion of capitalism (Büscher, 2012). Even when such associations might not necessarily have a solid basis, the symbolic meaning of the ES framework can explain part of the opposition to it among, for instance, deep ecologists, critical theorists and environmental activists. The choice and use of metaphors is inevitable in social sciences, since any analytical development requires the adoption of a particular cognitive framing. The issue is then that the epistemic community that adopt such metaphors should be aware of the implications, not only from a conceptual point of view, but also in terms of the moral and political stands embodied in such choices.

3. Seeing nature through the lenses of ecosystem services

The concept of ecosystem services (ES) was introduced by scholars in the 1980s, aiming to stress human dependency on the natural environment (Daily, 1997; Norgaard, 2010). It is part of a long-standing tradition that tries to spread the environmental agenda by means of appealing to utilitarian motives (Kronenberg, 2015). Once a marginal notion, in a matter of three decades the ES framework has become a very influential, or even hegemonic, discourse to frame human-nature relationships in environmental science and policy (Chaudhary et al., 2015). By hegemonic discourse here we mean a body of concepts, categories, and metaphors that comes to dominate a particular field (Keller, 2005). As discussed below, such discourses are associated with a particular worldview and institutional setting, involving specific actors, resources and power relations.

Advocates of the ES framework have always insisted that instrumental arguments for environmental conservation are complementary, and not substitutes, to conservationist motives derived from the notion of the intrinsic value of nature (Costanza, 2006). However, an underlying assumption for the development of the framework was that intrinsic values (usually associated with protected areas for the conservation of biodiversity) have failed to prevent massive loss of ecosystems worldwide (Dempsey, 2016). Hence, a key argument put forward is that the maintenance of ecosystem services is crucial for the thrive of the economy (and human societies in general), and therefore such utilitarian need should constitute a bonding element for unifying diverse reasons and motivations to be concerned about ecosystems' protection (Costanza et al., 1997, 2017; TEEB, 2010). Even though the aim of the ES framework is not necessarily to translate ES to monetary flows, and its current theory and practice go far beyond monetization,

economic valuation has been extensively used as a strategy to increase societal support for the protection of ecosystems (Braat and de Groot, 2012).

Due to its emphasis on economic valuation (especially in the 1990s and 2000s, less so at present), the ES framework has also been symbolically associated with the commoditization of nature (McCauley, 2006). Despite the fact that non-monetary valuation methods have become increasingly influential in the ES literature (Schmidt et al., 2017; Gómez-Baggethun and Martín-López, 2015; Jacobs et al., 2016), a main concern surrounding the ES approach remains its emphasis on the utilitarian value of ecosystems as a strategy to promote their conservation. In fact, the ES framework relies heavily on economic metaphors, including the conception of ecosystems as stocks of natural capital providing flows of services. Assessments of ES are often structured around market-inspired categories, such as 'ES supply and demand' or 'ES cascades' that evoke commodity supply and value chains (Chen et al., 2019). These metaphors have important implications, since they reflect a specific way of conceiving and representing human-nature relations (Raymond et al., 2013).

Summarizing, the ES framework reflects a particular worldview ultimately anchored in some of the core foundations of modern Western culture. We consider the following as the most important ones of those precepts:

(i) *A clear-cut human-nature divide.* The ES framework is part of a Western tradition that separates human societies from the natural world (Glacken, 1976). In graphical representations, ES are drawn as channels connecting nature to society, and the latter two are depicted as separate categories. In this worldview, humans and non-humans are assumed as entities with differentiated characteristics and the natural world is seen as lacking agency. The separation of humans from nature became a core foundation of Western culture in the Age of the Enlightenment (Descartes, 1996) but the roots of the Cartesian worldview are often traced back to Judaeo-Christian mythology (Haila, 2000) and the Greek classical era (Aristotle, 2016). It also constitutes a core pillar of Western science, since it underpins the distinction between object and subject, without which modern science would not be possible.

(ii) *Anthropocentrism.* The society/nature division is a prerequisite for a worldview that establish hierarchical relations between humans and the natural environment. Humans are perceived not only as separated from the rest of nature, but also above it. In this moral philosophy, humans are assumed to hold entitlements to allocate property rights over the natural environment and the resources (or services) derived from it. Nature, or for that matter ES, is assumed then to be an asset that can be owned, traded and destroyed.

(iii) *A predominance of utilitarian (instrumental) values towards nature.* The worth of the natural environment (including ES) is assumed to be determined by its contribution to human well-being. Given the current importance of market mechanisms in creating wealth, the natural environment is often perceived by utilitarian environmentalists as being instrumental for economic prosperity and growth, a proposition that constitutes the foundation of the notion of the green economy (Gómez-Baggethun and Muradian, 2015; Fletcher et al., 2018; Mandle et al., 2019). The perception of the natural environment as an economic asset and a particular type of capital (natural capital) is part of a process of expansion of the market into previously non-marketed social and environmental domains that has characterized global capitalism in the 19th Century, associated to the great influence of economic liberalism ideology during this historical period (Polanyi, 2001; Gómez-Baggethun, 2015).

In the ecosystem services framework, the combination of the three above-mentioned tenets is reflected in the depiction of society-nature interaction as a stock-and-flow system, in which ecosystems are seen as a stock, from which services are derived. The role of economic valuation consists in estimating the monetary value of such flows (Rode et al., 2016) and the goal of non-monetary valuation is to estimate different types of contributions to human societies, using a variety of

variables, methods and approaches (Jacobs et al., 2020). The common element to all valuation tools of ES, both monetary and non-monetary, is to assume human societies as beneficiaries and to perceive the natural environment as a provider of benefits. Therefore, ecosystems functions gain value to the extent they serve human interest (Peterson et al., 2010; Dempsey, 2016).

4. From ecosystem services to nature's contributions to people (NCP)

4.1. Seeking a more inclusive framing for human-nature relations

IPBES was established in 2012 by member states, which currently amount to 137 countries. Its main goal is to develop assessments of the state of knowledge about biodiversity and the use people make of it. Both outside and inside IPBES there has been a "semantic debate" around the concept of ES. Outside, scholars have expressed criticisms, mainly dealing its ecological and ideological foundations (Dempsey and Robertson, 2012). Within IPBES, the debate has been expressed by the opposition of some member states (led by Bolivia) to use the terms "ecosystem services" and 'natural capital' in official documents (Borie and Hulme, 2015; Vadrot, 2014). This opposition has been underpinned by two key political concerns: (a) the fact that the word "services" reflects a utilitarian vision of the natural environment that relegates worldviews in which "care" towards nature (based upon a sense of responsibility and shared fate) plays a key role; and (b) that the ES discourse is associated by some stakeholders to the commoditization of nature, thereby triggering political concerns around the expansion of markets, neoliberal policies, or the privatization of common property resources and public goods.

IPBES' conceptual framework has been proposed as an attempt to reach a more inclusive setting for framing human-nature relations, as compared to the ES framework. A first version of IPBES' analytical proposition was available in 2014 (Diaz et al., 2015) and in 2018 a more elaborated version was presented to the academic community (Diaz et al., 2018). The latter document revolves more clearly around the notion of NCP. One of the key motivations of this framework was to increase inclusiveness. According to Diaz et al. (2018: 271), the stock-and-flow conception of human-nature relations (associated with the ES framework) tends to exclude some stakeholders, worldviews and knowledge systems. More specifically, the authors argue that ES framework might face serious limitations when trying to interpret human-nature relations by non-Western communities. These include, for example, human-nature interactions founded on social representations (cognitive frameworks) where there is not a clear-cut distinction between the social and environmental realms, between humans and non-humans, where nature has agency, or where human-nature relations are not dominated by instrumental motives. Furthermore, these interactions are often shaped and conditioned by knowledge systems that are based upon epistemic and ontological premises that are very dissimilar to Western science (Berkes, 1999). Not only the premises might be different, but also the process of knowledge generation and dissemination might differ (Löfmarck and Lidskog, 2017).

The NCP approach aims at setting a new discourse, and therefore it expects to be a benchmark in the evolution of the ES framework. Its novelty can be summarized in three main theoretical contributions:

(i) Replacing ecosystem services (ES) by nature's contributions to people (NCP). The substitution of "service" by "contribution" has primarily an inclusiveness purpose: to enable the participation of critics of ES, expecting that the advocates of ES might be also willing to accept the new concept as a slight modification of the original terminology.

(ii) NCP are divided into three broad categories: Material, non-material and regulating. Overall, the 18 identified specific categories of NCP have a high degree of overlap with established classifications of ES. The NCP classification keeps the basic categories of ES but changes the way they are grouped and named. The term "provisioning ES" is

replaced by “material NCP”. The category “cultural ecosystem services” has been basically replaced by “non-material NCP”, while the approach keeps the word regulating NCP for regulating ES. The most important implication of this classification is the elimination of the category ‘cultural ecosystem services’. While cultural aspects are incorporated into the ES framework primarily through the contested concept of ‘cultural ecosystem services’ (Kirchhoff, 2019), the NCP approach (as formulated in Diaz et al., 2018) is explicit about the need to take cultural diversity more seriously for understanding human-nature relations. It is worth noting that advocates of ES themselves have proposed to discard the term “cultural” ecosystem services, and to replace it for “non-material” ecosystem services (Small et al., 2017).

(iii) Acknowledging two different types of knowledge, which have been coined “generalizing perspective” and “context-specific perspective”. The former refers to scientific knowledge (formalized knowledge systems in the tradition of Western science), while the latter refers to indigenous and local knowledge.

The article by Diaz et al. (2018) has been already successful in stimulating a debate (Braat, 2018; de Groot et al., 2018; Masood, 2018; Peterson et al., 2018; Faith, 2018; Kenter, 2018; Maes et al., 2018). The main criticisms to the NCP approach pointed out so far are the following: (i) it does little to address the semantic problems associated with ecosystem services, since NCP is a near-synonym term to ES (Kenter, 2018); (ii) the proliferation of new terms could confuse policy makers and other stakeholders, and the approach entails the risks of plunging the ES community into “unnecessary and paralyzing debates” (de Groot et al., 2018) and undermining the environmental and biodiversity conservation agenda by means of creating a division within the academic community (Masood, 2018). Currently, there is still an ongoing debate about the extent to which ES and NCP differ and are complementary (Ellis et al., 2019; Kadykalo et al., 2019; Pires et al., 2020).

As it has been portrayed so far, the debate seems to be then a semantic one: if NCP and ES are synonyms, why then to create a new terminology? If they are not, then the academic, practitioners and policy communities that have adopted the ES jargon would have to decide whether to keep using it or to shift to a new one. We can wonder whether it is worthy to engage in such dispute about metaphors (Borie and Hulme, 2015). Our vision is that yes, metaphors do matter and it is not a superficial or distracting exercise to challenge and revise them. However, we think that devoting efforts to shift metaphors that share the same philosophical foundations is misplaced because it takes the attention away from what we consider the most critical aspects for changing our relationship with nature: the ideologies that shape prevailing human-nature relationships and determine the allocation of rights, in particular property rights and the right to hold legal personhood.

Despite our criticisms, it is worth noting that both, the ES and NCP frameworks, are genuine attempts from the academic community to promote environmental protection, and share several merits. Most importantly, both share with ecological economics the ontological conception of nature as the material foundation of the economy and human life and stress the dependency of the economic system on ecological systems (Gómez-Baggethun and de Groot, 2010). This proposition is particularly important in a context where the predominance of urban and technological lifestyles reduce our ability to perceive human dependency on ecosystems (Cox et al., 2017), and in a cultural context where such detachment has been seen by many as a signal of progress. More than 60 years ago, Schultz (1951: 725), for instance, stated that “economic development has modified in an important way and relaxed substantially the earlier iron grip of the niggardliness of Nature”, reflecting the long standing and influential Western ideology that sees independence from nature as a civilizational goal.

4.2. NCP and the “faun syndrome”: New metaphors for the same precepts

The NCP approach brings about a healthy and meaningful debate

about the way we represent human-nature relations. Our interpretation is, however, that the NCP approach shares with the ES framework a representation of human-nature relations dominated by a dualistic, anthropocentric and utilitarian worldview. The metaphor “nature’s contributions to people” represents “people” as the subject of a variety of benefits derived from their interaction with the natural environment. NCP are seen as a “flow” of benefits connecting nature with the quality of life of people, which is very much in line with the stock-and-flow representation of the ES framework. Nature is represented as an external domain (to human societies) from which those (mainly positive) flows emerge. It is revealing that the approach has chosen the metaphor “nature’s contribution to people” and not, for instance, people’s obligations towards nature.

The NCP approach explicitly aims to acknowledge different ways of knowing, in line with academic approaches that favor methodological pluralism and epistemological diversity (Goddard et al., 2019). However, in general, the approach remains Western-centric. This is not surprising since it was developed by scholars within the tradition of Western science. The description of “generalizing” and “context-specific” perspectives reflect stereotypes dividing science and other forms of knowledge. For instance, Diaz et al. (2018: 272) state that “in local and indigenous knowledge systems, the production of knowledge typically does not explicitly seek to extend or validate itself beyond specific geographical and cultural contexts”. This is evidently not true. Other knowledge systems are as all-encompassing as Western science. The fact that they are not more generalized has to do with the historical development of Western influence, rather than with the alleged aspiration of other knowledge systems to remain “local”. Western science is so influential nowadays due to a combination of its explanatory power, its association with technological inventions, and the generalized influence of Western culture worldwide. In sum, while the effort to acknowledge and incorporate knowledge systems other than Western science is laudable, the NCP approach reproduces the cognitive biases of Western academic thinking. One of those biases is to conceive Western science as intrinsically superior to other knowledge systems. The division between “generalizing” and “context-specific” knowledge systems is not an appropriate description of the diversity of forms of knowledge and implicitly position non-Western knowledge systems in a fringing (or “local”) position.

Finally, we argue that in the NCP approach more inclusiveness has been gained at the expense of rigor and internal consistency. The consensus rule of UN organizations has facilitated the consideration and integration of dissident or marginal views in relation to the mainstreamed ES discourse. Compromises may reduce conflict, legitimize decision making processes, and ensure the adoption of consensual policy recommendations by a wide set of stakeholders, but it also may become a major hindrance in the elaboration of a meaningful and internally consistent analytical proposition. An example of these internal inconsistencies are the three broad categories adopted by the new approach: material, non-material and regulating. These categories are problematic due to two reasons:

(i) This classification mixes up properties and functions as criteria for defining the categories. “Material” and “non-material” have to do with a particular property of NCP, while “regulating” refers to their function. Why to define one category in terms of functionality while the other two in terms of the degree of “materiality”? There is not a clear justification for this apparently inconsistent choice.

(ii) The degree of “materiality” of NCP is represented as a continuum property. For instance, several NCP are shown as belonging to the material and non-material categories at the same time, and the NCP “maintenance of options” is shown as belonging to the three categories at the same time. However, these three categories (material/non-material/regulating) are depicted as discrete (well differentiated one from the other). Why defining discrete categories for a continuum property? If most NCPs can be categorized as both material and non-material, why then to divide NCP into these categories?

In summary, despite being a stimulating and well-intentioned attempt to leave behind the main drawbacks of the ES framework, we claim that the notion of NCP has basically failed to create a novel and internally consistent discursive structure. The NCP approach has dared to take some steps forward, but it has not been bold enough to become a fully “new animal”. It seems then that the development of the approach was caught by the contradictions derived from the need to reconcile two opposing goals: to show continuity with the ES framework, on the one hand, and to break with it, in order to establish a new discourse, on the other. We therefore argue that the NCP approach suffers from what could be called the “faun syndrome”. The faun, a creature from Roman mythology, is a man with some goat’s features. Despite the animal appearance, it nevertheless remains human in essence. Instead of an internally consistent alternative, the NCP approach looks as a hybrid, whose features are not enough to set the basis for a new way of conceiving human-nature relations. In the following section we argue that such ground-breaking shift is indeed needed to overcome the global ecological crisis.

5. The need for re-framing human-nature relationships

Our interpretation is based on the assumption that the global expansion of the capitalist form of production and consumption has been associated with the adoption of a set of Western values that steer the way we interact with the natural environment, ultimately resulting in the current global environmental crisis. In the following paragraphs we aim to outline what we consider the three most important philosophical foundations of a destructive relationship with the natural environment: A combination of (i) society/nature divide; (ii) anthropocentrism and (iii) utilitarianism.

A distinctive feature of Western culture, as compared for example with Amerindian (Viveiros de Castro, 1992, 2018), Sami (Helander-Renvall, 2010) or traditional Yoruba (Lopes, 2019) cultural backgrounds, is a clear-cut distinction between human societies (or culture) and nature. In Western culture, sentience and agency are considered as differentiating and special features of humans, as compared to the rest of natural world. Devoiding the natural world of agency and sentience “dehumanizes” it, and therefore reduces empathy towards it (Fiske, 2009; Vaes et al., 2016). A comparison might be illustrative. According to the interpretation of Amerindian perspectivism, in most Amazonian cultures, non-human species can see themselves as humans, while they can see humans as animals. The condition of being “human” is thus relational, since it depends on the perspective of the beholder. Humanity is a point of view, and not a distinctive condition among the existing creatures. The frontier between what is human and what is not is conceived as very fluid and porous (Viveiros de Castro, 2015).

In addition, among the Araweté (Viveiros de Castro, 1992) and the Sami (Helander-Renvall, 2010), for instance, there is not an equivalent word for “nature”, and the ontological frontier between humans and some animals is blurred, e.g. humans can become some animals and vice versa. Within the Western tradition, there has been some attempts to give agency to non-human entities by means of acknowledging their capacity to influence the configuration and functioning of socio-economic systems (Dwiartam and Rosin, 2014). However, the society/nature distinction still prevails.

The society/nature divide has been exacerbated by contemporary urban life, which can induce the perception that human societies are increasingly detached from ecological processes (Miller, 2005). This perceived detachment is based upon the assumptions that (a) human beings constitute a special animal species, which does not follow the same natural rules as other species on the planet, and (b) technology and innovation enable humans to substitute ecosystem functions and processes (Soga and Gaston, 2016).

Empathy is the basis of morality, and it depends on psychological proximity. The social and self control for causing annihilation of the other or pain on the other are based on identification mechanisms and

the capacity to experience empathy (Mentovich et al., 2016; Czaps et al., 2018b). Psychological proximity is related to the perception of shared characteristics, and in particular of core characteristics that we associate with the human condition (such as agency, sentience and intelligence). This holds for both human-human and human-nature relations (Wilderemuth et al., 2017; Miralles et al., 2019). The longer the psychological distance between humans and nature, the more likely that nature is taken out from the moral community, and therefore the more likely that an exploitative and utilitarian relationship is developed.

Private property rights on natural ecosystems (including the right to clear them up) is built up on the notion that humans are not only different but also superior beings to other living entities. The same notion applied to slavery, whose justification required scientific theories and social conventions assuming racial differentiation and superiority of some races over others (Edmonson, 1976). Mbembe (2017: 179) argues that the “birth of the racial subject, and therefore of Blackness, is linked to the history of capitalism”. The “dehumanization” of the black subject, for its utilitarian appropriation, has the same underlying social and psychological mechanisms as the creation of the society/nature divide. In a speech given in 1962, Lévi-Strauss (1993) stated that a key to understand the Western man is to look at the separation between men and animals he has created. He argued that this cultural feature opened the door to an infinity of abuses, based on the self-proclaimed right to restrict the human condition to a privileged minority (initially of white European men). Structural racism and a destructive relationship with nature have the same cultural foundations. The colonial expansion of capitalism between the 16th and 19th centuries was built on two Western civilizatory pillars justified by racism and the society/nature divide: natural wealth extraction and the forced work of subjugated groups (Mbembe, 2019).

The history of slavery of indigenous populations and Africans in European colonies (and its abolition) are examples of how the prevalent ideology sets the boundaries of moral communities and consequently establish the community of justice. During the 16th century, there were theological debates about whether indigenous inhabitants of the Americas were human beings, and about whether they were naturally inferior and deserved to be subjugated (Byung, 2011). During the colonial period, slaves were part of the community of justice, but in a very constrained way. Masters had almost full sovereignty over judgment and punishment of slaves, and in the French Antilles for instance, if a slave committed a severe offense and was condemned to death, the owner received a financial compensation from the state (Marquese, 2004). Only in 1811 a planter in the British colonies, called Arthur Hodge, was for the first time tried and hanged for the murder of one of his slaves (called Prosper). This event constituted a landmark in the history of the allocation of rights between slaves and planters (Andrew, 2000). It is revealing that planters, and not the slaves, were often compensated for the abolition of slavery in the XIX century (Draper, 2013).

In the U.S., it took a long period of time after abolition for black citizens to be acknowledged by the state as equal members of the community of justice. The abolitionist and civil rights movements were social mobilizations to induce moral changes, and consequently the allocation of rights between social groups. We think that the environmental movement should have essentially the same profile: to aim to change the allocation of rights, including property rights, and the composition of the community of justice. To achieve that goal requires profound ideological changes, as it was the case of the abolitionist cause.

Adopting a utilitarian abolitionist perspective, Adam Smith argued that freeing slaves would increase productivity (Smith, 1778). His expectations however were proven wrong, at least during the aftermath of abolition in England. Nevertheless, the British abolitionist movement kept its claims about the immorality of slavery even after the decline of planters’ profits and lost of competitiveness of the West Indies as compared to the Spanish and Portuguese colonies where slavery was still legal (Anderson, 2014). This take persists among present movements

against racial violence, which (by contrast with utilitarian environmentalism) do not ground their demands on appeals to the contributions of black people to society, but on the categorical moral stance that ‘black lives matter’. Social struggles for changes in moral consciousness usually challenge power structures, including production systems and prevailing allocation of rights. We argue that the environmental movement should vindicate changes in moral consciousness. Morality and utility rarely go hand-in-hand, because morality has to do with a set of rules for controlling power, while the pursue of utility (the maximization of it), on the contrary, requires the expression of power.

Again, a revealing example about the conflict between morality and utility can be found in the history of slavery. Du Tertre (1667) reports that Dutch and English protestant planters in the Antilles in the XVII century, contrary to catholic colonists, refused to baptize their slaves, because they assumed that it was not morally right to own Christian slaves. Nonetheless, if a slave was close to die due to a disease, some planters felt the obligation to baptize the person, and at the same time to free him or her, with the risk of the slave becoming a free person if (s)he succeeded to recover from the disease. This case shows, on the one hand, the relationship between psychological proximity and the frontier of the moral community (baptism brought slaves psychologically closer to their masters, and therefore their acquisition of rights was more justified). On the other hand, it also shows the common conflict between morality and utility. The maximization of utility (trade and exploitation of enslaved work force) needed the flexibilization and adaptation of moral rules (obligation of baptism for all humans), as well as the application of such rules (obligation to baptize dying persons) implied the risk of losing economic assets (liberation of the slave). Morality is often about restraining utility, and therefore setting the limits of commodities and markets.

Anthropocentrism has been challenged within Western environmental philosophy and law (Stone, 1972; Naess, 1973, 1993; Norton, 1984; Schweitzer, 1987; Chapron et al., 2019; Leopold, 2020). These exceptions notwithstanding, dominant moral philosophy in the Western culture has considered almost exclusively human beings as moral persons for about two thousand years. Nonetheless, the criteria for identifying moral boundaries and for defining the community of justice vary significantly throughout time and across cultural backgrounds (Stumpf et al., 2016). These criteria might include the capacity to feel pain, to have sentience, intelligence or consciousness, holding interest or having the capacity to set contractual relations, among others (Baxter, 2005).

Anthropocentric moral delineations are not universal, and actually they do not characterize Amerindian cultures (Viveiros de Castro, 1992; Escobar, 2011). Forest people from the Americas do not see humans as superior or special beings, neither they are assumed to be entitled to ownership and annihilation at will of other forest entities. Humans are seen as part of a complex and delicate web relations in the forest. David Kopenawa, a Yanomami leader and shaman, states that for the Yanomami culture, the Amazon forest is full, populated, among other things, by innumerable Xapiri (forest entities, invisible most of the time), while for white people the forest is an idle space, from which minerals and other resources must be extracted (Kopenawa and Albert, 2013). For the Yanomami, humans are just one of the multiple entities that inhabit the forest, while for many white people the forest is an empty and “unproductive” space to be conquered, waiting to be exploited economically.

The observation made by Kopenawa reveals not only the anthropocentric character of capitalism expansion (tightly intertwined with the expansion of Western culture and urbanization) but also its extreme utilitarianism. Utilitarianism, as adopted in economic science, reflects a particular conception of morality, in which the pursuit of self-interest, the limitless desire for commodities, and the unlimited appropriation of capital are seen not only as rational, but also as morally right, since the maximization of individual utility is conceived and the guiding principle of social organization, as a source of social order (Abercrombie et al., 1980). From this conception of morality, self-restraint makes sense only if it pays off later on. An example of the utilitarian morality can be

found in the following quote from the treaty written by André João Antonil, a Jesuit priest, published by the first time in Lisbon in 1711 and that contained recommendations about how to treat the slaves in Brazil. He recommended never “...to hit with a stick on the slaves, because in rage the blows are not measured and can hurt the head of a useful slave, that is worth a lot of money, and loss him...” (Antonil, 2011: 98). Here self-restraint is seen then as the wise expression of self-interest. The same type of argument is put forward by utilitarian environmentalism: self-restraint of forces for environmental destruction are seen as the expression of wise self-interest.

6. Overcoming dual, anthropocentric and utilitarian conceptions of nature

A key issue is to understand what are the core social conventions that shape our relationship with nature, and how we can change them (Muradian and Pascual, 2018). As far as human-nature relations are concerned, we have a big deal to learn, for instance, from forest cultures that have been able to protect tropical forests for long periods of time, and still do so (Danowski and Viveiros de Castro, 2015; Escobar, 2016). To foster the required learning and transformation we could make use of what some authors have called “re-framing”: making diverse cognitive frameworks explicit and facilitating the interaction between them (Schwab et al., 2017; Kaaronen, 2018). Re-framing is essentially about exchange and learning. We argue that an inter-cultural exchange and learning is especially needed in relation to three key concerns: a morality of care towards the environment; the allocation of property rights and the participation of nature in the community of justice. In the following paragraphs we briefly address these issues.

The cognitive and technical capacities of the human species confer humans a unique power to transform the natural environment. The restraint of power is a key component of any ethical system. There would be no evolution towards a more harmonious relationship with nature without a larger self-restraint for exerting power against the natural environment (Franzier, 1989). As it has been argued before, empathy is one of the most powerful mechanisms for self-restraint (Brown et al., 2019). However, utilitarian calculations are not based on empathy and, on the contrary, utilitarian morality tends to be associated with less of it (Begue and Laine, 2016).

Questioning the society/nature divide might be a necessary step for developing the sense of moral obligation towards other living beings and the territory, based on moral grounds (Vining, 2003). Creating psychological proximity with non-human beings might facilitate their incorporation in the moral community (Oliveira, 2017). In order to solve human-nature conflicts, we would need to develop social-psychological interventions aiming to induce fundamental changes in belief and feelings, similar to the methods that have been applied to deal with intergroup reconciliation based on the development of empathy (Čehajić-Clancy et al., 2016).

Time may be ripe for contemporary environmentalism to move from a morality founded on utility to a morality founded on care (West et al., 2018). While self-interest is the core principle shaping utilitarian relations, a relationship mode based on care has responsibility and the notion of a shared fate as the main driving forces. The sense of responsibility is founded on an extended interest, from the individual to the subject of care. Care and responsibility require a certain degree of sacrifice for the sake of the well-being of the other party in the relationship. From a utilitarian perspective, however, investments in the well-being of the other only makes sense when it pays off to the investor. Care and utility are therefore very different principles for steering relationships (Whyte and Cuomo, 2017).

Social conventions determining the allocation of property rights (property regimes) can harness the capacity of individuals to exert power, including power to destroy the natural environment and other species (Czap et al., 2018a). Piketty (2019) has conducted a comprehensive historical review about the relationship between ideology

(prevailing social conventions) and social inequality, comparing different societies and historical periods. He shows how property regimes (conventions about the allocation of property rights between social groups) have been key in determining the distribution of wealth and income in human societies across history and cultural groups. An important contribution of Piketty is to make a detailed analysis on how such conventions have actually changed, or have remained unchallenged during long periods of time. We could conduct such type of historical and cultural analysis to the relationship between property regimes and human-nature relations. Ownership rights are a key element determining the relationship mode between human societies and the natural environment (Ojanen et al., 2017). The legal system of any given period of time and society is based on a pre-defined allocation of property rights, which determines, among others, what is legitimate public purpose for land or ecosystems (justifying appropriation by the state) and what constitutes just compensation to private agents, legitimizing private entitlements on them (Jasanoff, 2012).

However, utilitarian approaches towards sustainability tend to take property regimes of any given time for granted, and therefore focus on ways to change relative values within such regimes (to achieve sustainability goals), instead of transforming them. It is likely that in the future private ownership of valuable ecosystems will be considered as immoral as most people nowadays consider private ownership of humans. If non-human entities start to matter morally, then we could not treat them as private property.

Buchan (2001) recounts how in the XVIII century British colonists considered the lack of well-defined private property rights among original inhabitants of Australia as a proof of how uncivilized there were. Indigenous-managed lands are nowadays effective repositories of global biodiversity (Schuster et al., 2019; Tran et al., 2020). Likely this outcome was possible precisely because private ownership was excluded from these territories. Indigenous territories and protected areas alone will not be able to stop massive biodiversity loss (Tran et al., 2020). However, these territories provide real examples on how property regimes, among other cultural factors, shape human-nature relations.

In contemporary capitalist societies, the most important mechanism for restraining power is the legal system. However, nature and non-human entities are normally out of the community of justice, and therefore do not hold rights. Environmental justice is usually a matter of struggles between social groups, and environmental justice movements tend to be mainly concerned with people and human communities (Baxter, 2005; Schlosberg, 2007). We think however that more harmonious human-nature relations would need a shift from the perception of nature as a subject of human use to a right-bearing entity (Laastad, 2019). Furthermore, a shift from a morality based on utility to a morality based on care and duty towards others has to be reflected in a re-allocation of rights not only between humans and non-humans, but also between current and future generations (Howarth and Norgaard, 1992).

Modern parliamentary and judicial systems can give rights to any kind of entity, if they find reasons and social support to do so. Examples include long held rights to non-living entities like corporations, trade unions or states (Gordon, 2018; Chapron et al., 2019). During the past two decades, countries like Ecuador, Bolivia, Colombia, India and New Zealand have engaged in legal innovations aiming to incorporate non-human entities and the natural environment in the community of justice, by means of giving them legal personhood (Helander-Renvall, 2010; Cano, 2018; Alley, 2019; Macpherson and J., 2019). Nature's rights should be enacted jointly with the appointment of guardians or representatives able to stand in court on Nature's behalf (Talbot-Jones and Bennett, 2019).

7. Conclusion

In our urban and technological era, where a growing share of humanity lives spatially and cognitively detached from core ecological

processes, the ES framework has provided a timely reminder of the multiple ways in which humans depend on nature. Despite its merits, however, it seems that the framework has so far failed to induce transformational changes in the way humans relate to nature. We believe that, despite its claims to nurture a discursive shift, the NCP approach is unlikely to induce the necessary steps forward. Both the ES and the NCP frameworks ultimately share core tenets of the Western culture that, we have argued, lay at the root of the current global environmental crisis. We claim that in order to induce transformative change in human-nature relations we need a shift from a morality of utility to a morality of care, a reallocation of property rights, and the extension of the community of justice to non-human entities. These changes are not likely to happen in the short term, and they would require a big deal of humility and learning from other cultures and knowledge systems by both academicians and the general public, as well as social struggles, particularly from those whose livelihoods are seriously threatened by global capitalist forces.

The fact that the required changes are unlikely to happen in the short term should not be a reason for not pursuing them. Previous struggles for extending the community of justice (e.g. from white men to black people, indigenous peoples, or women) were long dismissed as utopian and required prolonged time horizons and continued mobilization to be realized. Aware that our propositions may be dismissed today as utopian, we hope one day we will look back at present exploitative human-nature relationships with the same sense of disgust most people feel today about the brutal history of slavery and colonization.

Declaration of Competing Interest

We declare that we do not have known competing financial interests or personal relationships that could have appeared to influence the work reported in the paper.

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