



Article Redefining Sustainability: From Self-Determination to Environmental Autonomy

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Abstract: "Sustainability" is widely used by diverse organizations as the normative direction to coordinate common actions. But what should we sustain or maintain? Through philosophical reasoning and a literature review in environmental ethics, this paper explores this question and develops a working definition of "sustainability" that intends to be compatible with the global diversity of worldviews. I argue that sustainability is the maintenance of the conditions of possibility of continuation of (1) self-determining flourishing human existences. It entails (2) maintaining the natural processes of the global environment autonomous to limit the possible harmful consequences of the conflicts of distribution and domination, and (3) cultivating meaningful, diverse, and adaptable nurturing milieus. This definition encompasses the three intricate ideas of self-determination, autonomy of the global environment, and diversity. Self-determination as well as the preservation of the autonomy of global environmental processes are crucial elements to prevent the unescapable domination of some powerful groups and worldviews over others. Diversity is also a key piece of the sustainability puzzle as it provides ranges of options that make self-determination possible. This paper proposes an inclusive and flexible working definition of sustainability that is mindful of the global diversity of worldviews.

Keywords: sustainability; self-determination; environmental autonomy; environmental domination; milieu; global ethics; sustainable development; diversity; pluralism; biodiversity

1. Introduction

To ethically orientate the actions and projects that have impacts on the environment, we need to define the general direction of what outcomes are desirable, and what outcomes should be avoided. "Sustainability" is widely used and is supposed to provide such a direction in order to coordinate common actions towards it. But then, what should we sustain or maintain? The common reply, that is, "human existence", opens the wide philosophical debate of what "human existence" means¹.

In this paper, my aim is not to provide a single answer to this question, or to dive into the debates around "human existence", but to articulate a reply to the question "what should be maintained" that could be consensual globally. In other words, I draft a philosophical working definition of sustainability that can be compatible with the present globalized context of pluralism of worldviews. I go past the discourses of sustainability from the fields of social sciences [2–5] policy [6], economics [7], and business [8–10] to focus on the question "what should be maintained" from an ethical and philosophical

¹ For example, "In the narrowest sense, global sustainability means the indefinite survival of the human species across all the regions of the world. A broader sense of the meaning specifies that virtually all humans, once born, live to adulthood and that their lives have quality beyond mere biological survival. Finally the broadest sense of global sustainability includes the persistence of all components of the biosphere, even those with no apparent benefit to humanity." [1] (p. 717).

Instead of speculating³ about future generations' values and needs⁴, we can already look at the world right now and observe a high diversity of worldviews and values concerning what is good in human existence. On top of this obvious diversity in worldviews come differences in the applications of these worldviews to the real world. Even if we consensually agree on a general idea of the "good" as "sustainability", diverse interest groups and interpretations will differ regarding what concrete applications it implies [16]. This diversity is irreducible and even desirable to a certain extent, as it fosters dialogue and the construction of better solutions [17,18].

Finally, there are more answers to the question of "what matters in human life" than living human beings. Accepting the plurality of worldviews is not only a precautionary step, but it is also a necessary one if we believe that what makes human life so beautiful and precious is precisely the fact that each of us chooses how to build our life. Any choice is informed and shaped by the milieu and the multiple interactions with others [19]. But still, the individual remains an agent who thinks, imagines, chooses, and acts, in short, who leads her life⁵.

A possible way out of this high diversity of opinion regarding what matters in human life is to protect the possibility for individuals to choose themselves to lead their lives in what they judge to be a meaningful and fulfilling way within, obviously, some general ethical limitations. Interestingly, the United Nations Millennium Ecosystem Assessment, a milestone in the debates around sustainability, presents *"freedom of choice and action*, including the opportunity to achieve what an individual values doing and being" as a "precondition for achieving other components of well-being" [20] (pp. V–VI, 54). Yet, despite being recognized as both a "precondition" and as depending on the other components of well-being (security, basic material for a good life, health, and good social relations), and despite being erected as such a crucial element of human well-being, it is not problematized, defined or justified in the report. This is understandable, as a philosophical detailed justification for self-determination and freedom of choice is likely to face reluctance from some member states with diverse cultural backgrounds [21]. Still, in the context of a philosophical argumentation for sustainability, we need to justify the premise of self-determination.

For our purpose of drafting a working philosophical definition of sustainability in the present global context of pluralism of worldviews, preserving self-determination can be a precautionary step. In short, the argumentation articulating my working definition of sustainability goes:

- (1) What should be maintained is the possibility for self-determining flourishing human existences.
- (2) It requires a healthy global environment for political reasons as it neutrally provides the fulfilment of vital needs.
- (3) It requires diverse meaningful milieus, as they carry meanings beyond the human life span and codetermine human identities.

Yet, (1) often conflicts with (2) and (3) because of the problem of distribution of resources and power [22], and the dynamics of oppression and domination [23]. Plus, these dynamics

² Such as speciesism and Deep Ecology (e.g., [11]).

³ And facing one of the most famous problem of environmental ethics, namely, the fact that future generations' needs and desires are unknowable and that who the future generations will be entirely depends upon us. See, for example, [13,14].

⁴ As most environmental ethicists do as a result of the Brundtland Report definition of sustainability as: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [15].

⁵ I use the feminine as gender neutral.

of hierarchization and the diversity of systems of distribution are often central and meaningful characteristics of the social structure of a particular milieu. We will now discuss each of these propositions in turn.

2. Flourishing and Self-Determination

What are self-determining flourishing human existences? Self-determination is related to autonomy, and the latter opens an old normatively and politically charged debate. Simply put, the individual is never independent and fully autonomous from the webs of relations she is part of [24,25]. Then autonomy is relational, as it refers to self-government, and the self is relational [26]. Self-determination and autonomy, like freedom, are easier to define negatively, and Will Kymlicka gives us such a definition: "No particular task is set for us by society, and no particular cultural practice has authority that is beyond individual judgement and possible rejection" [27] (p. 50). In other words, the individual has the ability—in political theories of liberalism, this also means the right—to choose, change, and act on all aspects of oneself. From a relational perspective, this goes beyond Kymlicka's definition to the idea that "oppressive social conditions of various kinds threaten those abilities by removing one's sense of self-confidence required for effective agency" [28]. Then, to be able to self-determine what one wants to do with her own life, one needs, first and foremost, sufficient self-confidence to be able to reflect about it. Yet, self-confidence rests most of the time on other people's judgements and appreciations, and values and judgements about what is a good life are mostly borrowed from the cultural imaginary and the practices of other individuals in our community. Moreover, we even make sense of the world together with others [29]. To choose how to lead our life and engage in long-term projects, we also necessitate some degree of predictability of our surroundings, which depends on trusting information coming from others [30]. In the end, what is left of self-determination seems quite fragile.

Nevertheless, any individual is still an agent, and she influences her milieu and its practices as much as she is shaped by them. The milieu is the environment as lived subjectively by individual agents and perceived as covered by webs of sociocultural meanings and affordances [31–33]. While the agent is guided and constrained by her milieu, she is not completely determined by it. That is, from her specific situated standpoint, she reflects and chooses to engage in some practices that she negotiates with her community. Even if practices and social structures are relatively stable [34], they are still the changing result of continuous adaptive processes, including actions and decisions by numerous individuals [35]. For the individual to be able to reflect on her situation and to make relatively informed choices about her own life, some basic conditions are necessary. Ideally, she needs to enjoy a relatively stable health and to have the possibility to adapt herself to changes in her surroundings [36] (p. 144).

A minimal hedonism is a simple and consensual starting point to judge what a flourishing human existence is [37]. It is hardly debatable that minimizing pain is, a priori, a good thing. In turn, we can define "harm" as the infliction of pain to a sentient being, starting with human beings. But leading a life merely deprived of pain could hardly be characterized as flourishing⁶. The flourishing of human life necessitates meaning [39]. And if meanings are created together with other humans, inspired by the cultural imaginary [40] and shaped by the milieu, they are nonetheless subjective. In other words, the observer can hardly judge what is meaningful to the phenomenological agent. Virvidakis Stelios, a proponent of moral minimalism, writes: "At the end of the day, one might embrace skepticism about the existence of objective criteria for the correct appraisal of better or worse individual styles of life, precisely to the extent that they are unique and could be compared to artistic performances which cannot be repeated" [41] (pp. 89–90). This skepticism urges us to take the highest precaution when judging what counts as a meaningful life from the perspective of the observer. The maintenance of the

⁶ For a conceptual analysis of human flourishing (and its relation to human dignity and rights), see [38].

conditions for self-determination of what is a meaningful life for the phenomenological agent appears as a basic yet crucial precautionary step.

Then, what should be maintained and nurtured is the individual capacity to survive, thrive, and flourish without crucially depending on the "good will" of other dominant human beings [42]. Indeed, if the conditions of flourishing entirely depend on the choices and opinions of an observer agent, it places the latter in a position of strict domination that can lead to abuses and undermine self-determination and flourishing of the dependent individuals. Conflicts between what is subjectively judged as good for oneself and what is evaluated as good by the observer emerge daily. Self-harm and domestic violence are two archetype examples. On one hand, basic needs or vital needs are usually consensually agreed upon (e.g., human rights [43,44]). On the other hand, individual sacrifices of those needs for a higher end are not uncommon. Stories of sacrifices for the sake of spiritual beliefs, coherence or purpose can be found in any culture. Moreover, what is "good" for someone is ever-changing [45], so we need to preserve the possibilities for multiple adaptations to different unexpected circumstances.

Notably, Amartya Sen addresses directly the relation between self-determining flourishing individual human existences and sustainability. He suggests that formulations of definitions of sustainable development need to include "sustainable freedom" that must "encompass the preservation, and when possible expansion, of the substantive freedom and capabilities of people today 'without compromising the capability of future generations' to have similar—or more—freedom" [46] (pp. 251–252). His emphasis on individual "sustainable freedom" leads Sen to reject the idea that we should keep the global environment autonomous and strongly limit our interferences in the global environment itself includes human creations, and second that it is, actually, a human artefact and not a natural given [46]. Thus, while Sen "presupposes "agents" capable of self-determination and thus endowed with reason" [47], he stops short of arguing for the maintenance of autonomous global environmental processes.

In sum, to maintain the possibility for self-determining flourishing human existences, we need to prevent at least two types of harm affecting, first, human health, and second, the quality of life for human beings. Nothing surprising here. But what about harm affecting mainly the nonhuman natural environment? In order to justify protecting it for the sake of maintaining the possibility for flourishing human existences, we still need some justifications. Indeed, the destruction of elements of the nonhuman natural environment that does not directly affect the health or the quality of life of human beings could be value-free. Then, on what grounds do we value the natural environment on which we do not obviously depend directly?

3. Maintaining the Global Environment Autonomous

First and foremost, valuing requires valuers, so nothing can be said to be good "out of relation to human existence, or at least to some consciousness or feeling" [48]. That is, I do not argue here that nature has value *by itself*, intrinsically and regardless of our human standpoint. As the concept of milieu shows, we are always situated and embodied in our subjective human existence, and to defend intrinsic values that do not depend on human beings' valuation would dangerously deny our limited and largely ignorant standpoint. In Robert Goodin's words: "Good of nature can only be realized through interactions with human consciousness is not to say that nature is « good » merely because it is, in some crassly material way or even in some deeply spiritual way either, « good for » the human beings involved" [49] (p. 45). With that being said, to argue for the attribution of intrinsic values to some elements of our milieu by human communities and groups is obviously not ruled out and can completely fit in *particular* worldviews. All that is denied is the objective existence of such values outside of human perspective.

One might doubt how maintaining the global environment—that is, valuing it enough to judge it worth maintaining—contributes to the flourishing of individual human lives. Valuing objects "does not easily translate into harms and benefits to the valuer" [50] (p. 11). On the contrary, when it comes

to meanings, it is not uncommon to value a system or an element of our milieu that de facto contributes to harming us. From a certain standpoint, such is the case with private cars and air pollution, or unhealthy yet tasty food.

Thus, even if most of us agree that human existence is somehow valuable, some would disagree that preserving the natural environment is a condition for the flourishing of human existence. They would argue that the progress of technology will surely allow us to develop substitutes for most of what we originally received from the environment, and to build human-made technological systems to provide us with clean air and water⁷ [52]. Some would even argue that with climate change, humans are already manipulating the whole natural system of the planet, and that it is just a matter of learning how to control it to maximize human benefits. By using substitutes and skillfully manipulating the provisioning systems, we could live at least as well as we did when we fulfilled most of our needs by taking resources directly from the natural environment without making many human changes to them⁸. In other words, such a completely human-controlled world would not be any less desirable than today's world. Some would even argue that such a world would instead be much safer than a world of wilderness.

This kind of argumentation often emerges as a result of the underlying dualism between nature and humanity that oppose them both. But even if we acknowledge that humans are part of nature and that interactions between humans and their environment are natural by definition, then why should we worry about making important changes in our natural environment? Species have always disappeared, and now, human beings are the dominant species and eradicate other "weaker" species, but why should that bother us, if that is precisely the normal evolutionary course of natural phenomena?

In other words, Alan Holland points out to the "paradox" of natural capital, namely, that "the realization of its potential is at one and the same time the limitation of its potential" [54] (p. 64). He notes that natural capital can be said to contribute to welfare directly by virtue of its characteristics, by being beautiful, interesting, or symbolic, as constituting a special sphere or place of operation, and for its function (for example, as a sink). But most of the time, the natural capital contributes to welfare indirectly by being transformed to provide material for production and consumption. Then, the very usage of the capital by human beings is often destroying or at least affecting the capital itself, because none of it can be "used" without intervention. Eating food is the most obvious example, but tourism for environmental wonders follows the same scenario. Flocks of tourists rushing to admire a specific natural phenomenon in a particular ecosystem can lead to the destruction of the latter. But again, why should we care about it? The "consumption" of the natural capital by humans as the dominating species might be completely "natural".

Four replies can be presented to this argumentation. The first one comes from the concept of milieu. Individuals are continuously influenced by and influencing their milieu, and a large part of what they care about in the milieu is closely entangled with the natural environment. It might be possible to imagine a totally artificial milieu, a milieu with no access to any potentially uncontrollable natural elements. Still, insofar as where we are standing now, such a milieu would still be supported by some natural processes, even if those lie beyond the knowledge of the individual. Moreover, the wild natural environment is highly likely to still be part of the cultural imaginary of the individual. To imagine a world or lifestyle without these two major links with the natural environment (physically supporting human lives and meaningfully inspiring human imaginations) would bring us too far from

⁷ Many environmental ethicists criticize this argument, such as Kothari: "One can identify four primary criteria for sustainable development when it is conceived as an ethical ideal: a holistic view of development; equity based on the autonomy and self-reliance of diverse entities instead of on a structure of dependence founded on aid and transfer of technology with a view to 'catching up'; an emphasis on participation; and an accent on the importance of local conditions and the value of diversity." [51] (p. 34).

⁸ For a critical analysis of this position, also see [53].

the present and be irrelevant to our discussion, as our goal here is to draw an ethical definition of sustainability for ourselves rooted in our current existence.

Defending the protection of the natural environment because it is meaningful to us is frequent in environmental ethics. For example, Goodin argued that what we value are coherence and purpose, and these emerge from situating our life in a larger context such as the natural environment: "If what we value about nature is that it allows us to see our own lives in some larger context, then we need not demand that that nature be *literally* untouched by human hands. We need demand merely that it has been touched only *lightly*—or if you prefer, *lovingly*—by them" [49] (p. 37). Dale Jamieson agrees that "context is very important to the character of our experience" [50] (p. 158). According to him, like we value authenticity and rarity, "we value what is natural because we value nature's autonomy" (p. 166). Nevertheless, a limitation to this argument is that what makes the flourishing of a human life is highly subjective and strongly determined by the meanings of the local milieu. Therefore, coherence and purpose might not be necessarily valuable for an individual life in every milieu. Claiming that the value of the environment precisely comes from the fact that it provides us with a larger context for our experience seems to be situated already in a particular worldview.

The second reply draws from the limitedness of our capacities and time to act and think and of our irreducible ignorance, given the fact that even if all the knowledge about our supporting natural system were available, no individual human being could master it enough to make informed decisions. To have the capacity to control the whole system would then put us as individuals in an extremely precarious situation, as we would have the responsibility not to do any harm. The weight of this overwhelming tremendous responsibility is highly likely to paralyze our moral agency and to push us into developing strategies to avoid taking responsibility [55]. Then, leaving environmental systems autonomous appears to be the easiest and safest option, as we would not risk making terrible mistakes in their management or suffocate ourselves with responsibility. In other words, we need the environment to be autonomous, because then we do not have to worry about it as it lies beyond the scope of our agency and responsibility [56].

The third reply has to do with the distribution of powers and knowledge in such a hypothetical world in which humans (as a group) would be in control of the parameters of their environment. If human beings were in complete control of their provisioning surroundings, that is, that these could not sustain themselves without human intervention, then this state of affairs would give tremendous power to the individuals who are in charge and have the knowledge of managing such huge machinery, not only on other species, but also on other human beings. There would be no escape for individual humans to go away and lead their own lives independently of a social system, which could be exploitative. The possibility for individual human beings and small groups to be autonomous and independent, allowing them to freely (that is, not constrained by other individuals) lead their lives rests on the environment providing them with vital conditions that do not depend on human-made and controlled mechanisms. A quick look at the history of humanity tells us that oppressive systems are recurrent, and crimes against humanity committed in the contemporary era do not convince us of the contrary.

Fourth, we can value the environment as irreplaceable, not because technology could not clone and artificially reproduce similar elements, but precisely because natural environmental elements came into being without human intervention. Goodin writes: "at least some things produced by natural forces are irreplaceable, precisely because they have a history of having been produced by those natural forces. The things might be replicated artificially. But history cannot be so replicated" [49] (p. 72). The currently dominant paradigm of ecology supports such a claim. Indeed, ecological systems are understood as nonlinear, context-sensitive, and feeding on variability "complex adaptive systems", or "CAS". Graham Harris describes them as follows: "Chaotic solutions do not converge to equilibrium; on the contrary, they diverge continuously so that very small changes (often indeterminably small changes) in the initial conditions lead to quite different outcomes. Such systems are irreversible: you cannot wind the clock backwards after a period of divergence" [57] (p. 54). In summary, be it natural processes or social processes, history is irreversible. By virtue of this historical irreversibility, any element of the environment can be regarded as precious, as they are irreplaceable.

Such a worldview where dynamic changes are the rule and not the exception turns upside down the classical worldview of stability and equilibrium. There is no "normal" or "original" equilibrium state of nature towards which to aim restoration efforts and orient our actions and policies. Then, in such a worldview of dynamic changes, what should we maintain in the environment? We have seen a first family of replies arguing that we must maintain the autonomy of (at least some) environmental processes. First, the natural environment should be maintained because it carries meaning, and diverse natural elements provide imagination with more diverse meanings. Second, the global environment should be maintained as an autonomous safety net for multiple ways of life, including other species, that is, a bigger context of ourselves and a limit to our agency and responsibility. Third, it should be maintained as a self-sustaining neutral provider of resources regardless of the other human beings' judgements (for example, human conflicts over land and water and dynamics of domination). Fourth, it should be maintained by virtue of its historical irreplaceability.

The first reply, namely, to keep the natural environment in its diversity as a carrier of meanings indicates a slightly different argumentation than the maintenance of environmental autonomy. What we should maintain is not only the environment as a chemicophysical receptacle, but also the diverse meanings built historically and intersubjective and imprinted on the milieu [58]. This brings us to the last proposition of my working definition of sustainability, namely, that the maintenance of flourishing self-determining human existence requires meaningful milieus, as they carry meanings beyond the individual life span and codetermine human identities.

4. Diverse and Adaptable Milieus

An obvious characteristic of milieus from a global perspective is their diversity, be it natural, cultural, linguistic, etc. This diversity is seen both as a value towards which we should design our actions—we should "protect" diversity, and as the de facto result of respecting other human beings' and communities' self-determination—we should "respect" others in their diversity. If we accept the idea that what should be maintained is the possibility for self-determining flourishing human existences, then diversity amounts to providing multiple varied options from which the individual (or the community) could pick up some and lead her life flourishingly. The protection of diversity is tantamount to the development of better conditions for self-determination. And let us remember that self-determination is desirable because we embraced precautionary pluralism, and we rejected the existence of one single true worldview to be imposed on the world unequivocally. Then, preserving and cultivating diversity means maintaining a diversity of options from which we can choose and compose our worldviews. In other words, to have access to this diversity of options gives individuals the possibility to exercise their agency, which is an essential part of what it is to be human. Thus, diversity is not only the result of respecting other currently living human beings' self-determining agency, but it is also desirable to be maintained to allow future generations to exercise themselves self-determining agency.

We can hear discourses in the media and politics drawing colorful pictures of biodiversity, ecological diversity, cultural diversity, etc. [59]. Yet, when we look closer at it, the concept of "diversity" is poorly defined. The concept of diversity has been discussed for almost a century in ecology, where debates regarding how to measure ecological diversity are still raging [60] (p. 128). Some argue that the number of different types of entities in a system, namely, richness, is a measure of diversity. But then, if there are thirty types of trees in my forest, but the large majority of trees are pine trees, and there are only a few individuals of other species, diversity could be judged to be lower than if there is less disparity in the relative abundances of individuals. Others might say that rarity is a measure for diversity, which could be interpreted as the presence of rarer entities, or of entities that are more restricted in geographical range, or even of entities that have unique features. These questions take an even more complex dimension when we realize that depending on where we set the borders of the area to assess, the picture changes dramatically.

The political debates around conservation have urged scientists to come up with biodiversity measures that are quantifiable and precise, to be able to compare and prioritize between different usages of the land (for habitation, agriculture, etc.). This need for clear communicable and comparable values conflicts with the complex reality of the field. Estimations of biodiversity, like estimations of pollution, are calculated based on sampling methods that are not anodyne insofar as their scales and sampling grids influence the results, as well as the real-life limitations regarding exactly where and when the samples are taken. Very different conclusions can be drafted from the same set of data, depending on the scale and the indicators that are chosen for the analysis. On top of this come political usages and choices regarding sciences. Instrumentalization of knowledge is inevitable, especially for environmental sciences, as environmental assessments are at the heart of conflicts of interests. "Who holds the power to simplify complexity" holds then a tremendous yet often invisible and ignored power, as simplification is an essential step of communication, which is necessary to decision-making [61] (p. 164). Moreover, the evaluation of our ignorance and of the opinions about how to deal with uncertainties differs greatly. Harris describes this phenomenon as "epistemological relativism: people do have other values and beliefs—and views about the treatments and weights to be placed on the uncertainties—which clash with those of the science community" [57] (p. 238).

Whatever the precise meaning and evaluation criteria for biodiversity, there is a wide consensus on the importance of its protection. The ground for this consensus is not the intrinsic value of (humanly designed) species or similar arguments as those made previously for the protection of the global environment. Instead, it is the pragmatic idea that "a species, or other element of biodiversity, has option value when its continued existence retains the possibility of future uses and benefits" [62]. The possibility that biodiversity elements might contribute to human welfare or even be necessary for human survival in the future seems enough to justify present protection of those potential assets. The relevance of this claim is as obscure and uncertain as the basis of what biodiversity is, but it remains a compelling argument, precisely because the limitedness of our current knowledge urges us to adopt a highly precautionary posture.

Assessments and discussions about the concept of diversity related exclusively to species and environmental elements are already highly complex and politically charged. But species and ecosystems cannot complain about the choices made by the scientific community to assess and analyze them. When it comes to cultural and linguistic diversity, one can imagine the situation becomes even more complex. Nevertheless, discourses advocating the protection of cultural diversity became ubiquitous and popularized by the United Nations Educational, Scientific, and Cultural Organization these last decades [63]. Among these discourses, Sakar distinguishes two lines of argumentation justifying the valuation of diversity. First, cultural and linguistic diversity might geographically coincide or even be causally linked to biodiversity. The argument goes: "even if this geographical coincidence is no more than a result of historical contingency, the protection of cultural diversity would contribute to the protection of biodiversity" [60] (p. 134). Indeed, one can imagine that different techniques of usage of the land and dependence on different crops will inevitably contribute to supporting different types of ecosystems. In this first argument, the protection of cultural diversity is justified by its instrumental effect on the protection of biodiversity.

The second argument claims that cultural diversity can be valued in itself because of its "transformational power" or "adaptational strength" [64]. The assumption behind this argument is that more culturally diverse communities and societies will be more resilient to changes in their surroundings because they will have more options from which to develop strategies and techniques to adapt themselves. For example, this argument often emerges in discussions about the key role of diverse indigenous and traditional knowledge in adaptation to climate change⁹. Cultural diversity

⁹ See, for example, [65]. For more, see also the work of the Local Communities and Indigenous People Platform (LCIPP) within the United Nations Framework Convention on Climate Change (unfccc.int/10475) and the work of the Technical

provides a variety of future options open for the human species and individual self-determination. This brings us back to our first proposition regarding maintaining the conditions for self-determining flourishing human lives. Furthermore, a decrease in cultural or linguistic diversity would decrease the "common pool of knowledge" to respond to environmental challenges. Moreover, interactions between different cultures might generate more reliable knowledge than otherwise. In other words, more diverse milieus (both intradiverse and interdiverse) would increase human adaptability and then improve the environmental survivability of the human species. At the level of societies and communities, adaptability translates into social resilience to brutal sociopolitical and environmental changes.

The idea that adaptability is a necessary condition for our survival is almost tautological. The above argument that diversity fosters better adaptability echoes the adage not to "put all your eggs in the same one basket". The underlying intuition says that higher diversity leads to better adaptability and better chances of survival and flourishing. This assumption also underlines my previous argument for the need of the environment as a neutral nonpartisan provider. We need an autonomous environment to avoid the homogenization of cultural diversity into some dominant worldviews and oppressive social structures, because this diversity of lifestyles is a safety net of possibilities and a consequence of respecting the autonomy of other individuals, groups, and beings.

But this line of argument soon encounters an important obstacle, which is that the protection of diversity of lifestyles might conflict with some other intuitions regarding self-determination, namely the idea to give "equal" opportunity to individuals to freely design their own life. Putting aside egalitarianism and questions of distributive justice, we still face the problem that in most milieus, social roles are closely linked with hierarchical positions of domination and power. Social roles and positions in the social structure and the milieu the individual agent belongs to are crucial components of one's identity. Identities are relationally built, and domination is a very common type of relation between human beings. Most of these relations come with the circumstances the agent is born into or living in. They constrain and limit the self-determination importantly and can even produce harm. But at the same time, they give meaning to one's position, role, and even existence in the milieu. Indeed, many meanings carried by the milieu are intertwined with justifications for domination and social groups that share highly different lifestyles and develop different subcultures. In short, some level of inequality produces differences and preserves diversity of meaning, while simultaneously restricting the range of individual self-determination.

Then, in order to foster self-determining flourishing individual lives, it is not sufficient that milieus carry diverse and adaptable meanings and practices, but it is also essential to broaden the access to these and to tools to negotiate one's own position within the webs of relations. Another helping point is that milieus are not fixed in time. They are changing and adapting to circumstances. This adaptation is crucial for sustainability. Then, some meanings and practices will have to be abandoned while other new meanings and practices will need to be developed. This dynamic process of critical evaluation and changes of meanings and practices of the milieu is continuously ongoing. We can then suppose that equipping individuals with critical tools to understand their situation and constraints, evaluate them, and choose how they want to lead their life from the range of options available to them is a key. Yet, utmost precaution must be taken about this educational claim, as ways of reasoning and making sense of the world are themselves diverse and situated. The attempt to educate everyone according to what one dominant community judges to be critical thinking might lead again to the imposition of this dominant worldview and the homogenization of others' milieus.

All in all, sustainability is a precautionary multilevel dynamic process which continuously redefines its objects. That is why the answer to the question "what should we maintain" is composed

Support Unit (TSU) on Indigenous and Local Knowledge (ILK) of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) (ipbes.net/deliverables/1c-ilk).

of "possibilities". Peter Jacques gives the following definition: "Sustainability is the imperfect process

of building and maintaining global social systems of capable, accountable, adaptive, just, and free people who can make important decisions and trade-offs with foresight and prudence and who foster the robust, self-organizing, dynamic, and complex ecosystems around the world for now and future generations" [66] (p. 19). Without buying his assumptions about "global" social systems of "just and free" people, his definition still gathers the most important elements we discussed until now, namely, the fact that sustainability is the process of maintaining self-organizing and robust ecosystems according to the precautionary principle. In addition to these elements, the concept of milieu can be used as an articulation between different scales of analysis, between diverse spheres of knowledge, and between overlapping scales of natural patterns and processes. Each of these scales is usually handled by researchers and policy-makers in partial isolation, but all of them are combined in the local milieu.

Not only the environmental processes and the relational individuals themselves are continuously changing and dynamic, but also the milieus. The dynamicity of the concept of milieu does not only fit the latest views of the worlds as imbricated nonlinear systems, but it also justifies sustainable changes. Indeed, the milieu is not a fixed image grounded on local lifestyles and values from the past. Instead, it is an ever-changing web of meanings that are adapted by the currently living individuals to better fit their needs and values. Then, today, if it is necessary and urgent to renounce to some seemingly old traditions and replace them with more sustainable practices, it should not be considered as a regrettable loss or a threat to a supposedly stable harmony, but as expressions of the ongoing cyclic relationships between living individuals and their long-lasting milieus. This echoes claims about "cultures of sustainability", which, "as soon as they crystallize into fixed states, closing their boundaries and fixing their borders, they risk losing their elasticity and porosity" that precisely gives them the power to adapt and survive changes [67] (p. 1100).

Finally, my working definition of sustainability might fit Fabian Scholtes' criteria to mitigate the problem of environmental domination [68]. Scholtes highlights the fact that our current idea of what should be sustained restricts and shapes other people's options and so exerts domination over others via the natural environment (p. 290). To mitigate this problem, he argues that sustainability concepts should meet three criteria. First, the "rationale for choices we make about nature should be explicit and accessible" (p. 294). While I did not directly address decision-making processes because of the limited scope of this paper, my account is indeed compatible with public deliberation and fosters dialogue between diverse worldviews. Moreover, it places changes in worldviews and milieus at the center of the idea of sustainability as a dynamic ongoing process never exempt from reconsideration and discussions. As a second criterion, Scholes suggests that "reasons for making choices about nature should relate to a valuational reference that is acceptable to those affected", including future generations (p. 295). As my definition is formulated in terms of "conditions of possibility of continuation of self-determining" existences and entails the accessibility of diverse meanings and values and the enjoyment of an autonomous global environment (without depending on other dominant human beings), it is reasonable to believe that it would be compatible not only with different worldviews held by currently living people, but also with the diverse worldviews of future generations. Third, Scholtes warns that concepts of sustainability should be "aware and open to fundamentally different ideas of the good" (p. 296). While my account is precisely drafted to be compatible with the current global pluralism of worldviews (and so meets Scholtes' third criterion to a certain extent), it still advocates a particular idea of sustainability that remains opened to debates. Indeed, I did not aim here at offering a final and definitive definition of sustainability. Instead, my goal was to propose an inclusive and flexible working definition of sustainability that is mindful of the global diversity of worldviews and open to further debates and improvements.

5. Conclusions

In sum, here is my working definition of sustainability: "Sustainability is the maintenance of the conditions of possibility of continuation of (1) self-determining flourishing human existences. It entails

(2) maintaining the natural processes of the global environment autonomous to limit the possible harmful consequences of the conflicts of distribution and domination, and (3) cultivating meaningful, diverse, and adaptable nurturing milieus."

To put into practice this vision of sustainability, we need to minimize all types of harm—not only harm affecting human health and human quality of life, but also harm affecting the nonhuman natural environment. Preserving an autonomous global natural environment is crucial especially because it can neutrally provide for the fulfilment of vital needs of human communities without forcing them to rely on high technology whose development, knowledge, and access are likely to be restricted to dominant groups. Nevertheless, the protection of the autonomy of global environmental systems does not protect us from other conflicts between and within human groups. These conflicts are even more complex as patterns of distribution of resources and power, and dynamics of oppression and domination are often central and meaningful characteristics of the social structure of a particular milieu. Finally, the realization of what appears to the individual agent as a flourishing life might directly conflict with the preservation of the autonomous environment and with the maintenance of meaningful milieus, especially if this image of a flourishing life rests on relational dynamics of domination and power over other human beings. Last but not least, the maintenance of the autonomy of the global environment and of the diversity of milieus sets normative limitations to self-determination. The individual process of self-determination must take place within a necessary normative safeguard, that is, the individual must refrain from contributing to depleting or destroying the global environmental systems to the point where these systems cannot independently provide healthy living conditions to current and future human beings. Because of that, it translates into self-limitation and refocuses our own reflections on how we want to live and what do we want to leave to others.

The working definition of sustainability I propose clarifies the links between scales of analysis that are often left ambiguous, namely, the scale of the individual, the scale of the milieu and community, and the scale of the globe. It also sheds light on the intricate and interdependent relations between self-determination, diversity, and environmental autonomy, three concepts that are admittedly still ambivalent despite being widely used in discourses around sustainability. By insisting on the importance of maintaining global environmental processes autonomous to prevent potentially abusive domination, I distance myself from authors who accept reliance on technological substitutes as within the realm of sustainable development [69]. By including the transmission of diversity of meanings within the definition of sustainability, I also go beyond approaches focusing exclusively on capital or monetary valuation [70,71]. And by focusing on individual self-determination, I avoid the threat of ecofascism [72] and the imposition of some restrictive understanding of sustainability by dominant groups over others.

Thanks to the centrality of the three key elements (environmental autonomy, individual self-determination, and diverse meaningful milieus), this flexible definition of sustainability mitigates the problem of environmental domination. Far from being definitive, it aims at orienting the debates to be more inclusive and mindful of the global diversity of worldviews.

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