



REVIEW

Anthropocentrism as the scapegoat of the environmental crisis: a review

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ABSTRACT: Anthropocentrism has been claimed to be the root of the global environmental crisis. Based on a multidisciplinary (e.g. environmental philosophy, animal ethics, anthropology, law) and multilingual (English, Spanish, French, German, Japanese) literature review, this article proposes a conceptual analysis of 'anthropocentrism' and reconstructs the often implicit argument that links anthropocentrism to the environmental crisis. The variety of usages of the concept of 'anthropocentrism' described in this article reveals many underlying disagreements under the apparent unanimity of the calls to reject anthropocentrism, both regarding what exactly is the root of the problem, and the nature of the possible solutions. It highlights the limitations of the argument of anthropocentrism as the scapegoat of the environmental crisis and identifies two main challenges faced by attempts to go beyond anthropocentrism: an epistemological challenge regarding knowledge and the place of sciences, and a metaethical challenge related to values and cultural pluralism. Beyond the issue of an anthropocentric point of view, the core of the problem might be an intertwining of views and assumptions that work together to undermine attempts to protect the environment from the greed of some humans, such as the human–nature dichotomy, capitalism, consumerism, industrialism, etc. Finally, this article suggests that making the nuances and the presuppositions that underlie various versions of the anti-anthropocentric rhetoric explicit is necessary to foster constructive dialogue among different anti-anthropocentrism proponents, as well as with their detractors.

KEY WORDS: Anthropocentrism · Non-anthropocentrism · Values of nature · Environmental ethics · Cultural pluralism · Intrinsic value

1. INTRODUCTION

The word 'anthropocentrism' is highly ambiguous, 'slippery' (Probyn-Rapsey 2018) and used in multiple meanings, while it remains simply undefined most of the time when it is used negatively as something we should avoid or that has negative consequences. The widespread confusion comes from the fact that it touches upon matters such as (1) what humans are,

(2) what morality/ethics are and (3) how we acquire knowledge about the world and ourselves. Distinctions such as normative versus descriptive, particular versus universal, concepts, linguistic tools and perception versus reality and facts are most of the time swept under the carpet in the rhetoric of anthropocentrism. Through a conceptual analysis of 'anthropocentrism' based on a multidisciplinary and multilingual literature review, this article proposes a

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reconstruction of the scapegoat¹ argument according to which anthropocentrism is the cause of the global environmental crisis. It identifies two challenges faced by attempts to go beyond anthropocentrism: an epistemological challenge regarding knowledge and the place of sciences, and a metaethical challenge related to values and cultural pluralism.

Crucially, regardless of whether the environmental crisis can be traced back to anthropocentrism, it is beyond any doubt that human activities drive the global environmental crisis, including climate change, biodiversity loss and pollution. In a joint workshop report, the Intergovernmental Panel on Climate Change (IPCC) and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) estimated that '77% of land (excluding Antarctica) and 87% of the area of the ocean have been modified by the direct effects of human activities', that 'more species are threatened with extinction than ever before in human history' and that climate change, driven by anthropogenic release of greenhouse gases, 'increasingly interacts with these processes' (Pörtner et al. 2021, p. 14). The anthropogenic causes of the environmental crisis, its severity and the urgency of the challenges and risks it represents for human societies (and living beings other than humans, and ecosystems) are not called into question.

Scrutinizing the idea of 'anthropocentrism' and attempting to better understand its usages and limitations does not challenge the anthropogenic cause of the environmental crisis. Instead, making the concepts used to discuss the environmental crisis clearer and less ambiguous is determining the success of fruitful dialogues and negotiations to act together towards sustainability (Ōmori 2010, p. 117). The overarching goal of this paper is to contribute to bringing some clarity around the concept of 'anthropocentrism' and the argument that links the concept to the environmental crisis, and to offer a basis for further developments and improvements.

First, this paper aims to map, across different languages and disciplines, the different usages of the word 'anthropocentrism', which is found in the middle of a cloud of other concepts used as synonyms or alternatives. Second, based on the literature review, it presents a tentative reconstruction of the argument that links anthropocentrism to the environmental

crisis. Third, it aims at identifying in the reviewed literature the main challenges of shifting away from anthropocentrism. The assessment of the veracity of the argument of anthropocentrism as the scapegoat of the environmental crisis lies beyond the scope of this paper. Such an assessment would be highly complex because it would need to bridge a deeply abstract level to concrete yet multifactorial environmental facts, across history and multiple social, political, institutional and cultural factors. It would require first and foremost a clear definition of the concept of anthropocentrism, probably followed by the development of a set of indicators that reflect the concept, and an in-depth historical analysis in different regions of the world and sociocultural historical contexts.

The multidisciplinary review covers 351 peer-reviewed articles and books across 5 main languages (English 57%, Spanish 14%, French 12%, Japanese 9%, German 7%; Fig. A1 in the Appendix). It aims at providing a panorama of the usages of the word and of the different meanings and associations it takes. This review is not exhaustive, but it was concluded after reaching a point where the general patterns of usage of the concept appeared to have been identified, and newly added articles largely fell into already described categories. Selected articles included the word 'anthropocentrism' or 'anthropocentric' and the related expressions such as 'anti-anthropocentrism', 'post-anthropocentrism', 'non-anthropocentrism' (as well as their translations) in their title, abstract or keywords². Google Scholar, Scopus, Academic Search Complete, Philosopher's Index and Ciini were the main search tools and bibliographic databases used. A minority of articles that did not fit this criterion were also included because of their direct relevance to the debate or because they were repeatedly cited in the main body of literature. Languages other than English were included deliberately to capture the diverse nuances the rhetoric of 'anthropocentrism' can take in different linguistic and disciplinary contexts. Most works were published between 1993 and

¹'Scapegoat' is used here as a metaphor. For a discussion of the sacrifice of animals to seek forgiveness for 'anthropocentric' sins, see Sawai (2020).

²Several environmental ethics texts that have been associated by secondary literature to the critique of anthropocentrism are relevant to the debates presented in this article, but they tend not to mention or define 'anthropocentrism' in the main texts. These texts are not included in the body of literature reviewed, but they are mentioned in the discussion when needed. That is the case, for instance, for 'land ethic' (Leopold 1989), 'deep ecology' (e.g. with the idea of an 'equal right to live and blossom' (Naess 1973, p. 96), (Rothenberg 1987, Naess 1989b, Drengson et al. 1995) and the work of Albert Schweitzer (Schweitzer 1923, 1947, Honsak 2000, Globokar 2020).

2022 (Fig. A2). The main disciplines represented are environmental philosophy and animal ethics, followed by philosophy, anthropology, law, history, literature, conservation, Christianity and ecofeminism (Fig. A3). Many publications could be linked to several disciplines and were classified according to the preponderant discipline in the specific part that discussed anthropocentrism. The distribution of disciplines varied greatly across languages, which could reflect that the term ‘anthropocentrism’ is used in different debates depending on the language (Fig. 1).

2. REVIEW OF THE DIVERSE USAGES OF ‘ANTHROPOCENTRISM’

Many authors root their exploration of anthropocentrism in the etymology (Cadavid 2012, Abreu & Bussinguer 2013, Blackburn 2013, Mahlke 2013, Borchers 2018, Kopnina 2019), namely the Greek words *άνθρωπος* (anthropos: human being) and *κέντρον*

(kentron: centre), or the Latin *centrum* (centre). The equivalent in French (anthropocentrisme), German (Anthropozentrismus), Spanish (antropocentrismo) and Portuguese (antropocentrismo) share the same roots. In Japanese, the translation for anthropocentrism is a recently constructed word that literally means human-centred-thought/ideology (ningenchushin-shugi). However, who places what at the centre of what (and what else is therefore excluded from the centre)? There is no consensual answer to this question; hence, the plurality and confusion of meanings of ‘anthropocentrism’.

Table 1 synthesizes the most common replies to this question, highlighting the most popular options in environmental philosophy and animal ethics. Notably, it is recurrent that these answers are absent or undefined and appear only implicitly in the texts. A quick look at Table 1 and the multiple combinations possible gives an idea of the wide range of debates that use the word ‘anthropocentrism’ in their rhetoric, and an idea of the extent of possible confu-

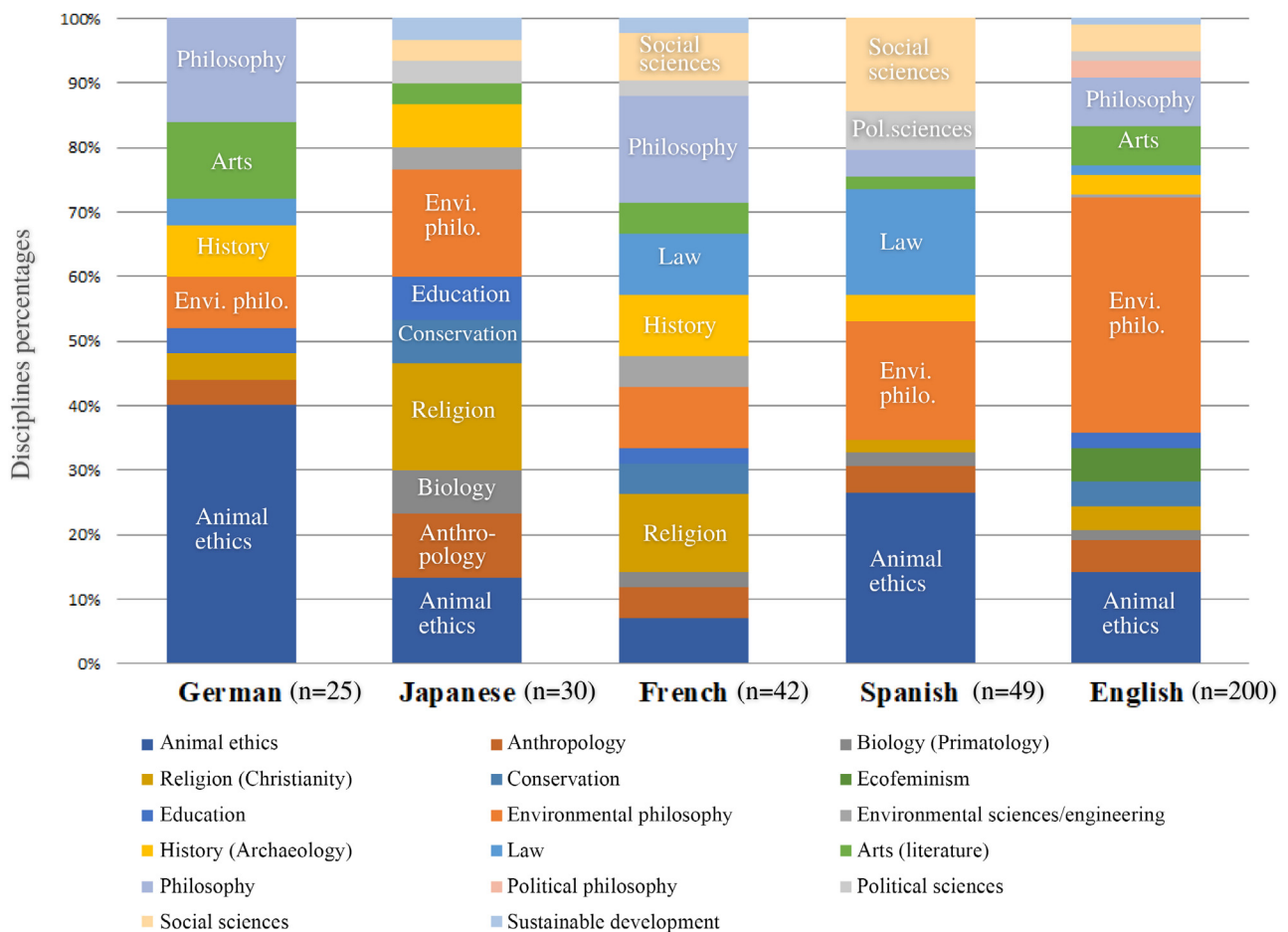


Fig. 1. Distribution of disciplines represented in the reviewed literature, by language

Table 1. Who places what/whom at the centre of what? What/who else is excluded? The most popular options in environmental philosophy and animal ethics are presented in **bold**. Each column represents a list of options found in the literature. Any option in a given column can be combined with any option in the other columns, regardless of the row. The sources of these statements are provided with explanations in detail in the main text Section 3

Who places	what/whom	at the centre of what?	What/who else is excluded?
Undefined/Erased	Human beings	Moral concerns	Animals/Sentient beings
Human beings	Human individual	Universe/World	Environment
The Self	Humanity	Political discussions	Nature
Human individual	the human self	Narratives	Other species
An ideology	Man	Ethical considerations	Plants
A worldview	Western idea of (hu)man	Ontology	Ecosystems
A philosophy		Sciences	God(s)/Spirits
A culture		Value	Machines/AI ^b /Things
God(s)	the Earth ^a		Women
Sciences	the Sun ^a		Life/Living beings
Politics	God(s) ^a		
Capitalism/the economic system			
The legal system(s)			
^a Cited as alternatives; ^b artificial intelligence			

sions and misunderstandings. Moreover, the answers to the question ‘who places?’ are all human-related, which reflects the circularity of the concept; it could read ‘human beings place human beings at the centre of the world of human beings’, or ‘we place ourselves at the centre of our world’. This raises the question of whether we can do otherwise and how (and do we really need to think in terms of centre).

2.1. What does ‘at the centre’ mean?

Usually left implicit, it can reflect (1) a perspective or standing point or (2) a hierarchical relation of domination relatively to an ‘other’ (the column ‘who/who else is excluded’) (Van Wensveen 2005, Shimazaki 2008, Martel 2012, Kouy 2013, Albaric 2014). The latter often relies on the assumption of an underlying dualism in which one element is given priority or is used as a reference point in terms of concerns, values, interests, rights, importance, etc. over another ‘excluded’ element (Taylor 2000, Nimmo 2011, Valera 2017, Castro 2018, Crist 2018). In other words, in the latter case, anthropocentrism characterizes a relationship between what is at the centre and what is not, and gives a preponderance to what is at the centre over what is being excluded.

2.2. Why is anthropocentrism bad?

Anthropocentrism is associated with a cloud of other words often treated as (semi-) synonyms, including:

- human chauvinism (Routley 1973, Seed 1988, Ferrer Montaña 2006, Boddice 2011, Kopnina et al. 2018, Hess 2019);
- homocentrism (Naess 1989a);
- speciesism (Singer 1975, 2011, O’Neill 1997, Milligan 2011, Faria & Paez 2014, Anzoátegui 2015, Marchesini 2015, Moser 2018, Almiron & Tafalla 2019, Dashper 2019, Krüger 2019);
- humanism (Ehrenfeld 1981, Szybel 2000, Nimmo 2011, Tranchant 2017, Morizot 2018, Kopnina 2019);
- human exceptionalism (Catton & Dunlap 1978, Calarco 2014, Haraway 2016, Locke 2017, Giraud 2019, Lorimer 2020);
- androcentrism (Plumwood 1996, Warren 2000, Pérez Marina 2009, Heffes 2014, Valera 2017, Yang 2017, Donzelli 2020);
- capitalism (Julien 2010, Blackburn 2013, Baumbach 2015, Fremaux 2019, Muradian & Gómez-Baggethun 2021);
- industriocentrism (Shoreman-Ouimet & Kopnina 2016), industrialism (Kidner 2014);
- human supremacism (Weitzenfeld & Joy 2014, Almiron & Tafalla 2019);
- egoism (Ferré 1994a, Hoffman & Sandelands 2005, de Jonge 2011).

The overwhelming majority of publications that criticize anthropocentrism attribute to anthropocentrism the causal source of negative states of affairs in the world, from being the cause of the global environmental crisis (Anzoátegui 2017) to the justification for animal abuses. There is a trend in treating anthropocentrism as obviously wrong, and being accused

of anthropocentrism appears to be a charge sufficient enough to dismiss an argument or author. For instance, authors can be 'criticized as anthropocentric' (Streim 2008, p. 2) and reasoning 'marked by an unjustifiable anthropocentric bias' (Pepper 2016, p. 114). Readers are told the story of 'the tragic anthropocentrism of our global civilization' (Locke 2017, p. 77), that this 'speciesist anthropocentrism inherent in the current dominant ethics is what prevents humanity from reacting to the main human-induced drivers of global warming' (Almiron & Tafalla 2019, p. 255), and that they know the consequences of 'this radical anthropocentrism of Western modernity that denies animals the ownership of a soul and bring them down to the level of things' (de Fontenay 2009, p. 27). Anthropocentrism is 'equated with forms of valuation which easily, or even necessarily, lead to nature's destruction' (Light & Rolston 2008, p. 9), and, consequently: 'We are told by some theorists that we must assume that an adequate and workable environmental ethics must embrace a restricted set of properties: non-anthropocentrism, holism, moral monism, and, perhaps, a commitment to some form of intrinsic value' (Light 1996, p. 273).

An explicit argumentation of this notion of anthropocentrism as the scapegoat of the environmental crisis was not found in this literature review, so Box 1 presents a tentative reconstruction of what is left implicit.

Needless to say, each of these premises as well as the jump between each line of this reasoning are open to debate. A common theme is also to associate the reasoning 1–5 in Box 1 with the 'West' (Weitzenfeld & Joy 2014, Carroll 2017, Fremaux 2019) or with

Box 1. Anthropocentrism as the environmental crisis scapegoat

Reconstruction of the argument of anthropocentrism as the environmental crisis scapegoat

1. Human societies use humans as a reference point.
2. The belief that humans alone have moral standing, or else a surpassing degree of it is and has been dominant in history.
3. These beliefs have justified individuals to adopt ego-centric and egoist attitudes towards the world (or the excluded).
4. As a result, societies developed a relationship of domination and control over the world (or the excluded).
5. Capitalism, industrialism and consumerism emerged from this context and caused the current global environmental crisis, be it climate change, biodiversity loss, or industrial animal farming.
6. Therefore, we need to get rid of anthropocentrism to save nature.

'Christianity' (Gisel 2005, Llored 2017) and to idealize the hypothetical alternative, supposedly non-anthropocentric, such as 'indigenous' traditions (Taylor 2000, Rose 2005, Kopnina et al. 2018), which remains unclear with no concrete example or case study provided. Meanwhile, some 'non-Western' cultures have been shown to be marked by 'anthropocentrism', such as the 'Chinese' culture (Bruun 1995, p. 175). Moreover, the defence from Abrahamic religions is fierce, with authors arguing that Christianity and Judaism are not anthropocentric but theocentric, and that returning to theocentrism represents a key solution to the environmental crisis (Funes 1979, Gisel 2005, Hoffman & Sandelands 2005, Nakagawa 2017).

3. SCRUTINIZING THE ARGUMENT

Let us now examine the argumentation presented in Box 1 premise by premise, drawing from the literature.

3.1. Human societies use humans as a reference point

'Man is the measure of all things'³ (Viejo Montesinos 1996, Weitzenfeld & Joy 2014). This descriptive statement can refer to the fact that we, as embodied human beings, perceive and make sense of the world from our perceptual human standpoint. This amounts to perceptual/perspectival unavoidable anthropocentrism in the sense that we cannot avoid living, perceiving and thinking from within our human body and cognitive system. In this sense, perspectival anthropocentrism is an unavoidable fact pertaining to our human condition, so calls to go beyond this type of anthropocentrism to save nature are void, for it is impossible.

Another possible meaning of this statement is that human beings are used as a reference point for the description of the world. Yet, this interpretation necessitates specifying who endorses this statement, for it would be misleading to take it as generally correct. For instance, several authors have analysed European history to show different options that were dominant at some times, such as placing God at the centre and as a reference point for the description of the world (Silverman 2011, Simkins 2014), or cen-

³This expression was made famous by Plato who cited Protagoras in Theaetetus, Section 152a.

tring the world around the earth or the sun, with the Copernican revolution that moved from a geocentric model of the world to a heliocentric model (Stoffel 2001, 2003, Durieux 2007, Blackburn 2013).

Another issue of this statement is the unclarity of which human is actually taken as a reference point. Who exactly is the archetypical human being privileged to be used as a reference point? Is it a child, an old grandfather, a menstruating woman, someone who can walk, a blind person? The diversity of human experiences intra-individually (e.g. at different times within one individual's life), inter-individually (e.g. between different people with bodies with different capabilities) and interculturally is erased in this statement. What is human? What is the self? Is there a self? Questions such as these have been widely debated in all traditions of thoughts based in different ontological and metaphysical assumptions, such as ontologies of being or ontologies of emptiness, phenomenology and theories of consciousness. Begging these questions risks imposing one implicit understanding of what 'human' is on this diversity of conceptions of humans.

Therefore, when interpreted in the sense of perceptual/perspectival anthropocentrism, this first premise is either an unavoidable fact without normative reach, or a misleading generalization that can be debunked through historical, cross-cultural and anthropological analyses.

3.2. The belief that humans alone have moral standing, or else a surpassing degree of it is and has been dominant in history

This is a statement about a normative belief. Beyond the aforementioned question of who this 'human' is, this statement raises two other questions: What does 'to have a moral standing' mean (in relation to what is excluded)? According to what criterion (if it is something that can be derived in degrees)?

A brief look at history shows that the idea that all human beings have moral standing has not always been (and might not be) dominant everywhere, as shown by slavery, colonization, the fight for women's rights and human rights, racial or religious discrimination, etc. (Weston 1991). Answers to the question of who is to be included within the community of persons in charge of discussing and judging the morality of actions and practices vary greatly across cultures, groups and times (Wolloch 2006, Hall 2011, Grusin 2015). Following this point, some argue that there has been a 'natural' progressive widening of the

scope of this community, which could legitimately include currently excluded others such as animals, ecosystems, plants, elements of nature, etc. (Bell & Russell 2000, Kopnina et al. 2018).

Yet, a key distinction must be made between the community that is given authority to have a say in the discussions about ethics (e.g. the clergy, politically elected representatives, every living human being) and the community that is concerned/affected by the consequences of these decisions. In the case of widening of the scope of the moral community to give all living human beings moral standing, there is general reciprocity between who has a say in the decisions about ethics, and who is affected by them. Notably, the extent of the scope of the entities affected by the consequences of our human decisions is not a matter of choice, but a matter of fact; currently, our human decisions have impacts, to different degrees, on all ecosystems, living beings and entities that exist on earth. Yet, there is a procedural obstacle in widening the community of those with a say in the discussions about ethics to include entities other than humans: we cannot debate, exchange and argue about normative questions with non-human living beings like we do between human beings. Any theory that aims at this widening must account for procedural guidelines regarding how we are to know, understand and negotiate ethical questions with beings other than humans.

The criterion 'we', i.e. the group of humans who auto-assign to ourselves the legitimacy to discuss and judge, which is used to decide who and what has 'a moral standing' (and the relevance of such criterion; Hall 2011, Francione 2018) has been debated for centuries in diverse traditions of thought around the world, and the variety of responses include consciousness, sentience, capacity to feel pain, intelligence, soul, being alive, the ability to flourish, etc. (Palmer 2002, Horta 2009, Almirón & Tafalla 2019, de Castro 2020, Muradian & Gómez-Baggethun 2021). Once criteria are selected, some advocate a gradualism of moral standings between living human beings (often considered as a uniformed and undefined whole) and the excluded others such as animals, sentient beings or plants (Skirbekk 1995, Salazar Ortiz & Durón 2017, Crelier 2020). For instance, different species of living beings other than humans could be included to various degrees within the community that holds moral standing depending on their degree of responsiveness to pain. Scientists could be in charge of studying each species and assigning a degree of ability to feel pain that would later be translated into ethical discourse and lead to the

establishment of legal restrictions regarding what humans can do to this species.

This premise touches upon the nature of being human and morality, but it already restricts the possible answers by its framing in terms of hierarchy, degrees and inclusion/exclusion. Moreover, including an element within a moral community, or assigning 'intrinsic value' to it, does not necessarily imply the need for human agents to respect it, so an explanatory gap remains for achieving practical ethical guidelines (Warren 2000, Hall 2011).

3.3. These beliefs have justified individuals to adopt egocentric and egoist attitudes towards the world (or the excluded)

Anthropocentrism has been associated to egocentrism (Nakajima & Murashita 2005, Midon 2015) and egoism by some authors (de Jonge 2011, García Lirios 2012), as parts of the list of 'environmental vices' along with 'arrogance, carelessness, competitiveness, consumerism or greed, contempt, cruelty, denial, despair, domination or mastery, pride', etc. (Van Wensveen 2005, p. 21). Usually attributed to individuals or individual behaviours, these psychological characteristics are extrapolated into traits of what it is to be human, or characteristics of the human species. For example, Julien defines anthropocentrism as 'seeking to satisfy one's own species needs without regard to the fate of other life forms; this is perhaps the normal mode of functioning of any species', and he warns that there is an 'obvious ecological danger in the selfishness of a species as dominant as humans' (Julien 2010, p. 13). In other words, egoism in individuals—and anthropocentrism—is not necessarily a problem, but it becomes one when it is magnified at the scale of humanity whose practices can have, as a whole, highly harmful environmental consequences.

Yet, egoism and egocentrism refer to attitudes of the human self and have been analysed in ethics around the world with regards to considerations about the self and how one should lead one's life. To elevate egoism from a trait that can be found in the 'I' to an essential characteristic of the 'we, humans' amounts to redefining what it is to be human in terms of one specific trait, egoism. The move between premises 1, 2 and 3 (Box 1) confuses the distinction between the self and the group, and between normative and descriptive statements. This confusion leads to a paradox: The idea that individual human beings are fundamentally independent, egocentric and morally egoist conflicts with the idea that they

believe that humanity, i.e. all living human beings as a whole, is at the centre of moral concerns. In other words, moral anthropocentrism is already a step away from egoism and egocentrism by virtue of supporting and defending an idea of humans that goes beyond the isolated individual self.

Finally, there is no necessary logical implication between premises 1, 2 and 3. Egoism (3) is identified as an ethically problematic psychological trait in human selves without any relation to beliefs that all humans have moral standing (2), and that the human is the central reference point (1).

3.4. Societies have developed a relationship of domination and control over the world (or the excluded)

Anthropocentrism is also associated with human domination (Iwasa & Bunrin 2002, Argullol 2004, Shimazaki 2008, Martel 2012), mastery (Plumwood 2002) and control of nature (Marchesini 2018). This rests on a dualist thinking that separates two elements (which raises the question of whether they are separable or not; Guha 1989, de Castro 2004, Bergthaller et al. 2014) and places them in a hierarchical opposition, e.g. human–nature dualism, nature–culture dualism or human–animal dualism. According to this view, the human species erected itself as superior to other species and therefore self-proclaimed as the legitimate dominator to control nature, including annihilating other species (Boyd 2005, Pérez 2015). Following the human exemptionalism paradigm, human beings are not governed by natural conditions; they have 'complete control of their own destiny' thanks to culture, which gives us the capacity to solve 'natural problems' (Hirata 2005, p. 72).

If anthropocentrism supposedly reflects 'this tendency to vastly exaggerate human dominance, understanding, power, autonomy', this control is nothing but an illusion, for 'far from being unified, we human beings barely keep our tendency toward mass slaughter of one another under fragile and sporadic control. We are nowhere remotely close to being able consciously to guide the course of history or even the evolution of technology' (Sax 2011, p. 36). Baratay (1998, p. 23) observed that 'principles of domination' and the idea of humans as 'omnipotent masters' have been challenged to give way to advocacy of respect towards animals at least since the 1930s.

The domination aspect of anthropocentrism has also been discussed in view of racist, colonialist and sexist worldviews (Calarco 2014, Deckha 2021). Eco-

feminist thinkers have argued that there is a parallel between the domination of man over nature and the domination of men over women, insofar as the traits linked to, and justifying, human domination of nature (e.g. active, controlling, rational, self-interested) amount to the traits that tend to be associated with manhood and used to legitimize the oppression of women and of elements that present female-associated traits (e.g. passive, nurturing and caring, emotional, compassionate) (Warren 2000, Plumwood 2002, Yang 2017). To refer to these dominating tendencies as anthropocentric is misleading, as they do not characterize all humans. Instead, for some authors, this reflects an androcentrism (Plumwood 1996, Pérez Marina 2009). Defining what humans consist of in terms of a particular dominant group of human beings or specific traits that are dominant in some human individuals reinforces the domination of this group and the normalization of this trait over other human beings, while erasing the diversity of other ways of being human. The same criticism stands regarding other human groups excluded from this narrow understanding of anthropocentrism as characterized by domination and control, such as some indigenous communities (Rose 2005, de Castro 2020), some non-Western cultures (Guha 1990, Yuasa 1993, Droz 2018) and any other cultural worldview that defines humans in different terms (Grey 1993, Argulol 2004). De Jonge (2011, p. 309) remarked:

'While non-anthropocentrists may wish to hold a basic attitude in relation to environmental catastrophe, they fail to recognize that the problem of domination applies equally to fellow humans. The reason why anthropocentrism needs to be challenged is therefore more complex than one which seeks to confront the human/nature divide. It must recognize that our notions of the 'other' include counter-cultures, sub groups and members of the anthropocentric paradigm itself. And here we encounter a dilemma. If the reason why human beings are able to dominate non-human nature is because this 'nature' is not like us, we need to explain how this applies to human beings over whom others feel superior'

This view of anthropocentrism puts only certain humans at the centre of the universe, 'those who, for one reason or another, choose to dominate others' (de Jonge 2011, p. 313). Moreover, 'to reject anthropocentrism as human centredness is thus less important than recognising the tendency to place a set of given moral attitudes and beliefs at the centre of concern' (de Jonge 2011, p. 313). These considerations reflect how crucial it is to pay attention to the two 'whos' of anthropocentrism, i.e. who places whom at the centre. If not, the idea of anthropocentrism itself, including using it as a scapegoat, becomes an ideo-

logical tool to blind us (Pérez 2015) and reinforces the hegemony of some potentially problematic beliefs such as that some human beings have or can have full control over the world, including over other humans and nonhuman natural elements.

3.5. Capitalism, industrialism and consumerism emerged and caused the current global environmental crisis

The association between anthropocentrism and the capitalist economic system is a key turning point in the argumentation of many authors. Anthropocentrism is described as a system that contains values susceptible to being the sources of environmental problems, and that is strongly influenced and supported by capitalism, which encompasses exploitation, consumerism and pressures on nature (Blackburn 2013), together with Christianity and sciences (Julien 2010). Capitalism has an 'anthropocentric character' associated with 'the expansion of Western culture', 'urbanization' and 'extreme utilitarianism' (Muradian & Gómez-Baggethun 2021, p. 6). Fremaux (2019, p. 1) described the link between the environmental crisis, anthropocentrism and 'capitalist neoliberal anthropocentric economics focused on material expansionism, consumerism, individualism' (Fremaux 2019, p. 19) as follows:

'The global ecological crisis reveals these interlinked disasters caused by the core components of capitalism that include: an excessive exploitation of nature, the rise of industrialism, the self-destructive overconfidence in human-technical power, the arrogant anthropocentric mindset, and denial of ecological limits, as well as the narrow rationalism and materialism that develop within a reductionist predominant form of science'

Along this line, industrial actors ('actores industriales') are seen as anthropocentric makers that 'torture' nature, treating it as resources, using up materials for design production, and planning products for obsolescence and fast consumerism (Fiorentino 2018, p. 1).

Yet, other authors have pointed out that the problem is not anthropocentrism per se, but the modern capitalist economic system, because both humans and beings other than humans suffer from it (Shimazaki 2008, Poirier 2016): 'The original fault in the growth-driven techno-industrial system is its monstrous anthropocentrism rather than its anthropocentrism as such. The problem is not that human beings are anthropocentric, but that we are not anthropocentric enough' (Hamilton 2017, p. 43). Only some humans, not all, engage in self-interested overconsumption and reap the benefits from the harmful

impacts of human activities on the environment, which raises questions of justice among humans (Ghotbi 2014). The exclusion of environmental costs (such as pollution and resource depletion) and of the related human suffering as 'externalities' in cost-benefit calculations allows practices that are detrimental to the environment and to most humans to be perpetuated for the benefits of wealthier groups. Human beings have been removed from the central place, substituted by abstractions such as the market and capital ('mercadocentrismo', 'capitalocentrismo'), and as a result, humans are being destroyed together with nature (Hinkelammert 1994).

Using anthropocentrism as the scapegoat for the current environmental crisis amounts to 'blaming the unwitting carriers of a disease rather than the disease process itself [...] Anthropocentrism is therefore a symptom rather than a cause' (Kidner 2014, p. 477). The confusion is sustained by industrialism, which not only commodifies humanity and nature, but also 'manipulates consciousness in order to facilitate this commodification' (Kidner 2014, p. 475). Kidner (2014) further states:

'What we call 'anthropocentric' thought is therefore not really human-centred at all, but rather reflects the evolving character of this technological-economic system into which both humanity and nature are being dissolved.' (p. 469)

'The story told is therefore a fundamentally human story, controlled and directed by us, whether wisely or not. This conceals a deeper issue—the possibility, seldom admitted, that we are not in control, and that industrialism itself embodies processes and dynamics that are all the more powerful for being largely unnoticed. In turn, by failing to recognize our lack of control, we lose the possibility of exerting control; and so the material and the symbolic functions of industrialism work together to seduce us into working toward our own destruction and that of the entire natural world' (p. 476)

Human behaviour in industrialized societies only superficially appears as anthropocentric, while it is actually 'driven by forces and influences that have no concern for human well-being, and are in fact highly damaging to human welfare' (Kidner 2014, p. 474). To blame the environmental crisis on anthropocentric rhetoric is 'at best irrelevant and at worst a dangerous obfuscation' (Guha 1989, p. 2). It hides the real culprit and prevents us from 'digging deeper into more fundamental causes', such as the blind reliance on 'Adam Smith's invisible hand'⁴ to regulate global

economic markets (Yamada 2021, p. 61–62). To address the environmental crisis, in place of wasting energy fighting anthropocentrism, efforts should be directed towards 'industriocentrism' and address the harms caused to both humans and non-humans by modern globalized industry (Shoreman-Ouimet & Kopnina 2015).

3.6. We need to get rid of anthropocentrism to save nature

The proponents of this argument propose a wide array of alternative solutions to anthropocentrism. Most of them suggest shifting the focus from 'human beings' to one of the options 'what/who is excluded' by anthropocentrism, such as animals, living beings or nature. Various other '-centrism' and other concepts are presented as antonyms to 'anthropocentrism', and therefore as potential solutions (Table 2).

Exploring these theories goes beyond the scope of this paper, but the very fact that they are presented as antonyms or alternatives to anthropocentrism gives us indications regarding what/who is excluded from anthropocentrism according to its critiques. This high diversity of alternatives mirrors the high diversity of interpretations of anthropocentrism itself, for if there is no consensual definition of anthropocentrism, there cannot be any consensual alternative or antonym to it either.

This also shows that the possible replies to questions of how we should lead our lives in view of the environmental crisis are already restricted by the framing in terms of anthropocentrism/non-anthropocentrism. This '-centrism' framing reflects the presupposition that there is a place at the centre, and that we are to debate what/who has the privilege of taking this central place (Plumwood 1996). However, 'is anthropocentrism a competition?' (de Jonge 2011, p. 313). There are multiple other ways to conceptualize our relationship to the world, other humans, other living beings and species and the natural environment in ethics and in environmental ethics, that fall beyond the scope of this framing (Lohmann 1995, Paşca 2020). For example, concrete environmental dilemmas can be approached in terms of pragmatic priorities and limitations through participatory processes with the local population (Katz 1999, Iwasa & Bunrin 2002), and environmental ethics concerns can be identified and explored through self-cultivation practices and reflections regarding what it means to lead a good human life.

⁴In reference to Adam Smith's economic theory, as developed in his book titled 'The Theory of Moral Sentiments', written in 1759.

Table 2. Antonyms or solutions to anthropocentrism

Antonyms or solutions to anthropocentrism	Proposed centre to address anthropocentrism	Authors (non-exhaustive)
Theocentrism	(Re)place God(s) at the centre	Silverman (2011), Simkins (2014), Nakagawa (2017)
Ecocentrism	Ecosystems/nature (often undefined)	Durán & Villanueva Pérez (2000), Katz (2000), Ferrer Montaña (2006), Suárez et al. (2007), López et al. (2012), Calvo-Salguero et al. (2014), Epting (2017), Kopnina et al. (2018), Armstrong (2019), Zambrano (2021)
Shizenchushinshugi, Physiozentrismus	Nature	Nakagami (2006), Shimazaki (2008), Mahlke (2014)
Earth-centrism	Earth	Usubane (2014)
Biocentrism	Life	Taylor (1981), Shibuyama (2005), Claeys & Sérandour (2009), Steiner (2010), Cadavid (2012), Stoppa & Viotto (2014), Marchesini (2015), Castro (2018), Fiorentino (2018), Kopnina et al. (2018), Wienhues (2021), Hirose (2022)
Zoocentrism	Animals	Zoocentrism, Michalon (2020); anti-speciesism, Horsthemke (2009); animal liberation, De Villiers (2018); veganism, Bourg (2018)
Sentio-centrism, Pathozentrismus	Sentient beings	Caspar (2000), Díaz Abad (2019)
Animism	Natural elements, spirits, gods and living beings	Nakagami (2006), Nakajima (2019)
Anthropomorphism	Understand animals from the subjective human perspective	Burghardt (2007), Anzoátegui (2015), Aota (2019), Marcussen (2021), Caracciolo (2022), Caracciolo et al. (2022)
Human-oriented	Redefine the human at the centre	Human-oriented, Nakajima (2019); human-centeredness, Warren (2000)
Post-humanism	Go beyond human (e.g. technologies)	Wolfe (2009), Domanska (2010), Colebrook (2014), Braidotti (2019), Ferrando (2019), Williams (2019)

4. CHALLENGES OF SHIFTING AWAY FROM ANTHROPOCENTRISM

Based on the literature review, attempts to go beyond anthropocentrism face a series of difficulties that can be categorized into 2 enormous challenges: epistemology and metaethics. In other words: How do we acquire knowledge about the world without taking into account our perspective of human beings? Where do ethics, moralities and values come from? Attempts to go beyond anthropocentrism must also face the logical implications of the replies to these 2 challenges for the status of scientific knowledge and intercultural socio-political respect and tolerance. Exploring one of these two challenges, several authors have proposed to distinguish different types of anthropocentrism.

4.1. Epistemology and non-normative types of anthropocentrism

4.1.1. Perspectival anthropocentrism

A first type of anthropocentrism is perceptual (Mylius 2018), perspectival (Hayward 1997, Butcharov 2015, Marchesini 2015, Anzoátegui 2020a), biological (Suárez 2011, Mahlke 2014) or epistemological anthropocentrism (Lecaros 2008, Streim 2008), which is usually taken to be unavoidable (Wittbecker 1986, Grey 1993, Ferré 1994b, Noske 1997, Ferrer Montaña 2006, Hui 2014, Francione 2018). In the words of Ferré (1994b, p. 72):

'We have no choice but to think as humans, to take a human point of view even while we try to transcend egoism by cultivating sympathy and concern for other centres of intrinsic value. [...] But this carries no moral

penalty, since ought implies can, and we literally can do no other than see from our own point of view. In another harmless sense, we are obliged to measure values (and all else) as humans'

This perspectival anthropocentrism is inevitable, harmless and licit (Midgley 1994) because we perceive, think of and make sense of the world from our human perspective, with limited human cognitive systems. We have no disembodied way to know and make sense of the world and ourselves from any other perspective but a human one. Further, we are not making sense of the world and ourselves in a vacuum, but together with other human beings taken in geographically, historically and socio-culturally situated webs of symbols and significations (Droz 2021). Therefore, perspectival anthropocentrism does not characterize only our individual body-minds and cognitive capacities, but also any tool that we develop to construct and express our reality, such as languages (Kikai 1993, Mahlke 2014), concepts and cultures. According to Butchvarov (2015, p. 7):

'The world, of course, is also cognized by nonhuman animals, as well as, perhaps, by extraterrestrials and angels, but in order to know or understand and say even this we must rely on our cognitive capacities, if only our imagination and language'

In other words, any knowledge of the world is informed by data received by human sensory organs and processed by a human cognitive system, or even modelled and translated through human machines and tools. In this sense, anthropocentrism is a human 'ontological condition' (Hinkelammert 1994, p. 9). Kwiatkowska & Issa (1999, p. 262) state:

'We cannot understand the world and life from a perspective that is not specifically human. What for us is 'reality' is subject to our own interpretation; that is to say, it is condemned to be 'humanized'. The natural world thus becomes a cultural world, i.e. a world that exists solely and exclusively as an object of transformation'

Our ability to understand beings other than humans is thus limited by our concepts and experiences (Nagel 1974, Silverman 2011, Epting 2017), and any human understanding of the world is marked by humanity, that is, by the historical and social context in which it emerges (Laflamme 2016).

4.1.2. Descriptive anthropocentrism

This brings us to a second type of anthropocentrism, which remains open to debate regarding whether it is avoidable or not, and how: descriptive

anthropocentrism. From perspectival anthropocentrism to descriptive anthropocentrism, there is a 'move from 'I' to 'we', that is, an abandonment of subjective anthropocentrism' (Butchvarov 2015, p. 212). Notably, depending on the theory of epistemology, the distinction between these first 2 types of anthropocentrism becomes blurred, for how the 'I' makes sense of the world cannot completely be separated from the 'we', and vice versa, as shown by cognitive sciences and neuroscience research on participatory sense-making (De Jaegher & Di Paolo 2007). The distinction between perspectival and descriptive anthropocentrism is a turning point for many authors who suggest that while we should admit that we have an 'anthropocentric orientation' (Weitzenfeld & Joy 2014) or a 'human bias' (Dobson 1990, Pérez Marina 2009) and that our starting point is 'based in the anthropocentric', we should critique 'anthropocentrist worldviews' (Bodice 2011, p. 13).

Mylius (2018) distinguished several variants of descriptive anthropocentrism: by omission (when the human is artificially removed from its ecological context) or by denial of our relationship of inseparability and interdependence with the environment (Midon 2015, Almiron & Tafalla 2019); by funnelling (when what is considered as existent is understood as dependent upon human perception); by extrapolation (when we study other-than-human aspects through lenses developed by studying human beings); by anchoring (when human beings are literally taken to be the centre of the physical and geographical universe or the end product of evolution); and by separation (when some criteria uniquely present in humans are used to separate them from everything else that exists).

4.2. Metaethics and normative types of anthropocentrism

'Although epistemically and ontologically we cannot but be anthropocentric, it does not follow that we have to be morally anthropocentric' (Herrera Ibáñez 2013, p. 239). This brings us to another type of anthropocentrism, characterized as normative (Passmore 1980, Attfield 2011, Hamilton 2017, Mylius 2018), ethical (Lecaros 2008) or moral anthropocentrism (Hess 2013, Mahlke 2014).

At the heart of this type of anthropocentrism, principally in English-speaking literature, lie debates about the rhetoric of 'value'. A key distinction was proposed between 'strong' (nonhumans have values

only if they are valuable for humans) and ‘weak’ anthropocentrism (humans want to preserve the environment for the sake of humans) (Norton 1984, Hayward 1997, Koenigler & Papa 2013, Pelluchon 2014, Fremaux 2019). Weak anthropocentrism was also characterized as ‘enlightened’ by an ecologically informed concept of harm of others (Varner 1998, Julien 2010, Domanska 2011), by an enlightened self-interest (Lenart 2010, 2020) or by recognizing in nature ‘that degree of agency which is required to deliver the services that are essential for human well-being’ (Keulartz 2012, p. 48).

4.2.1. Metaethical anthropocentrism

Debates around anthropocentrism in ecology raise ‘once again the need for an objective ethics’ (Biehl 1999, p. 21), with the underlying assumption that ‘the intrinsic and objective values of natural objects and processes provide us with definite guidelines for ecologically responsible action’ (Li 1996, p. 17) (Gruen 1992). This is a matter of metaethics, namely, of what actually is and can be ethics. Most agree with a first metaethical remark that concerns the agents who are the targets of moral discourses; they are human beings since ‘(as far as we know) only humans have full capacities for agency, and only they can heed (or flout) ethical prescriptions and recommendations’ (O’Neill 1997, p. 131). Moreover, O’Neill (1997, p. 127) states:

‘Ethical reasoning of all types is anthropocentric, in that it is addressed to ethical agents, but anthropocentric starting points vary in the preference they accord the human species’

Environmental moral discourses that claim to be non-anthropocentric remain addressed to human beings, for they generally aim at convincing, guiding and restricting human behaviours towards nature. This leads to a somehow paradoxical situation, as described by Brown (1995, p. 199–200):

‘Any articulation of anthropocentrism must, however, guard against being biased by some conception of human nature which is needlessly based on some particular historical or social experience. The insistence by deep ecologists that humans transcend anthropocentrism may be a noble but impossible goal. By addressing their moral imperative only to the human community, deep ecologists are implicitly recognizing that human beings have a unique place in the cosmos; human beings alone are capable of good and evil’

Up to now, it appears that, on the one hand, we are inevitably trapped in a perceptual/perspectival anthropocentrism, and on the other hand, any moral dis-

course is addressed mainly, if not exclusively, at human agents.

A second metaethics issue that dominates the English-speaking literature is the question of ‘values’ of nature. Most authors agree that values are anthropogenic (Elliot 1994); that is, ‘all rational and moral values (that we know) are generated by human experience’ (Fremaux 2019, p. 133). This is because ‘denying the metaethical anthropocentrism of value eliminates arbitrarily humans (and our concepts) from reality’ (DeLapp 2011, p. 51). This metaethical consideration reflects the epistemological question addressed previously, but does not in any way entail that humans are the only valuable entity on earth or force the content of moral judgements to exclude other-than-human elements such as non-human animals and the natural environment.

Notably, the authors who challenge epistemological anthropocentrism and the anthropogenic account of values of nature appear to challenge sciences simultaneously (Weitzenfeld & Joy 2014) (see also call for a relational epistemology; Bird-David 1999): ‘A more interesting epistemology might be zoocentric and hence non-naturalistic and anti-scientific: values are discernible only from the point of view of animals engaged in the sort of lives animals live in our world and not from some scientific standpoint which aims to transcend these points of view’ (Crisp 1994, p. 80). In the field of animal ethics, anthropomorphism is erected by some as a potential non-anthropocentric solution to sciences (Daston 1995, Plas 2020) because ‘scientists were too anthropocentrically objective’ (Burghardt 2007, p. 137), along with practical suggestions: ‘anthropocentric prejudices must be put aside, put oneself on the same level as the animals and the rest of nature and, finally, silence one’s inner self in order to listen to what the rest of the animals have to teach about their infinitude. In this way, it will be possible to know their interests and needs, as they will be received without prejudice and allowing them to manifest themselves freely’ (Ramírez 2021, p. 55). Limits and possibilities of anthropomorphism in relation to anthropocentrism are widely discussed in the literature on animal ethics (Herrera Ibáñez 2013, Albaric 2014, Wandesforde-Smith 2016, Tranchant 2017, Karr 2018, Yin 2019, Crelier 2020). The place of science has also been fiercely defended in discussions about attempts to go beyond anthropocentrism (Ferrer Montaña 2006, Laflamme 2016, Deckers 2018).

Setting aside debates around anthropomorphism, a third metaethical remark concerns cultural pluralism (de Jonge 2011). As concepts and ways of thinking

rest on linguistic and cultural backgrounds, so do accounts of ethics (and needless to say, the difficult to translate ideas of 'value'). Several authors in the Japanese literature on anthropocentrism point out the cultural relativity of ideas and the difficulty it presents for anti-anthropocentric rhetoric (Iwasa & Bunrin 2002, Kumasaka 2011). According to Seki (1997, p. 49)

'A historical-cultural perspective shows us that there is no objective nature such as the anti-anthropocentric perspective proposes to represent, which is primarily based on a dualism. In this respect, we should understand that nature is a historical construction of a community for the very simple reason that to deny human acts or society means to deny and to exclude the human from nature'

Given that the target of moral discourses are human agents, that human agents are trapped in perspectival anthropocentrism, and that they make sense of the world through webs of sociocultural significations and symbols, it is crucial to acknowledge cultural and moral pluralism (Brennan 1992, Grey 1993, Light 1996, Rozzi 1997, Katz 1999), especially in the case of environmental moral discourses that tend to reach towards a global scope insofar as environmental problems are also global. To erase the human thinker and valuer risks erasing the cultural assumptions underlying the valuation, therefore supporting a value imperialism in disguise. Hargrove (1992, p. 190) writes:

'When 'it is seen' (passive voice) that such and such an entity is 'the appropriate object of respect', why does this not simply mean that some human decides to value this entity intrinsically—that is, by means of an act of judgement, attributes (active voice) intrinsic value to the thing in accordance with some personal or culturally derived standard? [...] Such an account of respect as automatic recognition bypassing human judgment seems to me to be implausible'

More than 'implausible', the use of the passive voice in claims about the intrinsic value of some other-than-human element is worrying insofar as it erases the 'who' behind these claims and places these claims beyond the possibility of debates and challenges by other human beings. Li (1996, p. 261) argues that:

'We need to beware that resolving value conflicts cannot be an individual endeavour; rather, we need to make a collective effort to reflexively examine the existing ethical norms and to explore the possibilities of establishing new ethical norms within our moral community'

Any account that uses the idea of (intrinsic) values of nature must address procedural questions: How are these values to be decided, by whom and why? Insofar these are normative questions, sciences cannot give the answer, although they can crucially inform

the debate. Moreover, the high diversity of cultural worldviews must be taken into account (Weston 1991, Suárez 2011), which might be difficult, as the phrasing of the question in terms of values is already imposing a cultural and linguistic frame on other sociocultural worldviews. In other words, 'non-anthropocentric moral reasoning actually derives from human-centred ethical traditions' (Li 1996, p. 260) (Gough et al. 2000, Guibourg 2007).

4.2.2. Normative anthropocentrism

Finally, what most authors seem to attack is a particular normative belief, which is that humans are the only, or the most, 'valuable beings in themselves' (Fremaux 2019, p. 153). Then, 'anthropocentrism involves acting and reasoning as if at least one of these assumptions held' (Milligan 2011, p. 226). This preferential consideration for human interests is characterized as arbitrary or exclusive (Hayward 1997). Some explain this preferential consideration as 'we have a greater affinity with those who are like us, justifying why we care more about members of our biological group' (Horta 2009, p. 3). Pragmatically, rejecting a preferential consideration for human beings could have ecofascist implications, especially in view of the aforementioned metaethical considerations. For instance, a government could rely on militarism to defend 'the organic whole of nature' and require 'individuals to sacrifice their own interests to the well-being and glory of the 'land'' (Zimmerman 2008, p. 531–532). The critique of normative anthropocentrism also raises the other pragmatic and normative question of how we set priorities when the well-being of different living beings (or elements of what/who is excluded) conflicts (Kortenkamp & Moore 2001).⁵ Specifically, how do we arbitrate when the well-being and life of a human being conflicts with the flourishing of another species, or between species, such as the case of invasive alien species (Varner 1995, Mori 2016, Crozes 2018, Cappe & Laugrand 2019)?

Whether we select exclusively humans or whether we include, gradually or not, other-than-human elements in a framework based on values, 'we human

⁵See the discussion of the criterion for gradualism in Section 3.2. For a discussion of value egalitarianism, see Brown (1995, p. 201): 'The task that a viable form of ecocentrism faces is to conceive of the value inherent in non-human entities without falling into the nihilism of radical egalitarianism'. For a discussion of the location of intrinsic value, see Palmer (2002).

evaluators select features of these entities, and generalize these features as the standard or the criterion for possessing value, or being in the class of morally considerable entities' (Katz 2000, p. 35) (Grey 1993, Kohlmann 1995, Boddice 2011). Some environmentalists engage in the quest for the existence of non-anthropocentric intrinsic values in other-than-human elements (Sarrazin & Lecomte 2014, Brucker 2015, Butchvarov 2015, Bourg 2018), because they want to use these values as a tool to limit 'anthropocentric instrumentalism' (Katz 1996, p. 75); that is, as a tool to restrain other people's behaviours and worldviews. The term 'intrinsic value' has been used as a synonym for 'noninstrumental value' (Lee 1996, Amérigo 2009), for 'moral standing' or for 'objective value' or 'to refer to the value an object has solely in virtue of its intrinsic properties' (O'Neill et al. 2008, p. 115) (Rolston 1994). But this quest might be hopeless (Grey 1993, Pérez Marina 2009), because human beings might not have the cognitive apparatus to access and understand the experiences, needs and preferences of other-than-human living elements in a way that is neutral and independent from our human ways of thinking and valuing.

However, this argument meets resistance. Some authors argue that the mistake of anthropocentrism is that it fails to see that 'the way things are in the world takes no particular account of how human beings are, or how they choose to represent them' (Bhaskar 2008, p. 154) (Fremaux 2019). Attfield (2011 p. 4–5) used the example of animal pain: 'animal pain surely had as much negative value before there were humans to declare it so or make it so as it does now; there again, health would be valuable even if it went unnoticed, or even if all valuers had fallen into a deep sleep and ceased to perform valuations'. Doing so amounts to rejecting the metaethical argument of cultural pluralism, in that 'these values are not obviously culturally relative but — on the contrary — transcultural, and co-extensive with learning active engagement and participation in the real world and for the environment' (Horsthemke 2009, p. 29). Some hold on to the particular belief that 'there is objective good to be found in the world without any relation to human preference or even human existence', which 'was here long before us and will outlive us', and that we, humans, can attribute value to other-than-human things without having access to their experience, the same way 'non-whites or women had value in and of themselves before white men recognized it' (Kopinina et al. 2018, p. 121). Yet, proponents of the objective existence of values independently from human beings face an irony; O'Neill (1992, p. 119) writes:

'While it is the case that natural entities have intrinsic value in the strongest sense of the term, i.e., in the sense of value that exists independently of human valuations, such value does not as such entail any obligations on the part of human beings. The defender of nature's intrinsic value still needs to show that such value contributes to the well-being of human agents'

Similarly, DeLapp (2011, p. 49) asked 'how could a conception of reality be non-perspectival [that is, non-anthropocentric] when the very act of conceiving of a non-perspectival conception itself constitutes a perspective?' His reply, with the words of Railton (1998, p. 63), states: 'A standpoint without any subjectivity is a standpoint with no point of view — which is to say, no standpoint at all'. The missing step here could be to make explicit an assumption anchored in our human perspective; that is, the premise that the wellbeing of current and future human generations relies on healthy environmental systems, and that therefore environmental elements must be preserved for our sake (Droz 2019). Some fervent critiques of anthropocentrism still acknowledge this, leading to seemingly self-contradictory statements such as 'Curing anthropocentrism is, therefore, the central task of a humanity that intends to survive the crisis' (Pérez 2015, p. 87). Acknowledging this step turns ecocentrism into 'a form of anthropocentrism' (Adelman 2018, p. 14) (Probyn-Rapsey 2018). It also brings us back to the human agents who are the targets of moral discourses, and to the question of the rights and obligations we have towards other-than-human elements.

4.2.3. Legal anthropocentrism

Rights and laws depend on legal systems built by humans to regulate human behaviours situated within social and geographical boundaries. The idea of rights (moral and legal) is therefore a human concept bounded to specific sociocultural contexts and interpretations (Calarco 2008, Boddice 2011). Therefore, 'as law is a human instrument, choosing this mode of protection for the environment will always involve an element of anthropocentrism' (Martel 2012, p. 57). Some authors, especially in the Spanish and Latin American literature, discuss, in relation to anthropocentrism, developments of 'Earth Jurisprudence' and the idea to attribute legal rights to nature, to animals other than humans (Nakagami 2006, Noske 2012, Magistro 2017, De Villiers 2018, Deckha 2021) and to nonhuman elements (Rozzi 1997, Kwiatkowska & Issa 1999, Anzoátegui 2015, Castro 2018, Martínez & Porcelli 2018, Díaz Abad

2019, Ojeda 2019). An avenue is to assert that human rights and sustainable development necessitate introducing an autonomous right to a healthy environment (McIntyre 2014, Zambrano 2021). Others debate the introduction of rights of nature, which are claimed to allow overcoming the anthropocentric limitations of legal systems (Boyd 2005, Borràs 2016, Lloredo Alix 2022), but that could also present some risks for democratic systems (Bégin 1992). For instance, Castro (2018) discussed the rights of nature in relation to anthropocentrism and biocentrism in the constitutions of Mexico and Ecuador. Through an analysis of the Rio Declaration, Oliveros (2015, p. 435) argued for an environmental anthropocentrism, as the guarantee of constitutional principles such as dignity can (only) be achieved through the protection of natural resources and the environment: 'There is nothing more anthropocentric than taking care of the environment in order to guarantee life and the human species'. Others suggest that (domestic) policies and legislation should focus on 'the respect and conservation of life and all those resources that serve to preserve it' (Cadavid 2012, p. 41) (Duque Escobar 2019). Finally, we are reminded that 'Rights without responsibilities cannot sustain the fabric of life for the next generation' (McIntyre 2014, p. 67).

Notably, most debates about legal anthropocentrism do not approach it as a worldview, a perspective or a normative belief, but tackle the practices and institutions in which it is embodied (Weston 1991). Weston (1991, p. 2) argued that the world is currently so 'anthropocentrized', in the sense that it is so affected and changed by human activities, that it 'shapes our most basic terms and frames of reference'; he further points out (Weston 1991, p. 3–4):

'most people, including many converts to non-anthropocentrism, would have no idea what non-anthropocentrists could possibly be talking about. Things are now so bad that vaguest extension of human ethical terms to Nature is the only way we have to make natural values seem comprehensible'

Concretely, it is hardly possible to isolate other-than-human natural elements from the impacts of human activities. Reality is now so thoroughly 'anthropocentrized' that we cannot pay attention to nature without considering human influences, and vice versa. Discourses around ideas of non-anthropocentric nature can be interpreted as 'a form of passive compromise' between the desire for wilderness and for safety and comfort based on erasing human intervention that, despite everything, remains like an 'invisible hand' behind natural parks and protected areas (Claeys & Sérandour 2009, p. 141) (Chakroun & Droz

2020). Consequently, thinking in terms of counterposing anthropocentrism and ecocentrism 'reflects a failure to comprehend the scale of the harms and changes we confront' (Adelman 2018, p. 14) (Haraway 2016). Human beings have misidentified their interests (Iwasa & Bunrin 2002), which led to the environmental crisis (Nakajima & Murashita 2005). To cope with the scale of the obligations and societal changes needed, 'a new, reconceptualised anthropocentrism is required because the only way to promote human interests is by protecting the Earth system through a more rigorous, self-conscious anthropocentrism' (Adelman 2018, p. 15). In other words, through the 'very anthropocentric idea that puts nature under human control', we are setting out the responsibilities that human beings must have regarding nature (Tanaka 2009, p. 34). In this perspective, more rather than less anthropocentrism might be required (Mathy 2015, Hamilton 2017, Yamada 2021).

5. CONCLUSIONS

To leave the word 'anthropocentrism' ambiguous allows it to be criticized from various perspectives. While the interpretations and usages of diverse perspectives do not overlap or even may conflict, the ambivalence of the concept makes possible an apparent agreement across the board to erect the concept 'anthropocentrism' as a scapegoat for the environmental crisis. To add to the confusion, 'anthropocentric' is sometimes confused with 'anthropogenic', literally, coming from humans, which qualifies something as resulting from the influence of humans on nature. To question the relevance of the idea of anthropocentrism in the environmental debates amounts to exposing oneself to unconstructive backlash, as shown by the fact that to qualify someone or an argument as 'anthropocentric' is sometimes even used as an insult. This paper aimed to scrutinize the concept and its use in the environmental debates, with the ultimate goal of clarifying the concept and the argument, and exposing them to more constructive work and dialogue.

For efficient constructive dialogue to occur, it appears to be necessary for authors critically using the word 'anthropocentrism' to specify clearly what they mean by it; namely, to answer the following questions. Who places what at the centre of what? What else is thereby excluded from this centre? The usages of 'anthropocentrism' greatly vary across languages and disciplines. In the English body of literature reviewed, the dominant understanding takes anthropocentrism to be the fact of placing human beings at the centre of

moral concerns (although who places them there remains largely undefined), at the expense of the environment and nature. The criticism of anthropocentrism in English literature tends to be associated with calls for 'intrinsic value' of nature (but who attributes this value also remains largely undefined). This reflects the main disciplines of this body of literature: environmental philosophy, and to a much smaller extent, ecofeminism and animal ethics. Law and psychology are disciplines that dominated the Spanish body of literature along with environmental philosophy and animal ethics. This echoes the usages of 'antropocentrismo' to mark a shift in legal systems to attribute rights no longer only to human beings, but also to nature, 'Madre Tierra' ('Mother Earth'), ecosystems and animals. In the French body of literature, 'anthropocentrisme' was often put in a historical perspective and contrasted with theocentrism and heliocentrism, as reflected by the dominance of disciplines such as philosophy, history and Christianity. The Japanese body of literature partially mirrors this French disciplinary distribution, and tends to take anthropocentrism as a cultural view or ideology that pushes nature, life (or living beings), gods and spirits (in contrast with animism), or God, away from the socio-political concerns. Finally, the German body of literature was largely dominated by animal ethics, and 'Anthropozentrismus' tended to be interpreted as the exclusion of animals as subjects worthy of rights.

This variety of usages reveals many underlying disagreements under the apparent (almost) unanimity of the calls to reject anthropocentrism, both regarding what exactly is the root of the problem (the exclusion of animals/nature/gods/ecosystems/etc. from the moral concerns/worldview/economic system/legal system/etc.), and the nature of the possible solutions. Different criticisms of anthropocentrism may clash in the details. For instance, an animal rights view that focusses on the wellbeing of individual animals may clash with a view that prioritizes wildlife and ecosystem health; and both might be at odds with religious calls to place God(s) at the centre of concerns and priorities. The variety of usages across languages and disciplines also reflects the difficulty to compare, generalize and universalize claims that are established within one specific disciplinary and linguistic context. Disciplines and languages could be interpreted as proxies for the diversity of worldviews, even if, obviously, the latter is far more complex than the former. It highlights the limitations of the generalized argument of anthropocentrism as the scapegoat of the environmental crisis by confronting it with this diversity of meanings and interpretations

of what it is to be human, of modes of relationships with and of conceptualizations of 'nature'. Methodologically, it exemplifies the richness of reviewing literature across different languages, and conversely the limitations of constraining one's review of literature to one dominant language or discipline, which could become a comfortable echo-chamber but fail to embrace the complexity of the debates.

Given this profusion of ambiguities and interpretations, framing the debates regarding the causes and solutions to the global environmental crisis in terms of 'anthropocentrism' versus 'non-/post-/anti-anthropocentrism' might not be the most fruitful approach. Beyond the issue of an anthropocentric point of view — avoidable or not — the core of the problem is an intertwinement of views that work together to undermine attempts to protect the environment from the greed of some humans, such as capitalism, consumerism, industrialism, etc. One of the views that underlines many understandings of anthropocentrism is the assumption of a dualism or dichotomy between humans and nature (Nimmo 2011, Martel 2012, Pelluchon 2014). This dichotomy does not resist the confrontation with cultural diversity (Lohmann 1995, Asakawa 2001). It violently cuts the interdependent and inseparable entanglements between humans and the natural world, which leads to an artificial uniformization and homogenization of both what humans consist of, and what 'the other', 'nature', 'animals', etc. consist of. This homogenization is violent on both sides of the representational dichotomy, as it negates the complex specificities of each side by defining them generically (Bell 2011). Ironically, anti-anthropocentric and anthropocentric rhetoric alike tend to rest on this problematic homogenization of what it is to be human, and on abstract linguistic constructs such as 'nature', which are unavoidably bounded to specific linguistic and cultural contexts. But humans, their cultures and nature are too complex to be artificially encapsulated in these conceptual boxes (Li 1996). What is at stake is actually not the human perspective or to place human survival as a normative end, but it is the denial of interdependence and inseparability of human existence with the environment.

Discourses featuring anthropocentrism as the scapegoat of the environmental crisis are gaining traction in global environmental governance⁶, which could

⁶For example, it was mentioned in the Millenium assessment in 2015, in several IPBES reports (e.g. IPBES regional assessments in 2018), and in a series of resolutions and reports to the General Assembly on 'Harmony with Nature' (e.g. A 74 236 E in 2019 and A 70 268 E in 2015).

present some risks in view of the ambiguities of the argument described in this article. The tendency from anti-anthropocentric rhetoric to erase the located human perspective and the related sociocultural assumptions from the discourses makes them worryingly prone to be applied 'universally' and globally without considerations for cultural pluralism. It might serve to naturalize claims, to place them beyond criticisms by other humans, and to impose them on other worldviews and cultures. Anti-anthropocentric rhetoric must beware of the odd assumption that 'the imposition of a nonanthropocentric account of the value of the rainforest on the third world would somehow not be imperialistic' (O'Neill et al. 2008, p. 181). Otherwise, they might reproduce imperialist and orientalist bias: 'Contemporary environmentalists are again coming to Africa like the European colonialists did before them, with what appears to be a new set of environmentalist ideas to save Africa and their environment' (Ikuenobe 2014, p. 19) (Donzelli 2020). Similarly, replacing human beings with another element (animals, biotic nature, etc.) at the centre simply shifts the problem; the newly excluded elements (human beings, abiotic nature, etc.) are again at risk of being valueless, or only instrumentally valued (Lee 1996). As such, post- or anti-anthropocentric frameworks must not be used as ideologies of domination, with totalitarian dangers such as the rejection of individual rights for the good of the whole ecosphere, for instance.

Beyond the socio-political issues this trend raises, it might also be environmentally counterproductive. For instance, Kumasaka (2011, p. 6) wrote that non-anthropocentric strategies to impose a view of 'Nature' are rather counterproductive in Japan, because they are 'incompatible with the view of nature that many Japanese have, and rather hinders the penetration of anti-whaling theory'. Well-intentioned non-anthropocentric frameworks inadvertently sweep under the carpet their own presuppositions, which makes it harder for other human beings to question these lenses and engage in fruitful dialogue. In this sense, attempts to radically reject anthropocentrism could be 'more insidiously anthropocentric in projecting certain values, which as a matter of fact are selected by a human, onto nonhuman beings without certain warrant for doing so' (Hayward 1997, p. 56). As described before, several authors have highlighted that the problem is not anthropocentrism per se, but arrogant anthropocentrism (Gruen 2014), grounded in the 'childish vanity' (Daston 1995, p. 38) that we are able to fully understand and control the world. This 'fantasy of omnipotence' (Anzoátegui 2020b, p. 16) or

'excessive anthropocentric confidence' (Lorimer 2020, p. 230) reflects a 'totalizing and anthropocentric belief in the power of science and technology to either destroy or manage the earth' (Lorimer 2015, p. 3). But this remark goes both ways, and attempts to go beyond anthropocentrism must beware of falling into the same fantasy of omnipotence, by assuming that we can know the world and beings other than humans independently from our human perspective.

When conducted with humility, attempts to imagine alternatives beyond anthropocentrism could be 'a salutary act of moral imagination' (Taylor 2000, p. 275). Even if, when we try to imagine what it might be like to be other-than-human beings, 'we are still looking at the world anthropocentrically — the way a human imagines that a nonhuman might look at the world' (Hargrove 1992, p. 201), as a result we might still cultivate stronger 'other-centred emotion' such as love and care (McShane 2007, p. 175) and develop more pleasurable (Dashper 2019) relationships with them. Conversely, if we need to be humble regarding the scope of our knowledge and control, we also need to remain painfully aware of the dangerousness of our destructive powers and avoid falling into an 'absolute pancosmic cold' (e.g. if we are nothing more than a grain of sand, why should we care about our behaviour, good or bad?; Argullol 2004, p. 154). We could make use of this 'sense in which it is right for us to feel that we are at the centre of our own lives' (Midgley 1994, p. 103; Tharakan 2011) to support pro-environmental behaviours. What we might need is not to go beyond our human standpoint, but to cultivate a more humane standpoint, while 'expand[ing] our sense of wellbeing' (Ito 2012, p. 12): 'Wanton destruction [...] clearly considered a vice, something to be condemned as incompatible with the humanity in us' (Ariansen 1998, p. 162). Along these lines, it might be key to inverse the burden of proof and to turn questions such as 'why conserve biodiversity' into 'why destroy biodiversity' (Sarrazin & Lecomte 2014).

Pragmatically, in place of opposing abstract ambiguous constructs such as 'humans', 'nature' and 'anthropocentrism' (de Jonge 2011), we might need a more nuanced language that 'permits compromise, flexibility, and a pluralism of values' (Katz 1999, p. 377) and that can be adapted to each situation. To make explicit what specific human traits are attacked (Salazar Ortiz & Durón 2017), identifying what 'other' is to be included into what, according to which criteria, and what the conflict-solving rules are (Light 2002) could be a first step towards clarity for authors who want to muster the argument of anthro-

pocentrism as the scapegoat for the environmental crisis. Doing so, it is crucial to understand the epistemological and cognitive limitations and diversity of human agents and valuers, and to recognize human diversity, be it intra-personal, interpersonal or intercultural. This is the first step to consider and analyse, with mutual respect, the diverse modes of representation, knowledge and relationships that individuals and communities establish with their environment (Rozzi 1997). Once these nuances are made explicit, discussions among different anti-anthropocentrism proponents, as well as with their detractors, can be facilitated. Meanings, values and actions can be created, imagined and agreed upon through participatory mechanisms and dialogue, which can provide a basis for practical guidelines targeted to individual ways of life (O'Neill 1997) or environmental policies (Katz 1999) crafted for each sociocultural context. These clarifications will also greatly benefit interdisciplinary, intercultural and multilingual exchanges. Finally, transparency regarding the reasoning underlying an argument like using anthropocentrism as the scapegoat for environmental problems is crucial to avoid one-sided imposition of an ambiguous normative view that could induce counterproductive backlash. In the end, such transparency and dialogue are central to the inclusive development and successful implementation of collective environmental actions.

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APPENDIX. Characteristics of the reviewed literature; specifically, the general distribution of languages, the date distribution, and the distribution of disciplines

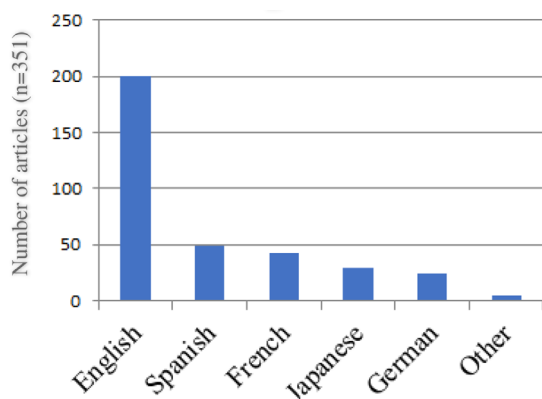


Fig. A1. General distribution of languages of the reviewed literature. The multidisciplinary review covered 351 peer-reviewed articles and books across 5 main languages: English (57%), Spanish (14%), French (12%), Japanese (9%), and German (7%). Selected articles included the word 'anthropocentrism' or 'anthropocentric' (and the translations) in their title, abstract or keywords. The category 'Other' includes 3 articles in Portuguese and in 2 in Slovene

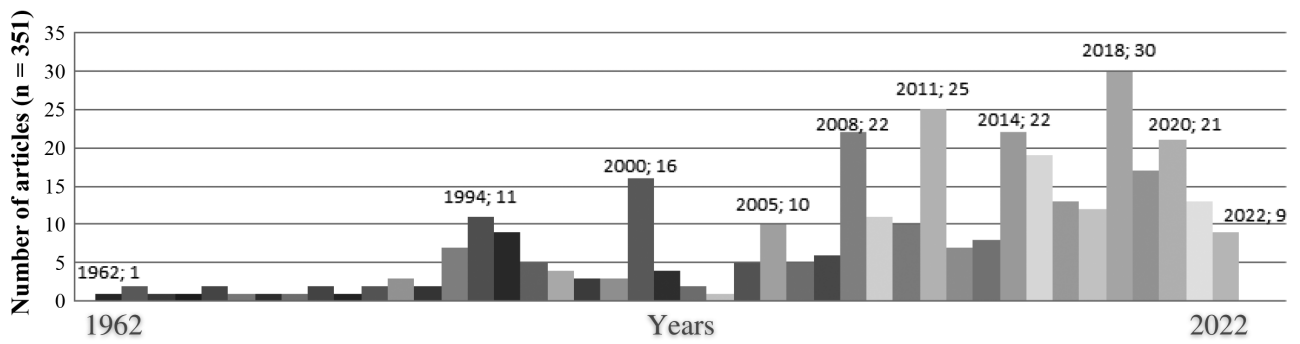


Fig. A2. Date distribution of the reviewed literature. Most works reviewed were published between 1993 and 2022

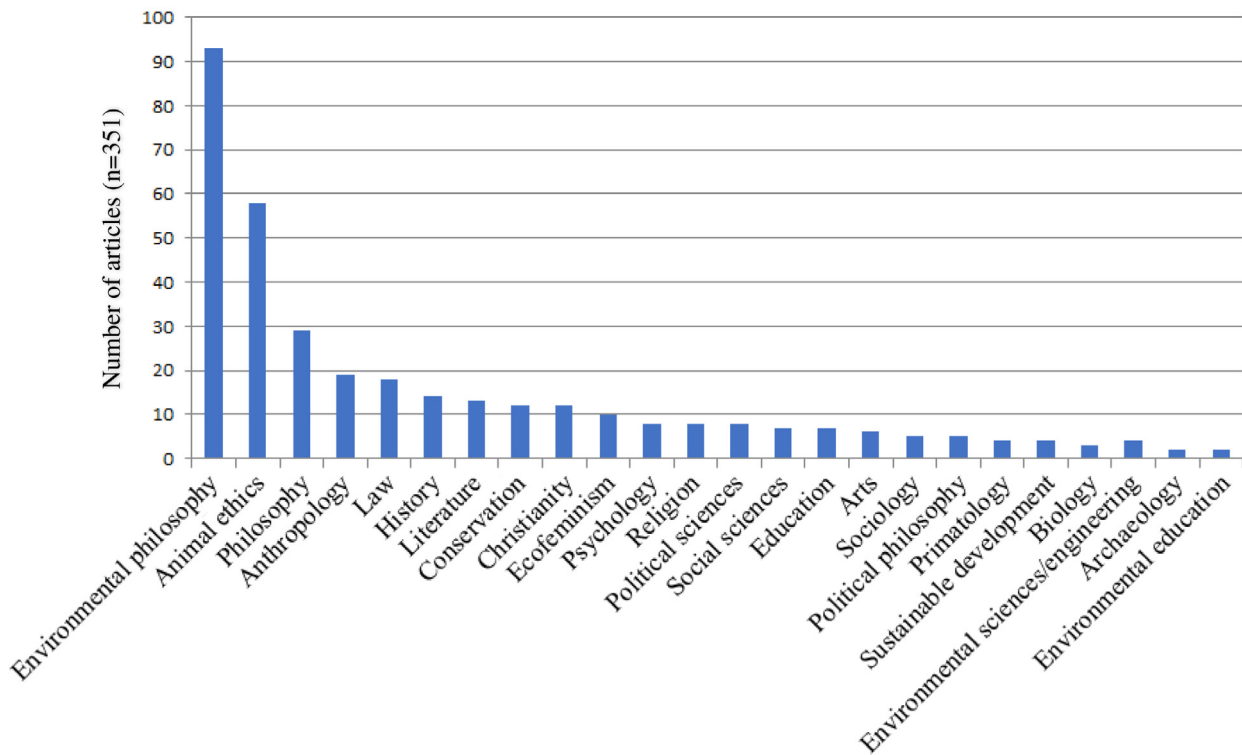


Fig. A3. General distribution of disciplines in the reviewed literature. The main disciplines represented were environmental philosophy and animal ethics, followed by philosophy, anthropology, law, history, literature, conservation, Christianity and ecofeminism. Many publications could be linked to different disciplines and were classified according to the preponderant discipline in the specific part that discussed anthropocentrism. The distribution of disciplines varied greatly across languages, which could reflect that the term 'anthropocentrism' is used in different debates depending on the language

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