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Properties and relations: a post-anthropocentric reading[1]

Propiedades y relaciones: una lectura post-antropocéntrica

Propriedades e relações: uma leitura pós-antropocêntrica

Joaquín Fernández-Mateo [a]
Madrid, Espanha
[a] Rey Juan Carlos University

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Abstract

This article explores the philosophical postulates that are generating a whole series of transformations at the ethical, legal and political levels. In order to trace back the philosophical conditions of possibility of such change, it will study the scope of the theory of relations and the theory of properties. After its exhaustive analysis, it concludes that the theory of relations has a greater explanatory and operational scope than the theory of properties. After exploring the moral justification of sensocentrist and biocentrist arguments, it invites to the cultivation of non-destructive relations with any entity, strengthening a relational ontology as a way out of the current ecological crisis.

Keywords: Animal ethics. Environmental ethics. Anthropocentrism. Non-humans.

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[a] Profesor Contratado Doctor. Departamento de Artes e Humanidades, Área de Filosofía, Universidad Rey Juan Carlos, Aranjuez, Madrid. email: joaquin.fernandez@urjc.es

Resumo

Este artículo se pregunta por los postulados filosóficos que están generando toda una serie de transformaciones a nivel ético, jurídico y político. Para remontarse a las condiciones filosóficas de posibilidad de dicho cambio, estudiará el alcance de la teoría de relaciones y la teoría de propiedades. Después de su análisis exhaustivo, concluye que la teoría de relaciones tiene un mayor alcance explicativo y operativo que la teoría de propiedades. Tras explorar la justificación moral de los argumentos sensocentristas y biocentristas, invita al cultivo de relaciones no destructivas con cualquier entidad, fortaleciendo una ontología de relaciones como salida a la actual crisis ecológica.

Palabras clave: *Ética animal. Ética ambiental. Antropocentrismo. No humanos.*

Resumo

Este artigo indaga sobre os postulados filosóficos que estão gerando toda uma série de transformações nos níveis ético, jurídico e político. A fim de rastrear as condições filosóficas de possibilidade de tal mudança, ele estudará o escopo da teoria das relações e da teoria das propriedades. Após sua análise exaustiva, ele conclui que a teoria das relações tem um escopo explicativo e operacional maior do que a teoria das propriedades. Depois de explorar a justificativa moral dos argumentos sensocentristas e biocentristas, ele pede o cultivo de relações não destrutivas com qualquer entidade, fortalecendo uma ontologia relacional como uma saída para a atual crise ecológica.

Palavras-chave: *Ética animal. Ética ambiental. Antropocentrismo. Não humanos.*

Sentient beings and living systems

The relationship of human beings with their environment is changing. Human beings are beginning to understand that they cannot place themselves above the web of life. The extension of normative criteria to new subjects or entities has consequences for law: subjective law grants legal action for the defense of non-human entities. Decision-making is increasingly determined by the emergence of new subjects of law. Law for nonhumans is beginning to materialize in non-sentient entities such as rivers (O'Donnell, & Talbot-Jones, 2018), trees (Davies, 2015) or landscapes (Makhzoumi, Egoz, & Pungetti, 2011). The Mar Menor, Europe's largest coastal Mediterranean lagoon, has been declared the first European ecosystem with legal personality: "the public authorities, economic activity and individuals must moderate their actions taking into account the subjective rights of the Mar Menor and its basin" (Ortuño & Giménez, 2022, p. 31).

For Cochrane (2018, p. 30), there must be a shift in the paradigm of human rights "and we should shift to the era of sentient rights". In fact, we find the first recognition for cetaceans, considered as non-human persons in India (Bertoni & Beisel, 2013), habeas corpus petitions on behalf of certain animals to request the courts to recognize them as legal persons (Montes, 2022) or the recognition of non-human animals as living beings endowed with sentience or sentient beings in the reform of the Spanish civil code (Navarro, 2022). This type of recognition is becoming increasingly important, especially after the "Cambridge Declaration on Consciousness" written by a group of scientists in 2012[1] (Low et al., 2012). Animals not only receive stimuli from the environment but also become aware of what is happening, so sentience is a condition for having interests that can be interpreted by human representatives. "The equal worth and rights of all sentient creatures" would result in the establishment and maintenance "of democratic institutions comprised of dedicated animal representatives" (Cochrane, 2018, p. 43).

All these changes generate new responsibilities derived from the recognition of sentient beings or living systems. In addition to the worn-out use of the concept of "sustainability", terms such as biodiversity, ecosystems or sentient entities are becoming more and more recurrent, and new disciplines such as animal bioethics are appearing (Yáñez, 2020). This implies a change in human behavior to reduce impacts on living systems, as well as new legislation as a consequence of the emergence of new biological rights. Granting rights to ecosystems or sentient beings gives rise to new accountability in the case of harm to non-human entities.

The change in the legal status of sentient entities and living systems implies an economic, social and cultural structural change. Anthropocentrism has drawn a dividing line between subjects with moral status and entities without it [2]. However, the new post-anthropocentric approach implies the emergence of new subjects that have traditionally been considered external to a moral community.

[1] "The absence of a neocortex does not appear to preclude an organism from experiencing affective states. Convergent evidence indicates that non-human animals have the neuroanatomical, neurochemical, and neurophysiological substrates of conscious states along with the capacity to exhibit intentional behaviors. Consequently, the weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates" (Low et al., 2012)

[2] Some authors have argued that the concept of moral status should be abandoned because it is confusing and distorts our understanding of how we should behave towards different individuals in different circumstances. HORTA, Oscar. Why the concept of moral status should be abandoned. *Ethical theory and moral practice*, 2017a, vol. 20, no 4, pp. 899-910.

Their progressive integration into an enlarged moral community will impose ethical limits on our actions, generating new moral dilemmas and future prohibitions.

On the basis of these approaches, this paper asks about the philosophical conditions of the possibility of such ethical, legal and political changes. In order to understand the philosophical origin of the new practices and procedures, it is necessary to address the different arguments that have given rise to positions such as sensocentrism or biocentrism, positions that question the traditional anthropocentric dualism. Therefore, since the emergence of new legal figures for non-human entities is increasingly relevant, this study will work on their ontological and epistemological foundations. For this purpose, a distinction between the properties approach P and the relations approach R will be elaborated. The properties ontology appears as a necessary, but not sufficient, condition for the development of an extended moral community in the new post-anthropocentric era.[3]. The following table will allow the reader to follow the arguments more clearly:

Table 1 – Concepts and symbols

Symbol	Meaning
P	Properties approach
P(S)	Sentient entities
P (¬S)	Natural entities without sentience like rivers, ecosystems or forest.
C	Interspecies community
C+	Interspecies and biospheric community
R	Relations approach
C+R	Relational ontology that seeks balance with any entity

Source: author (2023).

Sensocentrism and interspecies community

Animal ethics has rejected as unjustified the arguments in defense of speciesism (Williams, 2009), the use of animals (Frey, 2009) or the view that the interests of humans should be considered more relevant than the interests of other animals (Kagan, 2016.). All these arguments are based on an arbitrariness that causes unwanted discrimination in those who suffer it. Bruers (2021, p. 963) defines unwanted arbitrariness "As making a choice without following a rule, whereby the consequences of that choice cannot be consistently wanted by at least one person". How can we avoid arbitrariness?

> Arbitrariness is avoided by the justifying rule and by the idea that if you may follow that rule in a specific situation, then everyone may follow that rule in all possible situations. If you would not

[3] The shift to a post-anthropocentric paradigm would be necessary because, under an anthropocentric scheme, "the centrality of the human implies a sense of separation and individuation of the human from the rest of beings. This epistemological approach has not only sociopolitical and ethical consequences, in the abuse that has been inflicted upon others non-human, but also geological implications" [...] "We need to acknowledge that this species-driven emphasis on the human as an autonomous entity stands on the psychotic speciesist perception, and on the related individual disconnect, of the human body as absolutely separated from planet Earth" (Ferrando, 2020, p. 103; p. 105)

> accept that everyone follows your chosen rule, then you are not allowed to make that choice and follow that rule either (Bruers, 2021, p. 964).

By following this rule —which everyone should follow in any situation systematically— we avoid unwanted discrimination. As a result, the interests of any member of a moral community are worth exactly the same. No-one would want to live outside the boundaries of that community; that would imply being treated as a tool or a thing. The members of a moral community are not objects but subjects of rights.

Animal ethics offer rational criteria to justify the moral consideration of animals and their right to be included in an extended moral community, that is, an interspecies community: C. This inclusion would be made possible by the possession of a property. What is the property that makes it possible to recognize the members of C?

Humans and other animals have the capacity to have experiences, to feel pain and pleasure. On the other hand, plants or computers "do not have subjective preferences about the way they are treated; they cannot even experience their treatment. Plants merely have unconscious behavioral dispositions" (Bruers, 2021, p. 968). Animals are sentient entities "because their centralized nervous systems, like those of human beings, can process information in complex ways, and it seems that this is what can convert information in experiences" (Horta, 2018, p. 382). The ability to have experiences is not a specifically human property that is also shared by some species, on the contrary, "The capacity to suffer is shared far and wide in the animal kingdom, and that no species can claim a privileged stake in them, or declare them its own» (Aaltola, 2012, p. 107). Sentience S is a necessary and sufficient property to have interests and experiences "sentience is a necessary and sufficient condition for any individual P to have interests. Sentience, or the capacity for conscious experiences, is a precondition for suffering and enjoying, inasmuch as it is a prerequisite to having experiences at all" (Faria, 2016, p. 8). Consequently, any sentient entity should be part of C. All members of C must be considered equal; unequal or disadvantageous treatment of their interests is an unjustified treatment that can be qualified as speciesist (Horta, 2010).

Therefore, we can consider as members of C the entities with property S. The selection of individuals that are part of C is made according to a non-arbitrary criterion. Any entity P (S) is a member of C, and any member of C must not be subject to any discrimination, being treated under the principle of equality [4]:

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[4] Different species may express their satisfaction or frustration in different ways without this implying that they are unequal. In fact, a complex experience may be less meaningful than a simple experience:

"It is not clear that the happiness that a small child or a dog enjoys while playing is less intense than the one we enjoy when reading an interesting book. Different interests can have the same weight, and so different animals can have different ways of being benefited or harmed, without that meaning the interests of one of them are stronger than those of others. Something similar happens with negative experiences. The suffering that non-human animals undergo if they suffer extreme pain and distress does not seem to be less intense than ours in situations that make us sad. At any rate, this is not a basis for claiming that they should be given less moral consideration than us. Considering equally the interests of different individuals does not entail that those interests have all the same weight. It entails that equally significant interests will count for the same. If one individual's suffering is more significant than another, it is perfectly compatible with their equal consideration to give more importance to the former. So, suppose that the controversial claim that complex cognitive capacities increase our suffering and pleasure were true. That would not mean that the interests of those who have complex cognitive capacities would always be more significant ones (note that their interests are not only vital ones, often they are relatively unimportant ones). In those cases in which their interests are less significant than those of beings with simpler minds their interests would not count more, but less." (Horta, 2018, p. 385)

> One fundamental right could be the right not to be used as a means against one's will, which is related to a famous Kantian categorical imperative: treat humanity never merely as a means to an end, but always at the same time as an end (Kant 1785). Your body belongs to you and no-one else can use your body if you do not want that. That is your right to bodily autonomy. And everyone and everything should get this right. [...] Everything that you feel from within as being your own stuff. This requires sentience. Non-sentient objects do not experience anything and hence do not know their own bodies, as if they do not have bodies. Without sentience, the right to bodily autonomy is always trivially satisfied (not violable), because there is no subjectively felt body and there is no will. (Bruers, 2021, p. 968.)

Biocentrism and infocentrism

Granting rights and legal protection to non-human entities would seek to minimize the ecological crisis manifested in the climate crisis and the loss of biodiversity. We can think of the proposal of international recognition of ecocide as a crime, and the creation of an International Environmental Court:

> In April 2010 a proposal for an international law of Ecocide was submitted to the United Nations Law Commission by U.K.-based lawyer, Polly Higgins. Higgins proposed the following as an amendment to the Rome Statute: "Ecocide is the extensive damage to, destruction of or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished" (Higgins et al. 2013, p. 257).

For *Stop Ecocide International* (2022) ecocide should be listed alongside genocide as an international crime. In the face of attempts to sue and fine corporations, "The criminalization of ecocide would hold personally accountable the individuals who make decisions which lead to grave environmental damage" (Minkova, 2021, p. 10). If approved by the members of the International Criminal Court (ICC), it will become the fifth crime incorporated into the Rome Statute of the ICC, along with war crimes, crimes against humanity, genocide and the crime of aggression.

Under the P(S) approach, the defense of C "leaves other living things outside that boundary" (Singer, 1993, p. 276). Therefore, the importance of ecosystems and the environment is considered in an instrumental way and "in so far as they adversely affect sentient creatures" (1993, p. 277). If the effects on nature have repercussions on ourselves, it is in our interest to respect environmental processes or, at least, to mitigate damage to ecosystems. While ecosystems would not be worthy of moral consideration and inclusion in C, because they lack S, the relationships that bind us to ecosystems would give rise to prescriptive recommendations that guide our behavior with P (¬S) entities.

Sensocentrism seems to be the substitute for the old anthropocentric dualism. P (S) draws a boundary with the rest of natural entities P (¬S). The understanding of sentient entities as belonging to the web of life gives rise to the approach of relations R. Sensocentrism is a necessary, but not sufficient, condition for the protection of the members of C. On the contrary, R would be a theory with greater explanatory and integrative power, ensuring more effectively the life of the members of C. Following Mark Coeckelbergh (2013, p. 64), it is problematic to define entities without reference to their relationships:

> For example, a particular animal has its place in the ecosystem and in the webs of social relations with other animals. These relations also have a history and are tied to specific places, habits, and things. To define moral standing in isolation from these relations is itself a moral violation, since it

> takes as its departure an abstract "entity" with "properties". Even the very term "animal" constitutes already such an abstraction and hence violation.

With R we understand that humans and other animals are embedded in the web of life. All species are dependent on biotic communities and the "intricate linkages of cause and effect and feedback in the web of nature produce many unintended consequences from purposive human action" (Catton & Dunlap, 1978, p. 45). For Naess, it is necessary to understand nature as a totality of which we are a part, a relational field, "Relationalism has ecosophical value, because it makes it easy to undermine the belief in organisms or persons as something which can be isolated from their milieux" (Naess, 1990, p. 56). Humans and other animals are in relation with nature and cannot live outside of it:

> Organisms as knots in the biospheric net or field of intrinsic relations. An intrinsic relation between two things A and B is such that the relation belongs to the definitions or basic constitutions of A and B, so that without the relation, A and B are no longer the same things. The total-field model dissolves not only the man-in-environment concept, but every compact thing-in-milieu concept — except when talking at a superficial or preliminary level of communication. (Naess, 1973, p. 95)

Biocentric arguments seek to extend the intrinsic value to the rest of living beings P (¬S) and to entities considered by biologists as "non-living" such as "rivers (watersheds), landscapes, cultures, ecosystems, *the living earth*" (Naess, 1990, p. 29). For Naess, "the flourishing of human and non-human life on Earth has intrinsic value. The value of non-human life forms is independent of the usefulness these may have for narrow human purposes". In contrast to anthropocentric dualism, the human being is one more member of nature that is not above other beings; therefore, human beings "have no right to reduce this richness and diversity except to satisfy vital needs" (p. 29). By blurring anthropocentric and sensocentric dualism, the extension of intrinsic value reaches the entire biosphere and harming any living entity is wrong: "what it does entail is that humans must not do such a thing without an adequate moral reason that outweighs the wrongness of the act. Exactly the same holds for killing or harming a human" (Taylor, 1983, p. 242).

Biocentric ethics considers worthy of moral consideration the interests of sentient living beings and complex entities such as ecosystems. This consideration would lead to suspending the desires of human beings —secondary or artificial needs— in case of conflict of interest with a primary or vital need of some entity of the biospheric community C+. Any natural entity P (S ∧ ¬S) is a member of C+, and every member of C+ has intrinsic value.

For Coeckelbergh (2012), biocentrism combines relations and properties, therefore preserves the P-focus by identifying entities with biological properties. These observations have led to new relational developments. Biocentric ethics has been challenged by information ethics, an ecological ethic that would replace biocentrism with ontocentrism by defending "that there is something even more elemental than life, namely being —that is, the existence and flourishing of all entities and their global environment— and something more fundamental than suffering, namely entropy" (Floridi, 2006, p. 26). The biosphere is extended to the infosphere, and the ethical discourse is based on.

> Any entity, understood informationally, that is, not only all persons, their cultivation, well-being and social interactions, not only animals, plants and their proper natural life, but also anything that exists, from paintings and books to stars and stones; anything that may or will exist, like future generations; and anything that was but it is no more, like our ancestors or old civilizations [...] This ontological equality principle means that any form of reality (any instance of information/being),

> simply for the fact of being what it is, enjoys a minimal, initial, overridable, equal right to exist and develop in a way which is appropriate to its nature. (p. 26)

But an ontocentric discourse can be morally problematic by dissolving the difference between biological and artificial entities. With this clarification we want to point out the dangers of erasing the biocentric difference and giving the same value to living and non-living entities. Moreover, it opens the possibility of new damages and disprotections: the infosphere, by putting the focus on any entity, does not pay attention to any of them, producing the evaporation of morality. Therefore, we will defend a biocentric hierarchy in the last instance, which, however, does not prevent us from recognizing as necessary the cultivation of relationships with any entity, a valuable contribution of ontocentric or infocentric theories.

For sensocentrism, none of the mentioned entities would fulfill the condition P (S), so its interest would be only instrumental. On the contrary, if we adopt R, what is important is the cultivation of non-destructive relationships with any entity. Sensocentrism establishes an epistemic gap between P (S) and P (¬S). Biocentrism corrects that gap, including natural entities P (¬S). Under R, what is important is to judge the kind of relation we establish with natural and artificial entities, with sentient and non-sentient living beings—saving the biocentric principle in case of moral dilemmas. The R approach gives rise to a relational ontology: C+R.

In conclusion to this section, we will offer one last example. In recent years, the moral consideration of artificial entities has been explored extensively (Gunkel, 2018). At the political level, the European Parliament has drafted a resolution that speaks of the possibility that future artificial entities may be considered electronic persons. As a result of this type of institutional resolutions, the media have echoed the problem of the possibility that artificial entities may have experiences of various kinds. Consequently, academic reflection has deepened at a theoretical level on this possibility. Artificial entities are "all manner of machines, computers, artificial intelligences, simulations, software, and robots created by humans or other entities" (Harris & Anthis, 2021, p. 3). Different issues have been raised around the moral consideration of artificial entities "whether artificial entities are "moral patients" deserve to be included in humanity's moral circle should be granted "rights", or should otherwise be granted consideration. Moral consideration does not necessarily imply the attribution of intrinsic moral value" (p. 3). But, following Coeckelbergh's (2013, p. 74) line of argument, what is important is not the P-focus and the possible appearance of P (S) in artificial entities, such as future robots, but rather "the otherness of the robot and the question where we stand and what the *we* is. The doubt is no longer about the properties of the robot, but directly about the moral questions about how to relate to the robot: Is this robot part of *us*?"

Thus, the moral question is to evaluate the kind of relationship we have with any entity, whether it is an entity with historical or artistic value, a natural or sentient entity, or an intelligent artificial entity. The principle of non-destruction would apply to our relationship with the world in a systematic way, with the biocentric exception as a guiding principle in the case of irresolvable moral dilemmas.

Abstract structures and Relational Qualities

S is an abstract entity isolated from the web of relationships that make it possible—ecosystems, habits, relationships with other entities, the web of life. R, however, allows us to recognize the complex and interdependent reality of any entity. For certain purposes natural entities can be reduced to

abstract structures, but this transformation has consequences for the equilibrium of a system of biotic relationships.

The theory of primary qualities defends that certain abstract structures are intrinsic qualities of reality. What are the foundations of this theory and what is its impact on P (S ∧ ¬S) entities?

The mechanistic conception of matter —characterized by extension and its location in space and time— would be responsible for reducing reality to abstract structures. The scientific revolution of the 17th century will understand that only things that can be quantified are real, such as time and space, which can be quantified thanks to different measuring instruments.

Mechanistic physics will affirm that everything we observe is nothing more than the effect of the movement of small particles of matter, because "physical reality contains only particles of matter in motion" (Westfall, 1977, p. 33). For philosophical mechanism, size, shape, form, quantity and motion are the only objective qualities. Secondary qualities are relational qualities, mere subjective effects of the properties of matter. Although Galileo cannot be considered a representative of the mechanistic conception that would dominate the 17th century —through the work of Descartes and Gassendi— he was one of the first to defend the theory that only those properties that can be geometrically and mechanically determined can be considered real:

> This was the notion already found in Democritus, that sensual qualities such as colour, taste, and odours are not to be regarded as intrinsic properties of the bodies outside ourselves, but that the perceptions which had formerly been attributed to the presence of those qualities are merely the result of the way our senses are affected by that which alone really exists, the atoms and their motions. This was the beginning of a development which in Locke was to lead to the definitive discrimination between the geometric-mechanical qualities referred to as primary qualities, and all the others, which are called secondary (Dijksterhuis, 1961, p. 423)

The mechanistic philosophy of nature generated the dualism between primary qualities "which were considered to be really inherent in a physical body as such, and the secondary qualities, which were mere names for the perceptive sensations and the feelings of pleasure and pain experienced in consequence of, or in connection with, physical processes in the external world" (Dijksterhuis, 1961, p. 431). Consequently, the sensory experience would be an illusion because "the world is a machine, composed of inert bodies, moved by physical necessity" (Westfall, 1977, p. 33).

Relational qualities, resulting from the impact of matter on the observer, are difficult to quantify and, therefore, are not valid for scientific knowledge. Thanks to the observer, we receive a world with colors, smells and other sensations, but the relational experience is not valid for a science understood as a quantitative science of reality independent of the observer. For mechanistic philosophers, secondary qualities —color, taste, smell, heat or cold— are subjective qualities not present in objects. The world is divided between relational subjective contents and independent or non-relational objective contents. This division established a hierarchy between real qualities and apparent qualities.

The history of modern epistemology describes a generalized conception that would have allowed to reduce the world to magnitude and resource, affecting natural entities P (S ∧ ¬S). If reality is reduced to physical-mechanical properties, the world is reduced to abstract structures, distinct from concrete experiences. The "epistemological ego" impedes us from visualizing the spontaneous and concrete impression of animal suffering. Animal bodies are reduced to an external, divisible and quantifiable entity, that is, an abstract entity. Animals would be mere resources that can be fragmented or designed to increase their productivity. Divided like numbers, they can be offered for sale and their

integrity being recovered in the form of a monetary sum. In fact, faced with the evident impression of reality offered by their anguish and pain, we quickly generate abstractions, justifications and utilities that make us forget the concrete impressions that bring us closer to their suffering.

Galileo's quantitative science cannot capture relational qualities, these being a mystery to science. But this answer is not satisfactory: a more complete theory of reality is needed that overcomes such a narrow paradigm and does not renounce either the physics or the reality of relational experience, "a more expansive *post-Galilean* science of reality" (Le Goff, 2019). If, according to the logic of identity[5], knowledge can generate abstract structures —which reduce spontaneously received reality to computable units— we can also recognize that the world is composed of relational qualities. Sensations and abstract structures are real qualities of a situation. To speak of subjective and objective ceases to make sense, because "subjective qualities" are not part of the realm of appearances. Relational qualities are real.

Conceiving nature and other animals in solely mechanistic terms, by means of an epistemological ego that handles abstract structures, prevents us from developing the links that lead us to value relational qualities —relational, but not relative. The mathematical representation of a sensation evaporates the concrete sensation. A less reductionist conception of reality would value the relational qualities of a situation. In fact, abstract structures are nothing more than the operative product of a problematic or indeterminate situation[6]. The reduction of the world to primary qualities would allow all kinds of destructive practices resulting from reducing nature to an abstract structure of mechanical character:

> The identification of primary properties with those of objects themselves leads to a conception of nature without any of the qualities we experience spontaneously. Now, there is no good reason why we should not look upon such a bleak nature as just a resource. Every appeal to save parts of nature based on reference to sense-qualities of any kind becomes meaningless. Every passionate appeal that reveals deep feelings, empathy, and even identification with natural phenomena must then be ruled out as irrelevant. The sphere of real facts is narrowed down to that of mechanically interpreted mathematical physics (Naess, 1985, p. 420).

Understanding nature geometrically is useful for the construction of bridges and roads, but this attitude may not respect or be unaware of the complex networks that are woven within it. Ecological reflection has considered that the reduction of nature to an abstract mechanical entity, devoid of qualities, has allowed deleterious practices on the environment and other animals. To conceive nature

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[5] We understand that quantitativism follows the logic of identity that produces these abstract structures and eliminates differences. What is the logic of identity? "The logic of identity goes beyond such an attempt to order and describe the particulars of experience. It constructs total systems that seek to engulf the alterity of things in the unity of thought. The problem with the logic of identity is that through it thought seeks to have everything under control, to eliminate all uncertainty and unpredictability, to idealize the bodily fact of sensuous immersion in a world that outruns the subject, to eliminate otherness." (Young, 1987, p. 61).

[6] Its usefulness is demonstrated by reducing the indeterminacy of the situation. For Dewey, "what is designated by the word *situation* is not a single object or event or set of objects and events. For we never experience nor form judgments about objects and events in isolation, but only in connection with a contextual whole" (Dewey, 1938/1986, p. 72.) Dewey (1938/1986), following Charles S. Peirce (1877/2021), understands that the indeterminacy of a situation - the malaise, irritation and discomfort of the situation - gives rise to courses of action to transform - by means of abstract structures, for example - the painful situation. Pain is a crack that opens in the fluid unity of the situation and leads to its closure through inquiry. A given situation is a unified relational field that fractures when situations of uncertainty appear. We build tools or abstract structures to get out of painful situations. FERNÁNDEZ-MATEO, Joaquín. John Dewey's theory of inquiry. Quantum physics, ecology and the myth of the scientific method. *Agora: papeles de Filosofía*, 2021, vol. 40, no 1, pp. 133-154.

qualitatively —to feel smells, sounds, to perceive the natural forms that we receive spontaneously— would limit the reduction of a forest or a beach to a mere abstract structure useful for destructive economic purposes[7].

If we only think in abstract structures, the phenomenal experience of an animal's pain can be replaced by an economic calculation facilitated by a mechanical technique. Cold rationality prevents us from forging bonds —something that, on the other hand, also happens when human beings adopt a distanced, spectator attitude towards an external object, and consider other humans as mere means. The reduction of reality to an abstract structure by analytical thinking is a derivative of a situation whose starting point is a concrete content "when one is absorbed in contemplation of a concrete, natural thing there is no experience of a subject-object relation. Nor when absorbed in vivid action, whether in movement or not" (Naess, 1985, p. 422). Territory and map are concrete and abstract contents, respectively, of the same situation.

Biocentrism and sensocentrism follow the P approach. While sensocentrism has the virtue of introducing the criterion of moral consideration P (S), it perpetuates dualism by establishing a gap between P entities (S ∨ ¬S). While biocentrism corrects this gap, it does so by combining relations with properties[8], and may not develop the R approach systematically enough by excluding social relations or relations with artificial entities. This paper demonstrates the explanatory power of R but, at the same time, proposes to retain a property criterion in case of moral dilemma endangering natural entities P (S ∧ ¬S).

For sensocentrism, the entities P (¬S) that allow the effective flourishing of C are irrelevant or instrumentally relevant. In fact, nothing would happen by destroying P(¬S) entities. However, any sentient entity belongs to a relational situation and must (re)insert itself into the broader community: C+.

It is impossible to imagine, except in the case of systemic collapse, a world without complex artificial entities. Today C+ is not just a biome, it is a technological supernature. Relationships with artificial entities determine our lives and abstract structures, used in a virtuous way, are also possible solutions to C+ problems. Therefore, a balance between abstract entities and their possible negative environmental impacts is necessary.

Conclusions

For sensocentrism, any entity of C must be protected from instrumentalization or use of its body. We are part of the biosphere, but it is also true that technosciences generate a habitable space —

[7] Respect for the landscape would lead to a more rational understanding of economic activity: "Substantial rights to landscape should concern sensory —visual, auditory, olfactory, tactile, taste— and emotional perception which a population has of its environment. As the Convention mentions, each aspect should be considered according to the "landscape quality objective" formulated for a specific landscape, by the competent public authorities of the aspirations of the public with regard to the landscape features of their surroundings [...] The European Landscape Convention mentions in its preamble that "The landscape ... has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity" (Déjeant-Pons , 2016, p. 55)

[8] "Deep ecology (as a theory of moral status) remains properties-based and is vulnerable to the collectivism objection. It is properties-based since it requires 'life' or 'sentient life' as a property that warrants moral status. Moreover, it tends to become collectivist and perhaps even totalitarian to the extent that it prioritizes the whole ('nature', 'the Earth', the biospheric community, the ecosphere, etc.) over the parts (organisms, living entities). Both features meet if the whole, for example nature, is said to have certain essential properties and is treated as an individual" (Coeckelbergh, 2012, p. 48)

a supernature— that guarantees the safety and well-being of any member of C [9]. Any member of C should receive the necessary attention to reduce pain and suffering, which means to reduce the harms wild animals suffer (Horta, 2017b, Faria, 2023). But, at the same time, biocentrism reminds us of the disruption of systemic balances and interdependencies generated by technification and the maintenance of a "supernature", impacts that can increase the pain and suffering of C. For biocentrism, the question is, to what extent can we maintain a technosystem without it degenerating into an environmental imbalance that endangers the members of C+? What are the limits to the growth of technosystems?

With the studies of Schneider and Kay (1991) we can affirm that, as the technoscientific system grows in complexity, in order to maintain its own order, it needs to increase the disorder of the environment that contains it. Following the thermodynamic evolution of systems, we understand that, in order to maintain the structure of a complex system, a continuous flow of energy is needed, which implies increasing the disorder of the rest of the systems in which it is inserted. A technoscientific system requires high energy consumption and constant economic growth that can have negative consequences on ecosystems. If biocentrism teaches us that ecosystems are not external to C but a condition of the possibility of C, we have to affirm that no P(S) is independent of C+[10].

Concrete relationships allow us to spontaneously feel animal suffering and develop bonds of identification with that experience, limiting the mechanistic reduction of animal bodies to objects of use and consumption. Likewise, the approach of concrete relationships allows us to recognize the aesthetic qualities of nature, achieving a more rational understanding of our activity in the biosphere.

With R we understand that the destruction of the biosphere is the destruction of C and, therefore, of any P (S). With R we understand that the protection of C implies the protection of a biotic community C+. With R we understand that we must cultivate healthy relationships with artificial entities because of their social and environmental impacts. Let us think of the addiction generated by social networks or the environmental impact of technologies with high energy consumption[11]: both are the result of an excess that departs from virtue.

What is the most integrative theory? P (S) would seek to elevate zoocide to the International Criminal Court, but not ecocide. P (S ∧ ¬S) would elevate both petitions as destructive practices against valuable natural entities. However, since we live in a technological society, we must recognize that we coexist with abstract entities, and we need to cultivate healthy relationships with any kind of entity. Therefore, R offers a broader scope and, because it can be applied to any number of relational situations, it has broader and more systematic moral consequences.

Some speculative projects of large-scale intervention in nature call for the creation of a supernature that would guarantee the safety and well-being of wild animals. But that supernature would seek to introduce systemic modifications —for example, gene editing or engineering of nature— and not "interventions on a piecemeal basis" (Delon and Purves, 2018, p. 257). If ecology teaches us the need to

[9] For Ortega (1939-2010), technology is a reform that human beings impose on nature in order to satisfy their needs. This response leads him to invent a "supernature" that protects him from its impositions.

[10] We can emphasize the great difference between C and C+ by imagining, on the one hand, a large spacecraft that sails through space protecting an interspecies community from any external aggression with advanced technology and, on the other hand, the complexity of the ecological ties that are woven on planet Earth among all its inhabitants.

[11] One of the serious problems we are currently experiencing is the enormous consumption of material and energy resources in the digital society. Due to the length of this article, we cannot address this issue in depth, but the infosphere endangers C+. LANGE, Steffen; POHL, Johanna; SANTARIUS, Tilman. Digitalization and energy consumption. Does ICT reduce energy demand? *Ecological Economics*, 2020, vol. 176, p. 106760.

maintain intersystemic equilibrium, the intervention should be such that it does not cut —even more— the already fragile networks that still keep us in the web of life. Therefore, the type of interventions carried out should be specific and limited, in the best interest of C+: "Humans presently lack the knowledge and technical ability to seriously "solve" the problem of wild-animal suffering without potentially disastrous consequences" (Tomasik, 2015, p. 147) and "the indeterministic nature of ecosystems leaves us, at present and for the foreseeable future, with no reason to believe that large-scale interventions in the wild would reduce, rather than exacerbate, suffering" (Delon; Purves, 2018, p. 241).

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