



Sufficiency, Nature, and the Future

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Sufficiency principles require that *each* person has *enough*. This article explores two such principles, located towards opposing ends of the political spectrum. *Conservative Sufficiency* affirms a permission to transform natural resources to benefit oneself or other people, provided that doing so is compatible with present and future people all having enough, but denies the relevance of additional distributive requirements, like Equality or Priority. By contrast, according to *Conservationist Sufficiency*, what everybody having enough undermines is not Equality and Priority, but our justification for further environmental damage, including damage harmful to future humans and nonhumans. Defending the Conservationist over the Conservative interpretation, this article explains its appeal not only for those who care about animals and the environment, but also for those who share other concerns present in the thought of J. S. Mill and John Rawls.



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“A man that ... will strive to retain those things which to him are superfluous, and to others necessary ... is guilty of the war that thereupon is to follow”
Thomas Hobbes, *Leviathan* (1651), ch. 15

“We can never have enough of Nature ... We need to witness our own limits transgressed, and some life pasturing freely where we never wander”
Henry David Thoreau, “Spring,” *Walden* (1854)

Within recent political philosophy, at least four distinct principles play a prominent role in explaining what makes one distribution preferable to another. For illustration, consider several justifications for feeding one starving stranger rather than another stranger who is merely peckish. *Utility* requires doing so if this increases the aggregate sum of benefits. *Priority* accords greater moral value to benefiting individuals the worse off they are. *Equality* compares both strangers and requires us to reduce the gap between them. Finally, *Sufficiency* requires us to aid the stranger who is further from having enough, since our claims weaken as we approach that satiation point. While Equality is always comparative and Priority has comparative variants,¹ the focus of this article, Sufficiency, is always noncomparative.

One widely discussed version of Sufficiency affirms both a *Positive Thesis* demanding that each individual has enough to avoid various forms of absolute deprivation, and a *Negative Thesis* that denies the relevance of additional distributive requirements, including Equality and Priority.² When applied *within* generations, this version of Sufficiency faces decisive objections.³ Nevertheless, when applied *across* generations, a context where other principles face difficulties, Sufficiency remains prominent in

¹ Persson 2008; Hirose 2009.

² Casal 2007, pp. 297–304.

³ E.g. Goodin 1987; Arneson 2005; Casal 2007.

discussions of intergenerational justice, environmental change, and sustainability.⁴ Exploring this new role for Sufficiency, this article compares two distinct variants.

One familiar variant, which we may call *Conservative Sufficiency*, or *Conservatism* for short, claims that “what matters is that (present and future) people have enough” (henceforth, Universal Sufficiency). Conservatism permits “development that meets the needs of the present without compromising the ability of future generations to meet their needs.”⁵ Compared to *laissez-faire*, Conservatism represents great moral progress, even if it fails to recognize additional requirements like Equality or Priority, or any duty to leave enough for other animals.

A less familiar variant, here termed *Conservationist Sufficiency*, or *Conservationism*, shares the Conservative commitment to the Positive Thesis but captures better the concerns of many environmentalists and “animalists.”⁶ Conservationism does so by replacing the Conservative Negative Thesis that the achievement of Universal Sufficiency undermines the justification for Equality and Priority with the thesis that its achievement undermines the case for further environmental damage unnecessary for eliminating *human* deprivation. The resulting view claims that those of us who have much more than enough should not merely leave enough for other humans, as Conservatives emphasize. In addition, Conservationists argue that once everyone has enough, we no longer need to cause further climate change, pollution, and depletion, or the suffering and extinction of other species, and so forfeit the most plausible justification for further harm. Both interpretations of Sufficiency’s role could form the basis of a personal ethos,⁷ or a criterion for assessing social institutions.⁸

⁴ Rawls 1999a, pp. 111–21, 251–67; Page 2007a; Gosseries and Meyer 2009; Philips 2016; Meyer 2018; Gosseries 2023.

⁵ Brundtland’s WCED 1987, p. 27; Pinchot 1910, p. 80, cited in Howarth 2007, p. 656. Sen (2014) claims that “the idea of sustainable development can be broadened from the formulations proposed by Brundtland and Solow to encompass the preservation and expansion of the substantive freedoms and capabilities of people today without compromising the capability of future generations to have similar or more freedoms.” As Sen notes, this view is associated with Robert Solow, John Hartwick, and other advocates of “weak sustainability,” who deem nature a fungible production factor that can be substituted by manufactured resources to satisfy human needs.

⁶ In Romance languages, this is the standard term for referring to the growing number of people who argue that animals have interests that it is important that we, and our laws, respect, rather than to some philosophers that hold certain views on personal identity (see Snowdon 2014). So here “animalism” is political, not metaphysical.

⁷ Like Rabhi 2020.

⁸ Like Princen 2005 and Schneidewind and Zahrnt 2016.

This article's aim is not to criticize specific authors, but to explore how Sufficiency should be refined when concerns additional to meeting human needs arise. While other articles address the difficulties that Sufficiency faces *intra*-generationally, when unaccompanied by supplementary *distributive* requirements like Equality,⁹ this article aims to address fresh difficulties that emerge *inter*-generationally, when the Positive Thesis is unaccompanied by additional *environmental* constraints.

The focus on Sufficiency principles does not imply that other intergenerational principles are unassailable. On the contrary, as Conservatives emphasize, the appeal of Sufficiency derives partly from the difficulties that beset other principles when extended intergenerationally.

We have, however, several independent reasons to focus on Sufficiency principles rather than on those other principles. First, some version of the Positive Thesis is likely to remain a plausible principle of intergenerational justice, whatever other principles one accepts. Avoiding deprivation is an urgent political goal and perhaps the only one that many environmentalists accept as justifying environmental destruction, or that many animalists accept as justifying harm to animals. Other considerations, like inequality reduction or utility maximization, do not offer an equally compelling justification.¹⁰ Another reason to focus on Sufficiency principles is that their satiable character offers advantages when addressing problems like that of the growing number of humans and decreasing number of other animals.¹¹ One final reason for focusing on Sufficiency principles is that, depending on how they are interpreted, they have widely divergent environmental implications, and so offer great untapped potential.

The article begins by clarifying the Positive Thesis that both Conservatism and Conservationism share. Turning to the Negative Thesis, Section II discusses Conservatism and Section III discusses Conservationism, focusing on distribution, reproduction, and conservation. Section IV then adds very different arguments for Conservationism, by explaining its appeal from the perspectives of the two greatest liberal political philosophers of the last two centuries, J. S. Mill and John Rawls, whose neglected views on the matter are interesting in their own right, and particularly relevant to the discussion at hand. Each offers his own distinctive arguments, wonderfully

⁹ E.g. Goodin 1987; Arneson 2005; Casal 2007.

¹⁰ E.g. Herman Daly, who advocated strong sustainability, arguing that manufactured capital and nature are complementary rather than substitutable, wrote: "The basic needs of the present should always take precedence over the basic needs of the future but the basic needs of the future should take precedence over the extravagant luxury of the present" (Daly 1996, p. 36).

¹¹ See Section III. B. For very different accounts of the role of thresholds in population ethics, see Huseby 2012; Bossert, Cato and Kamaga 2022.

exemplifying the perfectionist and the anti-perfectionist versions, and the extreme and the moderate versions of Conservationism. Section V, finally, rebuts two objections to Conservationism, including one that arises when current and future needs cannot be met jointly. The Conclusion sums up why not only Mill and Rawls, and not only environmentalists and animalists, but also advocates of various other principles may support Conservationism over Conservatism.

I. THE POSITIVE THESIS

A. Satiabile, Noncomparative, Morally Urgent Requirements

The Positive Thesis affirms satiable, noncomparative, morally urgent reasons to secure adequate protection¹² for all individuals so they can live above some threshold, free from various forms of deprivation like indigence, ignorance, and insecurity.¹³ The most natural way to defend this goal, and its urgency, appeals to the demand to satisfy needs, understood as a satiable requirement with an especially urgent moral salience that satisfying mere preferences lacks.¹⁴ David Wiggins, for example, understands needs as conditions that must be secured if a person is not to suffer harm.¹⁵ Harm prevention, whether it is expressed in terms of satisfying needs or securing basic capabilities,¹⁶ may be justified by beneficence or respect for autonomy and independence,¹⁷ which are also satiable.

Assuming our reasons to meet needs are (i) satiable, (ii) noncomparative, and (iii) morally urgent fits nicely with Sufficiency principles, since they are noncomparative and stringent, and attach special urgency to reaching certain thresholds.¹⁸ Principles requiring the promotion of welfare or resources, by contrast, rely on a continuum

¹² “Adequate protection” is more accurate because “securing Sufficiency” for everyone, including certain patients is impossible. The requirement remains more demanding than Brundtland’s prohibition on harming future people.

¹³ E.g. Locke wrote: “Men, being once born, have a right to their preservation, and, consequently, to meat and drink, and such other things as nature affords for their subsistence” (Locke 1689 [1988], ch. 5, §25). The word “meat” comes from the Old English word “mete”, meaning food in general.

¹⁴ Satiabile goals are those that can, in principle, be fully met. See Scanlon 1975, 1998, pp. 223–9; Raz 1988, p. 235 ff; Mayerfeld 1999, pp. 128–61.

¹⁵ Frankfurt 1984; Wiggins 1987.

¹⁶ Sen 1992, p. 45; Alkire 2005.

¹⁷ See Shiffrin 2012.

¹⁸ See Fourie and Rid 2016; Nielsen and Axelsen 2017.

of benefits with no built-in cut-off point. As a result, these welfarist and resourcist standards make thresholds seem arbitrary, and fit better with comparative principles, like Equality, or aggregative principles, like Utility and Priority.¹⁹

B. Harm Prevention and Kinky Prioritarianism

Few authors entirely reject the Positive Thesis. Some, however, do not see it as a satiable requirement disfavoring specific harms, but rather as the assumption that the weight of reasons of beneficence diminishes unevenly, dropping more abruptly after some point in a continuum of benefits, all of which there are reasons to produce. On this continuum construal, Sufficiency principles are distinctive because they can be represented by an angular turn on a prioritarian function, hence the label “kinky.”²⁰

These two views of Sufficiency differ significantly. First, the harm-prevention construal highlights the urgent and distinctive reasons that pain, suffering, poverty, and destitution generate. The continuous construal highlights instead the similarity in our reasons to oppose such conditions and to promote other benefits, such as pleasure, happiness, affluence, and plenitude. Second, the appeal to needs, and to protection against distinctive harms, like lack of shelter, sustenance, and security, is both more specific, and more widely accepted as triggering a direct moral call or “appeal for help,”²¹ than the abstract idea of endless claims to utility improvements. The latter is both more complex and more controversial. Third, if Sufficiency is merely a kink in a prioritarian function, then a Negative Thesis denying suprathreshold prioritarianism makes no sense. Fourth, for harm-prevention Sufficiency, once we have given the stranger sufficient food, further nutritional benefits are not possible.²² As Rawls puts it, the principle has both “a target *and a cutoff point.*”²³ We may have utilitarian, prioritarian, or egalitarian reasons to benefit the stranger further, but Sufficiency has run its course. On the continuous construal, whether the reasons to grant suprathreshold benefits

¹⁹ Many sufficientarians, however, are welfarists. See Frankfurt 1987; Crisp 2003; Benbaji 2005; Huseby 2010. See also Goodin 1987.

²⁰ For the drearier designation “sufficiency-constrained prioritarianism,” see Casal 2007, p. 319. For “kinky,” see Wolf 2009, p. 367; and for graphics, see Shields 2012, p. 110. For further defenses, see Brown 2005 and Timmer 2022.

²¹ Popper 1950, p. 570 ff; Casal 2007, p. 297.

²² The stranger’s life may continue to improve, for example, with meaningful activities and relationships in a healthy environment. But as Mill and Rawls stress (Sec. IV), beyond some point, greater wealth could even be counterproductive.

²³ See Rawls 1999b, p. 119, italics added.

are weaker sufficientarian reasons, or reasons of a different (e.g. prioritarian) kind require specification. Similarly, the reasons to benefit individuals below the threshold could also be sufficientarian (and diminish as we approach satiation), prioritarian (and increase the worse off we are) or both.²⁴ They could be prioritarian reasons all along if the threshold is instrumentally explicable, which it often is. For example, with more resources above a threshold, people do not report higher levels of satisfaction, or fare better regarding objective basic goods, and North American satisfaction levels apparently peaked in the 1950s.²⁵ Now, if need-satisfaction produces an inflection point in the functions of other metrics, then this would further support harm-prevention Sufficiency but render the continuous view redundant for prioritarians. Like Mill and Rawls, this article assumes the harm-prevention view, which makes Sufficiency a neat, distinctive and widely accepted principle that permits pluralism without confusingly blurred boundaries.

C. Claim Rights and Liberty Rights to Enough

Requirements to secure Sufficiency are usually justified by appealing to *claim rights*. According to Wesley Hohfeld, claim rights correspond to *duties that others have* towards claim right holders.²⁶ Hohfeld contrasted claim rights with *liberty rights* or *privileges*. We have a liberty right to φ if and only if we have no duty not to φ . We often have *both* claim and liberty rights to the same needed resource, a point of great relevance here. Thomas Aquinas, for example, argued that “it is lawful for a man to succor his own need by means of another’s property, by taking it either openly or secretly.”²⁷ He thought that we have duties of self-preservation, and that the needy man has a claim right to food and a liberty right to help himself. These claim and liberty rights exempt him from the

²⁴ See Timmer 2021, p. 432 ff.

²⁵ Easterlin 1974; 1995; Argyle 1999; Karp 2006; Bok 2010, Skidelsky and Skidelsky 2013, ch. 4; Waldinger and Schulz 2023.

²⁶ Hohfeld 1919. Such duties need not fall on specific individuals or result from a contract. For example, we all have involuntarily acquired duties not to abuse children.

²⁷ Aquinas 1265–1274 [2017], Question 66, 7–8. His need, moreover, may justify not only his own actions but also actions by the relevant authorities, or even by spontaneous agents of Sufficiency, like Robin Hood: “In a case of a like need a man may also take secretly another’s property in order to succor his neighbor in need” Ibid. For Aquinas, the needy man’s appropriation of necessities is not even “properly speaking theft or robbery ... because that which he takes for the support of his life becomes his own property by reason of that need.” Aquinas compares his appropriation to legitimate taxation: “It is no robbery if princes exact from their subjects that which is due ... even if they use violence in so doing” (Questions 64–5).

duty to respect private property, which would otherwise apply.²⁸ In Hohfeld's molecular conception of rights, both rights may be *atomic components* of the same right.²⁹ This lends cogency to Conservationism, which links our claim rights to enough to our liberty rights to take the needed resources. Our needs exempt us from a duty to respect the environment and other species that would otherwise apply. Conservatives by contrast, decouple claim rights and liberty rights.

Conservatism and Conservationism are not the only possible variations involving the Positive Thesis. For example, someone could affirm the Positive Thesis, reject Equality and Priority, and reserve all the spare resources for other species.³⁰ And someone may advocate the Positive Thesis, Equality, and Priority and entirely disregard other species or conservation.³¹ For simplicity, this article focuses on two common, representative, and internally coherent combinations, located at two ends of the political spectrum: Conservatism, which is vocal against additional principles like Equality rather than against insufficient conservation,³² and Conservationism, which is vocal against insufficient conservation rather than against additional distributive principles.

²⁸ Ibid. For similar reasons, developing countries may have no duty to pay their debts, or may permissibly engage in wars over unfulfilled claim rights to enough. For relevant discussion, see Lippert-Rasmussen 2017.

²⁹ Wenar 2005, p. 237.

³⁰ E.g. Roger Crisp is skeptical of some environmental values (1994) and Equality (2003), but gives lexical priority to animals enjoying 80 years of high-quality life (2003, pp. 758, 762), and Sen (2014) supplements Sufficiency with Buddhist duties to animals.

³¹ Some Marxist variants do this. See Casal 2020, p. 328 ff.

³² A common interpretation of John Locke's "enough and as good" proviso, Conservatism is ubiquitous (see n. 4). It attracts conservatives concerned with future generations, like Edmund Burke and Roger Scruton (2012), who combine some conservation with conservative views on Equality, reproductive freedom, and animals, and, with some qualifications, anti-conservatives, like Edward Page (2007b, p. 14), who advocates maximizing the number of individuals above Sufficiency, omitting additional restrictions regarding distribution, reproduction, or conservation; or Lukas Meyer and Dominic Roser (2009), who deem Equality inapplicable intergenerationally and omit additional demographic or conservationist restrictions. See also Wolf 2009, p. 367 ff. Beckerman and Pasek (2001) accept Sufficiency and anthropocentrism (p. 134), reject Equality (ch. 4), impersonal values (chs. 8–9), and animal/future people's rights (ch. 2), deem overpopulation just a local problem in some poor countries (p. 190), and find conservationists alarmist (pp. 44, 102 ff, 194–9). Conservationists, Mill included, are mentioned later.

II. CONSERVATISM

Conservatism affirms liberty rights for agents to transform natural resources to benefit themselves or others, provided that exercising them does not conflict with any individual's claim rights to enough. In doing so, they reject additional enforceable requirements to distribute those resources, or their products, in any particular way. The *Conservative Negative Thesis*, then, invokes Universal Sufficiency against additional distributive considerations.³³

Conservatives may grant liberty rights to transform resources into commodities, without also allowing the wanton destruction of resources. And they need not deny all reasons for additional principles of Equality or conservation; they may merely deem them insufficiently powerful or shared to justify coercive interference once all humans have enough.

Conservatives can appeal to different reasons to exclude Equality intergenerationally. For example, the enforcement of egalitarian distributions is easier to justify *within* generations by appealing to numerous *instrumental*³⁴ or *relational* arguments opposing inequality, such as those concerning the undesirability of domination, exploitation, or crime. In contrast, inequality *across* generations is less likely to produce these evils. Some also conceive Equality as an associational ideal, relevant only in a community of interdependent agents, perhaps coordinated by a central political authority, and deny that distant generations form such a community. Moreover, intergenerational egalitarianism faces various difficulties that emerge when our distributive decisions change who will exist and be made worse off than they would otherwise be, or when we ignore what an equal share is because we ignore how many human beings will exist. Circumventing this problem by focusing on what we leave for the next generation is problematic, as we can benefit some generations while harming later ones. Finally, just as it seems odd to be concerned with whether individuals in another galaxy are better off than us, the importance of Equality appears to diminish when we think about generations that are far apart.

Conservatives also tend to reject aggregative principles like Utility and Priority. The main reason for this is that even if we accord less weight to the interests of future people, if there can be over a billion of them for each one of us, we can easily be "outvoted" by the far more numerous future people and asked to bear enormous sacrifices for

³³ See e.g. Frankfurt 1987; Crisp 2003; Huseby 2010.

³⁴ E.g. Wilkinson and Pickett 2009.

them. Priority can be even more demanding than Utility if environmental degradation and population growth make future people both more numerous and needier. These requirements may even violate Aquinas's right and duty of self-preservation, and what Rawls called "the strains of commitment," because they demand that we accept an excessive sacrifice.³⁵

These difficulties, even if surmountable, help explain the popularity of intergenerational sufficientarianism. Conservatism, moreover, represents a radical breakthrough compared to *laissez-faire*, and is also attractive because it is simple, flexible, and more likely to be feasible, since it merely requires keeping the needed resources and population growth in a certain proportion to one another. Conservatism, however, also faces difficulties, in at least the following three respects.

A. Distribution

While the case for egalitarian and prioritarian principles may be stronger within than across generations, Universal Sufficiency can be achieved with enormous inefficiency and unfairness,³⁶ and be consistent with very unequal opportunities across generations and continual future decline.³⁷ Replacing egalitarian or prioritarian claim rights with liberty rights for firstcomers could also allow one generation to seize all the resources required to satisfy all the above-threshold interests of all future individuals. This seems even more implausible than the intragenerational denial of Equality or Priority because, intergenerationally, the number of individuals, risks, and uncertainties are greater, and the consequences are more momentous.

B. Reproduction

The requirement to leave enough for "future generations to meet their needs" is severely indeterminate without any specification or restriction regarding the size of those generations. If the human population grows indefinitely, then it will eventually become impossible to secure enough. If the population begins to shrink indefinitely, then the requirement is consistent with widespread environmental destruction, provided the population is small enough to cope. Leaving enough "providing others reproduce at *equal* rates" is less vague but it introduces egalitarian restrictions that Conservatism eschews, and it can still result in future people living like astronauts,

³⁵ Rawls 1999a, pp. 153–4, see also pp. 126, 370. See also Scanlon 1982, p. 125.

³⁶ Armstrong 2024.

³⁷ Gosseries 2023, pp. 79 ff.

with pills for nutrition but not a bird in sight. Another way to avoid a future populated by deprived human beings involves human extinction.³⁸ In conclusion, unless the requirement to secure enough is specified further, it offers insufficiently clear guidance.

C. Conservation

Having declared that we must satisfy present needs without compromising future generations' ability to satisfy their needs,³⁹ Gro Brundtland became an environmental hero. Less heroically, she then abandoned the international whaling moratorium and supported killing large numbers of pregnant whales as they swam slowly near Norway's coast. She denied any inconsistency because enough whales were spared.⁴⁰ Thus it transpired that Brundtland's vision of "our common future" excluded the interests of whales, their impersonal value,⁴¹ or the above-sufficiency interests of future people in engaging with the whales that her policy killed. It did not matter that whales are environmentally beneficial, nor that Norwegians did not need to sell or eat whale meat, because Conservatism does not require production to be environmentally harmless or needs-related. If others killed equal numbers, whales would disappear, but Brundtland was consistent both because Conservatism precludes egalitarian restrictions and because future people may satisfy their needs without whales.

Perhaps future people could satisfy their needs by reducing waste. For example, we throw away 40% of food produce for aesthetic reasons.⁴² So, are we leaving enough? We have reached levels of carbon dioxide, methane, and nitrous oxide that are unprecedented in the last 800,000 years,⁴³ and this is just one of the many causes of a mass extinction comparable to that suffered by the dinosaurs. *We* are the meteorite now and have lost 77% of land wilderness, 87% of ocean wilderness (in the last century),⁴⁴ 64–71% of wetlands (since 1900),⁴⁵ 40% of sea ice cover (since 1980),⁴⁶ 50% of coral

³⁸ Ibid, p. 77.

³⁹ WCED 1987, p. 27. See n. 4.

⁴⁰ Darnton 1993; Jain 1993.

⁴¹ Something is usually said to have personal value when it contributes to the life of a specific person, generally because this person subjectively cares for it. Impersonal value includes all other sources of value. On whales' interests and impersonal value, see Casal 2021.

⁴² WWF 2021.

⁴³ IPCC 2013, sec. B5.

⁴⁴ Watson *et al.* 2018.

⁴⁵ Davidson 2014.

⁴⁶ European Commission/Copernicus 2020.

reefs (since the 1950s),⁴⁷ and 69% of the population of thousands of species (since 1970).⁴⁸ We have lost a forest area larger than the USA since 1990, and lose one larger than the UK yearly.⁴⁹ By 2050, as many as a million species could be doomed,⁵⁰ and the oceans will contain more plastic than fish.⁵¹ It could take the planet millions of years to recover from the damage inflicted by a minority of humans in recent decades. But if we are leaving enough for humans, Conservatives cannot object.

Having explained Conservatism's shortcomings, let us see how they can be avoided with one possible modification of the view: Conservationism.

III. CONSERVATIONISM

Conservationism avoids Conservatism's shortcomings because it does not share the latter's anti-egalitarianism, its indeterminacy regarding reproduction, or its meager environmental and animalist concerns.

A. Distribution

Since Conservationism does not preclude additional distributive requirements, it can be supplemented by them, forming pluralist accounts. In addition, satisfying Conservationist restrictions on human consumption of natural resources will tend to reduce inequality. This makes Conservationism a noncomparative principle that, like prioritarianism, when implemented, tends to reduce inequality for nonegalitarian reasons.⁵² Finally, once all have enough, we are in a symmetric position regarding claim rights. Granting additional liberty rights merely on a "first come, first served" basis, introduces a morally arbitrary asymmetry⁵³ that is particularly implausible given our concern with needs. That concern favors deferring to future people because while we can know that we do not need something, we cannot be sure that future people will not need it.

⁴⁷ Eddy *et al.* 2021.

⁴⁸ WWF *Living Planet Report 2022*.

⁴⁹ FAO 2020.

⁵⁰ Tollefson 2019.

⁵¹ Wearden 2016.

⁵² Note, however, that Conservationism does not limit an individual's income, nor does it treat spending on yoga the same as spending on polluting activities. It thus avoids the main objections voiced against views like *limitarianism*, which cap the size of all economic inequalities by placing a ceiling on each individual's just holdings. See Robeyns 2016, §4 and §9; 2022.

⁵³ Dworkin 2000, p. 66.

B. Reproduction

Neither Universal Sufficiency nor conservation should be achieved at the cost of human extinction or by reducing the human population below a critical level. Enough humans living in sufficiently good conditions are necessary in order to continue the valuable individual and collective endeavors that humanity has begun. Thus the vague Conservative duty to leave enough for an unspecified number of humans must be replaced with a duty to leave *enough for enough others*, so that a sufficiently large population above the threshold can preserve what makes humanity valuable and persist over time.⁵⁴

On the other hand, in our world, Universal Sufficiency and sufficient conservation are not compatible with unlimited population growth. For example, avoiding *severe* global warming requires per capita emissions to drop to 2 tons of carbon dioxide yearly.⁵⁵ In North America and Australia, per capita emissions already reach 16 tons yearly, and having a child adds 58 tons yearly.⁵⁶ Interestingly, by contrast with health (including reproductive health) and connectedness, reproduction tends not to be listed as a need, as it is not a need for everyone. It is a need for some, however, but like other needs, it is satiable. Bill McKibben's *Maybe One* and Sarah Conly's *One Child* argue that one child is enough.⁵⁷ But even if we need no more than two children, if only needed children are born, the population will decrease, facilitating both conservation and insufficiency elimination.⁵⁸ Every extra birth entails a risk of insufficiency for the individual born, and often for others, particularly once plenty of humans have already been born amidst an environmental crisis. Since those who lack enough place stringent, unconditional, and often costly claims on us, taking Sufficiency duties seriously cannot leave us indifferent to the needless multiplication of claimants. In addition, shortfalls from Sufficiency are not just disvaluable for those who suffer them, or for those who are dutybound to assist those who suffer them. Insufficiency is also impersonally disvaluable, and a world where insufficiency is rampant and out of control is far worse than one where insufficiency is confined to manageable exceptions. This yields general reasons against

⁵⁴ Thus avoiding difficulties with earlier understandings of Sufficiency. See Casal 2007, pp. 298–9. Whether extinction is better than all permanently lacking enough is a subject for another day.

⁵⁵ Girod *et al.* 2013.

⁵⁶ Wynes and Nicholas 2017.

⁵⁷ McKibben 1998; Conly 2016. See also Meijers 2016.

⁵⁸ Scarcity problems ease off when we reduce the number of consumers and not just consumption. See Casal 1999, pp. 372 ff. For example, towards the end of the century, a third of humanity (over 3 billion people) would have to migrate or suffer unsafe heat. See Lenton *et al.* 2023.

increasing the population once it is large enough, while many lack enough and we have not secured sufficient conservation for ourselves or for other animals.

C. Conservation

Conservationists deny that “the hunger of the hungry, the need of the needy, the suffering of the ill”⁵⁹ has personal or impersonal disvalue only when it affects humans. Lacking enough food or shelter harms members of other species. Nonhuman animals *need* resources, which humans merely desire, and they are being unnecessarily deprived and killed by suprathreshold developments.⁶⁰ At least sometimes, moreover, the disappearance of wilderness and biodiversity is also impersonally disvaluable.⁶¹ Finally, even if future suprathreshold human interests can generate only weak claims, since there may be over a billion people in the future for each one of us, it is impossible that their suprathreshold interest in a world with whales and wilderness and a lower risk of insufficiency will not outweigh current desires for whale meat.⁶²

In sum, (i) nonhuman interests, (ii) impersonal values and (iii) the suprathreshold interests of future people⁶³ support conservation, and since, according to Sufficiency, having enough matters greatly, but having more does not, once Universal Sufficiency is secured, the case for conservation is likely to prevail.

We can express this idea with a *Conservationist Negative Thesis* stating that Universal Sufficiency undermines a permission to engage in further depletion, or with a *Conservationist Positive Thesis* affirming the importance of preserving the natural world, for its own sake, for the sake of nonhuman lives, or to protect the interest of future humans in certain suprathreshold benefits or in lower risks of insufficiency.

⁵⁹ Raz 1986, p. 240.

⁶⁰ All wild land mammals already weigh less than 10% of all humans (Greenspoon 2023). See also Wienhues 2020 and Kapembwa 2017.

⁶¹ See e.g. Midgley 1995 and Duclos 2022.

⁶² Conservatism could be revised to require, besides securing Universal Sufficiency, setting aside additional resources to grant everyone equal protection against the *risk* of insufficiency. But then it would not reject suprathreshold equality.

⁶³ For example, the interest in a larger-than-us natural backdrop against which our lives make sense. See Goodin 1992.

D. Varieties of Conservationism

Emphasis on any component of this triple argument will produce distinct variants of Conservationism, emphasizing animal-centered, ecocentric, or anthropocentric values, or all such values combined.⁶⁴ And differences in the all-things-considered importance of conservation yield at least three Conservationist variants.

Maximal Conservationism holds that provided humans have enough, we should maximize conservation. People who have enough may continue to use natural resources sustainably, but activities that produce serious environmental damage, like global warming and extinction, would be subject to strict scrutiny and permitted only when justified by compelling interests, offset, and executed in damage-minimizing ways. On this view, environmental depletion has become increasingly objectionable as the scale of the damage has increased and our justifications for it have dwindled, and it is now more objectionable than ever before. However, even in the 17th century, when biodiversity was abundant and humans were not, it was already wrong to kill all the dodos, because it was unnecessary. Even centuries earlier, it was wrong to pollute the Mayan natural waterholes. For even if environmental depletion is permissible, when necessary, we should not cause it needlessly. And even if future humans will not need whales, we cannot kill them now, because we do not need to.⁶⁵

Minimal Conservationism holds that securing enough for all undermines any justification for further environmental exploitation, but only until sufficient conservation has been secured. On this view, killing the dodos and polluting Mayan cenotes was not wrong, as environmental depletion became impermissible only recently when the current environmental crisis began.⁶⁶ Those who find both Maximalism and Minimalism implausible may prefer an intermediate view.

Moderate Conservationism holds that having secured Universal Sufficiency and sufficient conservation, we must then balance further environmental damage against the reasons for other activities, so that the scarcer a resource becomes, the higher the

⁶⁴ As Sue Donaldson noted during this paper's discussion at Queens, a prohibition on unnecessarily harming animals suffices to deliver Conservationism, since pollution and climate change cause horrific animal suffering. See Crisp 1994, p. 87. Anthropocentrism (or humanism) is the view that nothing matters except insofar as it contributes to human life. See Raz 1986, p. 194.

⁶⁵ J. S. Mill (b. 1806) might have been the first Maximalist, followed by Henry Thoreau (b. 1817), John Muir (b. 1838), Aldo Leopold (b. 1887), Rachel Carson (b. 1907), Arne Naess (b. 1912), Paul Ehrlich (b. 1932), Fritjof Capra (b. 1939), and Paul Watson (b. 1950).

⁶⁶ Dick Arneson, Seana Shiffrin, and Andrew Williams each independently suggested Minimalism to me. See also Wolf 2009, p. 371.

demands for justification become. Since it appears that the causes of dodo extinction and cenote pollution were, respectively, gastronomic curiosity and the chaotic disposal of sacrificial bodies, neither was justified. Whaling is also impermissible, given cetacean capacities, painful deaths, and ecosystem functions. But it could be permissible to painlessly kill certain animals or even to cause their extinction.⁶⁷

The idea of “sufficient conservation” that the two latter views invoke may appear to have been plucked out of thin air. However, while all threshold concepts, from adulthood to insanity, involve some arbitrariness, the concept of sufficient conservation is particularly well grounded in science.⁶⁸ For example, ice melts and water evaporates at certain temperatures. When the sea ice cover melts and stops reflecting sunrays, the oceans rise and warm up, temperatures increase, and permafrost thaws, releasing ice-trapped gas, which may raise temperatures enough to reverse oceanic currents, causing other chain reactions and extinction cascades. Of all the known *planetary boundaries*,⁶⁹ we are presently safe regarding only the ozone and (at current temperatures) water boundaries, but we will soon cross the biodiversity, climate, nitrogen, phosphorous, wilderness, and oceanic acidification boundaries, and probably other boundaries for which we lack data.

Conceivably, we may discover a technological solution to avoid all these thresholds soon. And developing green technology may require provisionally spending more than enough in ways that make this investment worthwhile. But allowing targeted, temporary, calculated deviations from a principle in order to adhere to it more effectively is not at all like ignoring it. Conservationism welcomes technology that permits preserving nature. But when the most widely cited risk of human catastrophe is environmental, and the second is technological hubris, it is too risky to gamble on technological fixes that do not yet exist, particularly when resource-saving innovations have typically been dwarfed by the increased consumption they generate — as the famous Jevons paradox highlights.⁷⁰

Further arguments favoring Conservationism over Conservatism can be found in the works of John Stuart Mill and John Rawls. As we shall see, Mill advocates a Maximalist and Rawls a Moderate position.

⁶⁷ Dworkin 1986, p. 20, and Wilson 2017, which aims to save 80% of species by turning half the planet into protected wilderness.

⁶⁸ Over 15,000 scientists have warned us that we are reaching a dangerous threshold, see Ripple *et al.* 2021.

⁶⁹ Stockholm Resilience Center 2023.

⁷⁰ van der Bergh 2011; Brockway *et al.* 2021.

IV. MILL, RAWLS, AND CONSERVATIONISM

A. Millian Arguments

As we move towards environmental catastrophe, the case for conservation becomes stronger. As long ago as 1848, however, John Stuart Mill had already advanced various reasons for limiting human population and preserving nature.⁷¹ Mill focused on arguments suitable for anthropocentric audiences, but he held that “an existence exempt as far as possible from pain” should be “secured to all mankind, and ... so far as the nature of things admits, to the whole sentient creation.”⁷²

Mill’s first argument rejects the view that the human population should be as large as possible rather than merely *large enough*. The global population was then below 1.5 billion, but exploding, like Britain’s population, which was almost 28 million.⁷³ Mill found this ample “to obtain, in the greatest degree, all the advantages both of cooperation and of social intercourse.”⁷⁴ Arguing against further population growth, he wrote that “it is not good for man to be kept perforce at all times in the presence of his species,” and that “solitude in the presence of natural beauty and grandeur, is the cradle of thoughts and aspirations which are not only good for the individual, but which society could ill do without.”⁷⁵

Mill also regretted heading towards a world devoid of “the spontaneous activity of nature” with

every flowery waste or natural pasture ploughed up, all quadrupeds or birds which are not domesticated for man’s use, exterminated as his rivals for food, every hedgerow or superfluous tree rooted out, and scarcely a place left where a wild shrub or flower could grow without being eradicated as a weed in the name of improved agriculture.⁷⁶

⁷¹ Mill 1848 [1994], bk. IV, ch. VI.

⁷² Mill 1861 [1991], p. 143. See also his defense of legislation to protect animals, comparing them to children (Mill 1848 [1994], p. 344) and his rejection of moral systems that do not clearly condemn animal abuse (Mill 1836).

⁷³ See OWD 2023.

⁷⁴ Mill 1848 [1994], p. 128.

⁷⁵ *Ibid.* p. 128.

⁷⁶ *Ibid.* p. 129.

Mill concluded that having reached a sufficiently large population, there was very little reason for favoring an increase, even if it was innocuous.⁷⁷

Turning to his second argument, Mill claimed that societies that have *developed enough*, like his own, need not strive further to increase material production, but should instead *focus on improving distribution*, which includes developing just institutions and containing demographic growth. In support of our ceasing to focus on increasing production, Mill argues that “hitherto it is questionable if all the mechanical inventions yet made have lightened the day’s toil of any human being.” Instead, they have merely “increased the comforts of the middle classes” and “enabled a greater population to live the same life of drudgery and imprisonment, and an increased number of manufacturers and others to make fortunes.” We would not have to increase production to feed an ever-growing population if we refrained from increasing the population in the first place. We could have more goods, but then Mill asks “why it should be a matter of congratulation that persons who are already richer than anyone needs to be” obtain more.⁷⁸

In sum, Mill rejects the view that the human population should be as large and as wealthy as possible rather than sufficiently large and wealthy. Rather than increasing production to supply a larger or wealthier population, society should focus on distribution, just institutional reforms, and population containment. All this fits with Conservationism, but Mill’s third and final argument goes beyond it.

Sooner or later, Mill concludes, people will have to adopt a stationary state, involving constant population size and capital stock, and it is better if they do so “long before necessity compels them to.”⁷⁹ We may imagine that this is so because of all the damage and difficulty in transition that early adoption will reduce. But for Mill, it is because adopting the stationary state is *not* a necessary sacrifice but the ideal condition for mankind. In such a state, rather than enriching manufacturers or feeding the ever-growing masses, mechanical inventions will enable us to enjoy leisure, ideas, and art in the company of others and an unspoiled environment, and focus on “all kinds of mental culture, and moral and social progress.” We will develop “the Art of Living” as our “minds [cease] to be engrossed by the art of getting on.” The stationary state, Mill argues, offers “the best state for human nature”: “that in which while no one is poor, no one desires to be richer nor has any reason to fear being thrust back, by the efforts of others to push themselves forward.”⁸⁰

⁷⁷ Ibid. p. 128.

⁷⁸ Ibid. p. 127.

⁷⁹ Ibid. p. 129.

⁸⁰ Ibid. p. 127. If we think Mill’s 1848 arguments for Conservationism find their undeclared but ultimate justification in his 1863 arguments for average rule utilitarianism, then this does not undermine Conservationism, but instead adds an additional source of support for it.

Mill goes beyond Conservationism, because whether even Maximal Conservationism *requires* a stationary state is an empirical question. Thus Rawls, as we will now see, advocates *openness* towards the stationary state, as it is possible but not inevitable that justice will require it.

B. Rawlsian Arguments

Like both Conservatives and Conservationists, Rawls advocates a “social minimum”⁸¹ supported by “a lexically prior principle requiring that citizens’ basic needs be met.”⁸² However, he sides with Mill and other Conservationists in various respects. First, Rawls deems great wealth to be of limited moral value and probably counterproductive:

it is a mistake to believe that a just and good society must wait upon a high material standard of life. What men want is meaningful work in free association with others ... within a framework of just basic institutions. To achieve this state of things great wealth is not necessary. In fact, beyond some point it is more likely to be a positive hindrance, a meaningless distraction at best if not a temptation to indulgence and emptiness.⁸³

Regarding growth, Rawls stresses that “no reasonable conception of justice” can “rule out Mill’s idea of a society in a stationary state, where (real) capital accumulation may cease.”⁸⁴ He supplements his lexically prior principle, requiring Sufficiency for each individual, with the difference principle, a Paretian-egalitarian principle regulating the prospects of groups. Rawls then remarks that this principle, prohibiting inequalities that are detrimental to the prospects of the least advantaged, must *also* be “compatible with a social product of a steady-state equilibrium in which a just basic structure is supported and reproduced over time.”⁸⁵ A final relevant feature of Rawls’s theory of justice is that he favors public principles that are sufficiently clear for agents to know if they are following them or not,⁸⁶ and Conservatism is too indeterminate to meet this desideratum (see section II. B above). Rawls’s views on social justice, then, place

⁸¹ Rawls 1999c, p. 582.

⁸² Rawls 1993, pp. 7, 166, 228 ff; 2001, p. 44, n. 7.

⁸³ Rawls 1999a, pp. 257–8.

⁸⁴ Rawls 2001, pp. 64, 159. For more Millian, anti-growth, anti-consumerist statements, see Rawls’s correspondence with Philippe Van Parijs (VVAA 2003).

⁸⁵ Rawls 2001, pp. 159–60. See Williams 2011.

⁸⁶ Rawls 1999a, pp. 48–9, 115ff, 153ff, 397 ff, 510; 1999c, pp. 293, 324, 371–98. See Williams 1998, 2024, and Gosseries and Parr 2022.

him closer to Conservationism than to Conservatism. His views on international and intergenerational justice, moreover, also do so.

Internationally, Rawls advocates a duty to assist “burdened societies,”⁸⁷ and a duty to reform the global conditions that aggravate that burden.⁸⁸ Conservationism reduces the demand for oil and other natural resources that empowers the tyrants who control them, and which exacerbates global environmental problems that are likely to hinder the burdened further, causing instability, mass migrations, and even the disappearance of some states. There are thus strong Rawlsian global justice reasons to support Conservationism.

Intergenerationally, Rawls advocates principles that each generation can wish that previous generations had followed,⁸⁹ and Conservatism’s “first come, first served” fails this test. In accordance with this appeal to universalizability, Rawls argues that all generations, including less advantaged, earlier ones, have a duty to save in a progressive manner, related to their ability to do so, and without violating the “strains of commitment” mentioned earlier. The duty has a satiable target and is designated not to make society ever “more wealthy” but to reach “a state of society with a material base sufficient to establish effective just institutions.”⁹⁰ Once this target is achieved, “real savings may fall to zero: and existing stock only needs to be maintained, or replaced, and nonrenewable resources carefully husbanded for future use as appropriate.”⁹¹

This process is now chiefly threatened by insufficient environmental conservation, as scientists warn that we are heading towards a potentially explosive situation, and even the “collapse of civilization.”⁹² Under such circumstances, from Rawls’s perspective, we should spare no effort, because justice is humanity’s most important collective endeavor, and if justice perishes, one must wonder if there is “any value in human beings’ living on the earth.”⁹³

⁸⁷ Rawls 1999b, pp. 5, 37, 43, 85, 105–19.

⁸⁸ See Rawls 1999b, pp. 78–82, 115–20. Rawls (1999b, p. 107) repeats that well-ordered societies need few resources, and praises Mill’s stationary state (p. 108). But the Rawlsian arguments for this second duty are more explicit in Seleme 2010. See also Huseby 2013.

⁸⁹ Rawls 1999a, pp. 255; 2001, p. 160.

⁹⁰ Rawls 1999a, pp. 256–7. See Wolf 2009, p. 360.

⁹¹ Rawls 1999b, p. 107. As Wolf (2009, p. 362) notes, “extraction and insufficiently productive consumption of resources ... is only apparent growth, not real accumulation.”

⁹² Bradshaw *et al.* 2021; Steel, DesRoches, and Mintz-Woo 2022.

⁹³ Rawls 1999b, p. 128; Kant 1797 [1996], p. 105.

In sum, Rawls has many reasons for preferring Conservationism over Conservatism. However, since the protection of humanity's most important endeavor — justice — requires only sufficient rather than maximum environmental savings, Rawls seems to support only Minimal or Moderate Conservationism. Mill, by contrast, unrestrained by anti-perfectionism in his advocacy of “the best state for human nature,” advocates Maximalism. Rawls's reasons for conservation, however, are not merely instrumental or anthropocentric. He argues that “it is wrong to be cruel to animals,” believes in impersonal political values,⁹⁴ and holds that “the destruction of a whole species can be a great evil.”⁹⁵ Moreover, rather than excluding these considerations, he instead hopes that his “account of justice among persons” will remain adequate “when these broader relationships are taken into consideration.”⁹⁶ This means that principles for distribution among humans are provisional conclusions that may have to be revised when nonhumans are also taken into full account. This article revises human Sufficiency in this broader context.

V. OBJECTIONS TO CONSERVATIONISM

Conservationism affirms a presumption that environmental destruction unnecessary to ensure Universal Sufficiency is wrongful, at least until sufficient environmental protection has been secured. This final section examines two objections to this view, one that finds it excessively concerned with the environmental crisis, and one that finds it insufficiently concerned.

A. The Substitutability Objection

The first objection, often voiced by those least concerned with the environmental crisis, claims that focusing on environmental degradation is *arbitrary* or fetishistic, since there is nothing special about nature. Instead, like technology, nature is just one replaceable production factor among others. Thus it does not matter if we have fewer forests if we also have more efficient ways of using them. Nature is not endlessly replaceable, as we still need *some* forest, but Conservatism already requires that we leave enough for future people's needs; and other principles require us to distribute nature in various ways, without also insisting that we set some aside.

⁹⁴ E.g. human life, Rawls 1993, p. 243.

⁹⁵ Rawls 1999a, p. 448.

⁹⁶ Rawls 1999a, p. 449.

The most obvious response is that deeming nature a mere tool for satisfying human desires is implausibly anthropocentric. Moreover, even from an anthropocentric perspective, focusing on nature is justified because depriving humans of nature is a distinct kind of harm, which has been systematically leading us to our downfall, and which, as Mill noted, can alter the kind of creatures we become.⁹⁷ Let me elaborate.

Members of other species certainly cannot be seen as mere tools. Sparing enough whales, like sparing enough children, fails to render the killings permissible. Cetaceans are unique, unrepeatable living individuals, who want to go on living,⁹⁸ and we should avoid killing them even if we do not need them. The same applies, for instance, to each marsupial tiger or Japanese sea lion that desperately tried to escape death while hunted to extinction in the 1930s. They were unique individuals and species. And cenotes are not only the main source of drinking water in a riverless territory, but part of an intricate system of stalactite and stalagmite-filled caves and caverns, with crystal clear waters formed from the gradual accumulation of raindrops slowly filtered through limestone, which run through underground rivers and waterfalls, sustaining lush but delicate ecosystems of aquatic and terrestrial creatures, thriving in distinct light and microclimatic conditions. We have reasons to respect these unique living entities that do not apply to our copious, lifeless, and multiply duplicated manufactured objects.

Turning to anthropocentric considerations, even when nature was abundant, and humans were not, it seems that those who found these natural cathedrals polluted had a strong complaint. They did not, however, have a comparable complaint that earlier settlers did not leave enough ready-made axes lying around for them to use without having to make or sharpen them themselves, or that they did not construct wells for future people. This suggests that there was something wrong about unnecessary damage even in the Neolithic, and well before water scarcity hastened the Mayan collapse. One may attempt explanations of this case that appeal to the fact that nature is unproduced and thus free from producers' entitlements over their products, or to the fact that nature is limited and *unproducible* rather than unproduced. Other explanations may invoke the fact that nature is uniquely essential to human survival, or appeal to the special value of the ancient versus the recently made, or even construe the difference between damaging nature and failing to manufacture items in terms of harming versus failing to benefit. Those unpersuaded by any such explanation, or even by the claim that

⁹⁷ Mill 1848 [1994], 128 ff. Extricated from nature and placed in crowded conditions, other mammals become the worst version of themselves, and social research suggests we are no exception. See e.g. Levine 2003.

⁹⁸ Some cetaceans are even known to introduce themselves to others with proper names. See Hiley *et al.* 2017.

the Maya who found the waterholes unnecessarily polluted had a strong complaint, may still grant the (Minimalist) claim that we later made nature special, by making parking lots and shopping malls abundant and pristine areas extremely rare. Reflecting on this fact, we may also note that pristine areas are full of potential and do not force us in only one direction. By contrast, when resources are transformed into parking lots or shopping malls, their potential tends to be irreversibly narrowed down: imposing some options and precluding others. Compare this case with somebody reforming our house in our absence, using our money without consulting us and covering our garden in concrete. We would have strong complaints because they irreversibly employed our all-purpose means in a particular fashion, imposing their criteria on us. And if the reform negligently introduced new risks, like toxic paint or dangerous rewiring, then we would have *very* strong complaints.

Now, we know that future people will have complaints like those of the examples involving waterholes, comparative scarcity, and makeovers, which illustrate distinct harms. And we also know that people will leave both buildings and methods of building for future generations without even trying. Conservation is what requires concerted efforts focused on doing so: anthropological evidence suggests that human success is due to our tendency to spread knowhow,⁹⁹ while environmental degradation is the most common cause of civilization collapse.¹⁰⁰ This is why environmental protection plays so special a role in our achieving intergenerational justice. We must thus focus on the natural resources we ought to leave for others, not only because nature is unproduced, unproducible, ancient, limited, unique, or uniquely essential for survival, but because this is the legacy at risk.

Turning finally to the other principles, perhaps not only Conservatism, but also Utility, Priority, and Equality presently fail to attend to nature separately. Utilitarians regard everything, even people, as fungible means to produce utility, while egalitarians focus on welfare, capability, or resources, without attending to nature specifically.¹⁰¹ But this may be alterable. Equality, for example, could regulate access to protected wilderness. More importantly, since Conservationism can be integrated into pluralist accounts, it can perform the function of securing sufficient conservation in normative systems organized around other principles.

⁹⁹ See e.g. Linton 1936; Henrich 2015.

¹⁰⁰ See e.g. Diamond 2005; Montgomery 2012; Dasgupta *et al.* 2019.

¹⁰¹ Within the extensive literature on substitutability, a classic is Barry 1997.

B. The Irrelevance Objection

The final objection rests on the assumption that the environmental crisis is already so grave that future people will not have enough. If so, it argues, Conservationism is *irrelevant*, because it is a view about what to do with a surplus of natural resources not needed by humans, and, alas, such a surplus is not going to exist. In response, it is important to stress that such a bleak future is not cast in stone but depends on the individual and collective norms adopted. If Conservationism is adopted, such a future will not materialize. If it does, Conservationism's relevance may be less obvious, but no less important.

First, Conservationism's attention to needs and noncomparative thresholds is particularly relevant under extreme scarcity, because people can tighten their belts but cannot do so endlessly. In such scenarios, Equality or a maximinizing version of Priority would favor rather disastrous distributions.¹⁰² For example, a distribution which causes some to survive and others to die in pain is preferable to another in which everyone dies painlessly. Both Equality and maximin, however, favor the latter. Second, Conservationist arguments regarding population decline are particularly relevant under extreme scarcity, since even when such decline will suffice to overcome it, severe scarcity often causes population growth.

Finally, whatever principle for resolving distributive conflicts between needy human beings we should adopt, principles can usually be satisfied in ways that harm members of other species and the environment to differing degrees. We should not be indifferent between these variations: Conservationism therefore remains relevant even under extreme scarcity, because it pays due regard to nonhuman values in resolving distributive conflicts among humans.

In sum, it is unwarranted to assume that when insufficiency cannot be eliminated but only contained or minimized, Conservationism becomes irrelevant.

VI. CONCLUSIONS

The principle of Sufficiency is widely employed in intergenerational ethics, a context in which other principles face difficulties. It has at least two interpretations. *Conservative*

¹⁰² This partly explains why Rawls favors maximin (a rule that selects the option with the least bad worst outcome) *only* when (i) we are unable to make probabilistic predictions, (ii) the least bad worst outcome is satisfactory, and (iii) the alternatives are intolerable (see Rawls 2001, pp. 43, 97–104). In bleak scenarios, when threatened by disasters of varying magnitude and likelihood, a *disaster-avoidance* rule requiring us to maximize our chances of avoiding *any* disasters is preferable to *maximin*, which focuses on avoiding the worst disaster, even when it is the least likely. See Kavka 1986, pp. 200–24. Note too that the IPCC makes predictions with five levels of confidence or likelihood. See e.g. IPCC 2020, p. 9.

Sufficiency grants extensive liberty rights to engage in environmentally destructive production that end only when doing so deprives future humans of enough. Once humans have enough, it denies the relevance of Equality or Priority among humans, or the relevance of leaving nonhumans without enough. For *Conservationist Sufficiency*, by contrast, Universal Sufficiency does not undermine the relevance of Equality or Priority but rather the justification for continued environmental degradation, at least until enough conservation for humans and nonhumans has been secured. Since, according to Sufficiency, having enough matters greatly, but having more than enough does not, and various human and nonhuman values support conservation, the case for conservation is likely to prevail.

Utilitarians and *prioritarians* are likely to prefer Conservationism over Conservatism because Conservatism permits firstcomers to exploit their position to a greater degree, while Conservationism comes closer to the utilitarian and prioritarian concern for the long term. Moreover, utilitarians and many prioritarians attach importance to harms to other animals, and many present and future animals will be harmed by our procuring unnecessary items for ourselves.

Prioritarians and *egalitarians* will prefer Conservationism because it does not reject Equality or Priority and has a built-in tendency towards greater Equality. These reasons also make Conservationism more attractive for *limitarians*, who unlike Conservationists limit how much individuals can own or earn rather than consume.¹⁰³

Conservationism will be preferred by environmentalists and those concerned with animals, and perhaps also by advocates of *Sufficiency*, since it captures better the sufficientarian emphasis on the greater urgency of preventing harms in comparison with chasing suprathreshold benefits.

Finally, Mill clearly favors Conservationism, and Rawlsians should do so too, since it does not reject Equality or Priority, lacks excessive “strains of commitment” and respects publicity desiderata. It is, moreover, a principle that each generation can wish that previous generations had followed, and it is more likely to protect just and stable institutions, and international and intergenerational justice.

Many different perspectives, then, converge with this article’s main conclusion: if Sufficiency is to remain the sovereign principle of intergenerational justice, then it should be adopted in its Conservationist rather than in its Conservative interpretation.

¹⁰³ See n. 52.

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COMPETING INTERESTS

The author declares that she has no competing interests.

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