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# Sustaining the Individual in the Collective: A Kantian Perspective for a Sustainable World

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## Abstract

Individualist normative theories appear inadequate for the complex moral challenges of climate change. In climate ethics, this is especially notable with the relative marginalization of Kant. I argue that Kant's philosophy, understood through its historical and cosmopolitan dimensions, has untapped potential for the climate crisis. First, I situate Kant in climate ethics and evaluate his marginalization due to perceived individualism, interiority and anthropocentrism. Then, I explore aspects of Kant's historical and cosmopolitan writings, which present a global, future-orientated picture of humanity. Ultimately, Kant's philosophy offers a unique take on the climate deadlock capable of sustaining the individual in the collective.

**Keywords:** Kant; climate change; individualism; history; progress

## 1. Introduction

Individualist normative theories appear inadequate for the collective challenges of climate change. The problematization of individualist thinking in climate ethics literature is especially notable with the relative marginalization of Kant's philosophy.<sup>1</sup> Kant's perceived individualism (along with his non-consequentialism, anthropocentrism and 'interiorism') make him appear to be a bad resource for normative engagement with climate change.<sup>2</sup> However, this article argues that Kant should not only be part of the philosophical conversation regarding sustainability, but that he has untapped potential for resolution of normative climate deadlocks.

I believe that the more usual view of Kant's philosophy is in fact compatible with several goals in climate ethics. Nonetheless, this more usual approach still falls short with regard to the aforementioned collective dimension. I argue that a consideration of Kant's historical, religious and cosmopolitan writings provide us with a less individualist picture of humanity that requires considering individuals, institutions and nations as part of the ongoing plight of the human species' progress toward perfection.<sup>3</sup> By reconciling the worth of individuals as part of and alongside the transtemporal human species (or regulative 'macro agent' as I will call it), this perspective provides an alternative lens of analysis for climate ethics capable of superseding the usual cost-benefit

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approach there, and the narrow short-termism common to individualist theories. I illustrate this, at the end, with geoengineering as a case example. Just like individual agents, ‘humanity writ-large’ has duties regarding nature and toward itself, and these are relevant for rethinking climate change. A main obstacle blocking entry into climate ethics – namely, Kant’s perceived individualism – is thus side-stepped. At the same time, revealing this alternative pathway is a helpful step toward showing commentators that other emerging literature on Kant’s political, historical and legal philosophy matters.

Section 2 begins by situating Kant’s environmental reception, with reflections on why he has been overlooked. Section 3 suggests, in agreement with other commentators, that Kant’s philosophy is still compatible with certain environmental aims. Section 4 then explores Kant’s philosophy of history and regulative holism. These help overcome problems noted in section 2 and limitations noted in section 3. Section 5 concludes by addressing objections to this Kantian-inspired reading, with a consideration of global geoengineering. One liability of geoengineering technologies includes the negligent disregard for the well-being of moral agents who have contributed the least to the problem at hand, such as those in the Global South.

## 2. Challenges of climate change

Climate ethicists have been tasked to marshal the tools of philosophy to tackle novel challenges. First, climate change is the biggest collective-action problem facing humanity. Individual emission reduction, though admirable, does little on its own. Consequently, many succumb to ‘climate nihilism’ since the problem demands too much of single agents. Second, there are systemic political deadlocks: regulatory capture, or the failure of governance via corporate capturing of politicians and regulatory agencies, precludes the adoption of sustainable policies and institutions aimed at the public good. Third, climate impacts are indirect and dispersed: from, for example, global warming to drought, and water insecurity to refugee crises and war. This indirect and abstract problem short-circuits our usual normative machinery (Garvey 2008; Gardiner 2011). Finally, we require global, collective responses, but are not very good at thinking internationally or long term. Yet humanity finds itself at a fork in the road:

In our view, the evidence from tipping points alone suggests that we are in a state of planetary emergency: both the risk and urgency of the situation are acute.

We argue that the intervention time left to prevent tipping could already have shrunk towards zero, whereas the reaction time to achieve net zero emissions is 30 years at best. Hence we might already have lost control of whether tipping happens. A saving grace is that the rate at which damage accumulates from tipping – and hence the risk posed – could still be under our control to some extent.

The stability and resilience of our planet is in peril. International action – not just words – must reflect this. (Lenton et al. 2019)

Before discussing how Kant might help us, the next section considers why Kant's historical marginalization has seemed to make sense to so many environmental critics.

### 2.1 Early critics of Kant in environmental ethics

Holmes Rolston III arguably sets the stage for Kant's marginalization.<sup>4</sup> Long before climate ethics, Rolston argued that environmental ethics requires a collective paradigm shift (1988: 137–59), and Kant's thought is seen to be constitutive of the old paradigm. Even 'greener' Kantian positions are deemed inadequate for collective responsibility (Rolston 1988: 146). Citing the following passage in Kant's *Anthropology*, Rolston rejects his philosophy:

The fact that the human being can have the 'I' in his representations raises him infinitely above all other living beings on earth. Because of this he is a *person*, and by virtue of the unity of consciousness through all changes that happen to him, one and the same person – i.e., through rank and dignity an entirely different being from *things*, such as irrational animals, with which one can do as one likes. (*Anth*, 7: 127)

For Rolston, this passage is emblematic of a human-centred tradition with little concern for environmental issues. His reaction is unsurprising, given the oft-cited Kantian claim of human superiority (*Anth*, 7: 127; *CPJ*, 5: 431–5; *CB*, 8: 114). There is, of course, the question as to whether this remark generalizes to all of Kant's philosophy, which Rolston assumes.<sup>5</sup> Supposing it does, there remains the different question as to whether an anthropocentric Kantian philosophy inspired by this passage might still not have value for human-related climate concerns.

### 2.2 Critics of Kant in climate ethics

Even if Kant's philosophy is problematic for environmental ethics, it still might be useful for climate ethics, for climate ethics often focuses on human concerns and does not typically employ non-anthropocentric arguments. In practice, however, Kant's early marginalization in environmental ethics left scars.<sup>6</sup> The historical and conceptual connections between environmental and climate ethics, and the relative marginalization of Kant in the former, prefigure the implicit marginalization of Kant in the latter. In any case, it will not be hard to see why both schools might assume Kant's philosophy to be a lost cause.

Like Rolston, James Garvey is dubious of the value of Kant's ethics for environmental philosophy, since he is beholden to the anthropocentric canon from Aristotle to Descartes (Garvey 2008: 52). Further, Garvey claims that 'environmental ethics is largely in the business of expanding our conception of value or at least the number of things that we value' (p. 51). Kant does not seem to allow for this, given his ratio-centrism, and even non-anthropocentric deontologies are criticized for their inadequacy for collective problems (pp. 53–5). Garvey does pause on the possibility of conceiving the categorical imperative as a test for sustainability, but then moves quickly on to utilitarianism (pp. 149–50). John Broome assumes utilitarianism as a 'default' approach for climate change (Broome 2012: 114). Kantianism is not

mentioned once in his influential work. If speculation is in order, perhaps the perceived individualism makes Kant into a conceptual dead-end here. Henry Shue raises such a complaint: Kant is an apparent obstacle for an intergenerational and global principle of equity (Shue 2010: 104). Kantianism thus seems inadequately limited to present-generation individuals.

Stephen Gardiner's pivotal work includes an extended discussion of utilitarianism as defended by Dale Jamieson (Gardiner 2011: 235–42). Gardiner does not, however, consider Kantianism worthy of serious debate. For he believes the central concerns raised by climate change are collective and intergenerational, not individualist and maxim-centric. Interestingly, Gardiner does suggest, albeit only briefly, that generations could be accounted for by an interconnected conception of humanity. He then specifically references Kant's kingdom of ends (p. 157), *pace* Shue. Yet in general, commentators briefly and summarily dismiss Kant, or they hardly mention him at all. Jamieson, at the very least, is one exception.

In his book on climate change, Jamieson's single paragraph on Kant is telling: Kant is dismissed outright, since he is incapable of helping with collective action problems (Jamieson 2014: 173). Little detail is given to defend this claim or how in fact he interprets the categorical imperative. Some Kant commentators have begun to take this avenue seriously (Williams 2019, Vereb 2021). Elsewhere, Jamieson highlights what he sees as the two defining features of Kantian ethics: 'its individualism, and its emphasis on the interior' (Jamieson 2007: 161). For him, Kantians have little resources to include 'global environmental change' as a problem, and do not appreciate 'that the business of morality is to *bring something about*' (Jamieson 2007: 161). He goes on:

Some Kantian philosophers have tried to overcome the theory's individualism but this is difficult since these two features are closely related . . . if our primary concern is how we should act in the face of global environmental change, then we need a theory that is seriously concerned with what people bring about, rather than a theory that is (as we might say) 'obsessed' with the purity of the will. (Jamieson 2007: 161)

It is curious to note that Jameson seems unaware of (or unwilling to engage) relevant work on Kant's political philosophy and legal theory (Williams 1983, Ripstein 2009). Several commentators have in fact pursued alternative routes to begin reflecting on climate change (Ataner 2012, Bernstein 2019, Pinheiro Walla 2020). It is also puzzling that Jamieson assumes that emphasis on being motivated by duty precludes actions that could change the world.<sup>7</sup>

Climate ethicists tend to analyse the climate crisis in two ways: legality and morality. With regard to the former, the crisis is framed in terms of conflicts of interest. With regard to the latter, it is framed in terms of fairness. In either case, classic concepts such as liberty and rights settle the foreground, and these concepts are best understood in post-Kantian frameworks. Of course, Kant's philosophy has been, in part, an inspiration for such approaches. We see this best in the Rawlsian appropriation of Kant's ethical theory, which has in many ways become a paradigm for liberal thought more generally.<sup>8</sup> But Kant's ethical thought is not simply about rights, individual agents and liberty. It also encompasses positive duties, collective ends, universal limits and constraints on choice (Wood 1999: 316). Most notably, as we shall see,

Kant's thought also has an evolutionary dimension that is generally underappreciated. In particular, it supplements his view of 'humanity' in a way crucially relevant to concerns of climate ethics. But before getting to this, I briefly suggest that even the more standardly emphasized aspects of Kant's ethics can at least justify his inclusion at the climate roundtable.

### 3. Value and limitations of Kantianism for climate change: Kant's problem

As noted, it is understandable why environmental critics would reject a framework generally perceived as anthropocentric, individualist and interiorist. Anthropocentrism seems problematic since a large component of the problem involves non-human nature. Individualism seems problematic since climate change must be understood in collective terms, across institutions, nations and generations. Lastly, a focus on maxims and agent-interiority, as Jamieson worries, appears problematic by ignoring climate impacts, such as extreme weather or resource scarcity.

Nonetheless, there is a growing literature on a 'greener' Kant. Contributions include rehabilitating Kant's indirect-duty views, where the moral works and third *Critique* are emphasized. Relatedly, Toby Svoboda defends a Kantian approach to environmental ethics on the basis of Kant's account of virtue (Svoboda 2012).<sup>9</sup> Martin Schönfeld interprets the categorical imperative naturalistically, as a model for a 'metaphysics of sustainability' (Schönfeld 2010). Matthew C. Altman proceeds more pragmatically, arguing that Kant's practical philosophy – paired with the *CPJ*'s regulative teleology – has strategic value for environmental problems (Altman 2011). Alice Pinheiro Walla, lastly, considers the categorical imperative as a principle for sustainability. She concludes that Kant's *legal* philosophy is better suited to address climate change (Pinheiro Walla 2020).

We have duties to ourselves to avoid wanton destruction of beautiful flora and animal cruelty (*MM*, 6: 443, *Eth-Collins*, 27: 459–60, *Eth-Vigil*, 27: 710), since such actions diminish our moral perfection (*MM*, 6: 446). Kant also enjoins us to appreciate and love nature as a beautiful and harmonious system (*CPJ*, 5: 267, 380, *Eth-Vigil*, 27: 668–9). Climate inaction will involve the moral failing of agents on a mass scale due to the ongoing sixth mass extinction. With widespread biodiversity loss, this failing will also diminish opportunities to appreciate nature's beauty. And, of course, human destruction, especially of those vulnerable regions of the world, is even more reason to justify action. Thus, even the more usually emphasized aspects of Kantian ethics can help us frame climate change as a moral problem, and in particular make Kant's anthropocentrism less worrisome. What about his 'interiority'? Still apart from what I want most to emphasize in this article, help might be found in Kant's political philosophy, for example, in application of ideas from *TPP*, the Doctrine of Right, and *R* (*Religion*, especially part 3).<sup>10</sup>

Without entering into global climate agreements and transforming societies into sustainable cooperators, humanity risks civilization collapse, especially for vulnerable nations. Since it is a threat amplifier, climate change breeds war, so we can understand climate change to be a hurdle in the way of peace. If we view nations as akin to individual persons (*MM*, 6: 343; *TPP*, 8: 344), then their actions would also be subject to sustainability constraints. On the domestic level, failure to reform institutions undermines the capacity of citizens for long-term independence. Finally, from the

perspective of nations, disregarding citizens is analogous to persons neglecting health: preservation of health is a duty only indirectly, as a condition for the possibility of self-determination or insofar as it assists in resistance to moral temptation (*MM*, 6: 388). As we have recently seen, citizens cannot act morally if they are incapacitated due to heat exhaustion, and nations that deny citizens the proper exercise of external freedom likewise fail their purpose as nations. Health of citizens is a precondition for health of nations. Climate change threatens both.

Thus arguably, with further development inclusive of his political works, and particularly with respect to perceived challenges from an overly anthropocentric and 'interiorist' emphasis in a reading of Kant, Kant might indeed become a significant asset. However, the 'individualist' problem for climate change still looms large. And it is in any case unclear whether, even exploiting the resources so far indicated, Kant has anything *unique* to offer for the questions at hand. I therefore suggest that we pursue a new avenue, exploring a global, future-directed Kant centred on the idea of humanity writ-large – but in particular writ larger than as more traditionally conceived, when conceived as a kingdom of individual human ends.

#### 4. A Kantian perspective for a sustainable world

I begin by providing a gloss of Kant's philosophy of history as it is presented in *IUH* and *CB*, supported with reference to related remarks in *Ped*, *Anth*, *MM*, *CPJ*, *TPP* and *R*. Then I outline a new perspective on Kant's account of humanity that can complement emerging approaches.

##### 4.1 'Idea for a Universal History with Cosmopolitan Aim'

Like his pre-critical metaphysical works, Kant's *IUH* takes a wider point of view. He reflects on the dynamic development of humanity pressed out across space and time. Kant posits a teleological framework for nature: organic entities in nature are destined to develop their natural predispositions (*IUH*, 8: 18).<sup>11</sup> Yet the problem for humanity is that this process cannot be completed with one individual, let alone a generation, as our lives are short and filled with strife (Wood 1999: 211). Thus, we only perfect our full capacities as a species.<sup>12</sup> Kant thinks of this as a collective endeavour (8: 19).

Human progress requires intergenerational and international struggle, involving large social obstacles like war and political conflict (*IUH*, 8: 24). Though part of Kant's claim involves the idea of a cunning mechanism of nature whereby self-interested individuals fortuitously benefit the species, another important aspect of his philosophy of history involves the value of reflection for realizing our moral ends. Kant's teleological framework allows us to see from a broader philosophical perspective in which these two points are connected. As Herman suggests regarding *IUH*, 'seeing the social world as tending toward a final end is essential to making it true that it reaches it' (2009: 164). Louden underscores this in Kant's philosophical anthropology, remarking that his 'aim is to offer the species a moral map that they can use to move toward their collective destiny' (2000: 106). When humanity thinks in the long term through the framing of a regulative teleology, orientating its actions for the sake of perfecting the species, it can begin to actualize its potential.

For Kant, historic obstacles assist us in developing our predispositions. Climate change, like war and natural disaster, is an obstacle to progress.<sup>13</sup> But at the same time, through conflict and the pull of nature, we come to learn that progress requires the pursuit of enlightened community. Without collaboration, we cannot develop our rational predispositions as a species. Nature can only take us so far, but it does at least take us somewhere. Selfish conquests culminate in war, leading us to see the necessity for peace. Similarly, short-sighted disregard for our finite, collective home (cf. *MM*, 6: 352) culminates now in anthropogenic climate change, but in turn leads us to see the necessity for international collaboration. If Kant's historical framing narrative is adopted, the aspiration to a peaceful and sustainable world can be seen as not only possible, but required to realize our predispositions.

#### 4.2 'Conjectural Beginning of Human History'

Like IUH, CB adopts a wide perspective, focusing on humanity rather than individuals. Kant attempts to account for humanity's origins through a conjectural 'philosophy of nature' (CB, 8: 109). He speculates on how it was possible for humanity to begin developing its moral predispositions under the presumption of IUH's teleological conception of nature. Humanity, he suggests, progresses toward culture, moralization and ultimately political peace. In this human-historical process, humanity can view itself as a transtemporal and transnational collective. Instead of atomistic agents, we are simultaneously, at least in theory, united and future-directed.

In the 'pre-cultural' stage, humanity amorally obeys the 'call of nature' (CB, 8: 111). Once reason begins to stir within it, Kant narrates, humanity starts to make technical and prudential choices (8: 111–12). Humanity then experiences the first glimmers of the power of imagination and self-consciousness. This developmental stage engenders proto-moral figurations of love and beauty, shame and modesty (*Sittsamkeit*). Curiously, on Kant's view in CB, feelings of love and beauty with regard to humanity and nature are the earliest signs of moral consciousness (8: 113). Kant will explore this later when he makes connections between morality and love of nature (*CPJ*, 5: 267, 299, 380).

The next stage in humanity's moral development is the stage of culture. With culture and education (cf. *Ped*, 9: 443–4), humanity becomes aware of itself as a temporal, directional being. Moral consciousness arouses death-anxiety and a concern for posterity; the communal sense of care for humanity's future is, Kant reflects, important for awareness of our moral vocation (CB, 8: 113; *Ped*, 9: 449). Finally, humanity becomes cognizant of itself qua reason, deserving of dignity and respect as end-in-itself (CB, 8: 114). Kant very stoically asserts that we have not fully achieved this stage. That is, we have not realized culture in its enlightened, moralized form (8: 121; cf. Wood 1999: 298). As a collective-cultural obstacle, perhaps climate change is the impetus – the epoch-changing fork in the road – on that pathway.

#### 4.3 Climate change as a collective problem

In these works, Kant views humanity unlike the way a typical ethical individualist would. Instead, he frames it in a broader collective context. Since the ideas central to these works are only regulative, this collectivism should of course be understood as

a useful heuristic, namely, for realizing our moral duty to perfect humanity in harmony with nature (IUH, 8: 21; CB, 8: 123).<sup>14</sup> Now as moral agents, individual humans have duties of self-perfection. However, because perfection is obviously unattainable in a single lifetime, Kant's perfectibility injunction is pressed for the human species as a whole (IUH, 8: 18–19). From Kant's historical perspective, humanity is thus framed as a collectively united subject, and through this lens present generations ought to care for posterity (8: 27–8). In short, humanity can be seen as having one single, overarching *telos* that transcends individuals (cf. Ameriks 2009: 46), unites all humankind and enjoins our species to cultivate its dispositions toward goodness (8: 115, 120).

Humanity must direct itself toward a future of cosmopolitan solidarity (IUH, 8: 26), strive for global peace (TPP, 8: 362) and end institutions of domination (Herman 2009: 157). We must, moreover, work together to realize this task with long-term vision. IUH, suggests Ameriks, 'implies an ideal end that is pre-given for all of us, one that, in several senses, we "must" all work to bring about' (2009: 49). Every human has a duty to contribute to the progress of the species from worse to better: 'and each of us, for his part, is called upon by nature itself to contribute as much as lies in his power to this progress' (CB, 8: 123).

Our historical responsibility is thus to contribute toward the developing good of the species and for the betterment of the world, which Kant affirms in the *Pedagogy*. We must 'try to bring posterity further than [we ourselves] have gone' and take an interest in what is 'best for the world even if it is not to the advantage of [our] fatherland or to [our] own gain' (Ped, 9: 449, 499). States, we can infer, have similar responsibilities and can address institutional obstacles where individuals cannot (cf. Pinheiro Walla 2020). For, as quasi-moral agents, they have duties to their subjects and to the species. This injunction includes consideration to future generations, since each generational instantiation of humanity relates to the collective *telos*, and each has an obligation to contribute to its perfection. Such a task commands our respect and fills us with hope for future generations, despite the difficult reality of the situation (CB, 8: 113; IUH, 8: 28).

Viewed through Kant's historical philosophy, humanity is framed as a transtemporal, transnational agent: a 'macro end-in-itself' struggling with obstacles impeding its perfection. This macro agent, mediated through the present generation, must act for posterity as a necessary precondition for its 'health' as a continually developing entity; and this macro agent must not shirk its duties with regard to non-rational nature, relevant to its self-perfection. Both require reforming unsustainable institutions. In short, by adopting Kant's view in these texts, we can think of humanity as a *whole*, as both historic agent and patient. Kant's regulative lens, with its corresponding heuristic 'moral map', has value for rethinking climate change's collective problems, such as the institutional inertia discussed in section 2. I expand on this below.

#### 4.4 A new Kantian perspective on sustainability

As repeatedly emphasized in this article, climate change is a collective problem, requiring international and intergenerational effort. For this reason, it often sparks a sense of overwhelming hopelessness. Fortunately, one strength of Kant's teleological perspective is its emphasis on rational hope (Cureton 2018). Kant claims that, politically, we have 'a very rough project' ahead (IUH, 8: 28). Indeed, climate change,



like war, is a unique challenge and opportunity for testing humanity's mettle. War exaggerates humanity's unsociable tendencies but creates conditions for peace through its revelations. Conflicts often arise because we put our 'narrow and short-term interests before the long-term interests of mankind in general' (Williams 1983: 135). But realization of the unsustainability of these destructive tendencies by private citizens challenges humanity to become innovative and cooperative, and presses us to seek a rightful global condition. Similarities between war and climate in this regard give us hope that humanity may come to related technical and moral solutions.<sup>15</sup> Climate ethicist Stephen Gardiner's hopeful call for a 'global constitutional convention' sounds remarkably Kantian in this respect.

Kant's views on hope and political cooperation underscore an often-underappreciated long-term view of humanity. His views on progress, likewise, help us rethink his perceived individualism.<sup>16</sup> Kant warns that our intergenerational project will be arduous, yet we must remain courageous in the face of our responsibilities to improve culture and perfect the species (CB, 8: 115–17, 121). Furthermore, our moral vocation can only be realized if we strive together (*Anth*, 7: 323–5, *Ped*, 9: 445). Humanity's vocation includes not only self- and other-regarding duties, but pursuit of shared, collective ends (*R*, 6: 100–1; see also Wood 1999: 316). Thus, Kant's discussion of hope and moral progress naturally leads to considerations of humanity's overarching moral vocation, which, in light of climate change, can be directed toward ecological stewardship.

Critical stewardship enjoins us to rethink our relationship to nature, not as dominators but as stewards or members embedded in it.<sup>17</sup> Perhaps surprisingly, Kant rethinks humanity along these lines in several of his teleological works (*CPJ*, 5: 380, *UNH*, 1: 353–4). Stewardship does not concern mere reflection, however, but also actions and attitudes. For Kant, this involves duties of humaneness and love regarding non-rational nature (*MM*, 6: 443; *Eth-Vigil*, 27: 668–9). Without a stewardly shift – from both private citizens and institutions via more sustainable development – humanity will likely exacerbate climate impacts affecting others across the globe. Even worse, those contributing least to the acceleration of climate change will have their autonomy stifled most. This is because many regions subject to the worst impacts – e.g. droughts in Africa or sea-level rise in the Carteret Islands – have less responsibility in the way of historic and annual climate emissions. These impacts will at best constrain the external freedom of their citizens, and will at worst involve large-scale death and dependence. By contrast, geographically lucky wealthy nations, ones that have contributed more total and per capita emissions such as the US and the UK, will have an easier chance to adapt to maintain similar levels of autonomy.

Failures of stewardship and sustainable development fail our collective duty as articulated in Kant's historical and religious texts. Such failures also flout individual duties to agents whose autonomy will be blunted from climate impacts. Progress for Kant is two-fold: greater respect for agents and broader views of humanity as a species, including the need for moral, cultural and institutional maturation. Kant's unique vision – by refocusing humanity's vocation in collective terms and enjoining beneficent actions to promote progress – can thus be of use to facilitate the needed sustainable shift.

On Allen Wood's view, the kingdom of ends formulation demands that we unite our ends to attain a 'harmonious, organic system' (1999: 185). The end of one agent is tied

up with the aim of the species. Furthermore, perfecting the species necessarily concerns consideration of future generations, since they too are part of that living system. Though this aim is an ideal, approximating it remains unlikely with business-as-usual. Failure to address climate change precludes the moral harmonization of ends on a finite earth, and threatens a global state of nature. One way to avoid this is to think of humanity as *like* a single moral agent and patient, having duties toward itself as a whole. Since present generations are instantiations of this whole, they must uphold their duties not only toward themselves and others, but toward humanity as a whole. By ignoring the crisis, present generations thwart their macro self-regarding duties of perfection. Additionally, since duties of humanity as a whole toward itself are self-regarding duties for perfection, we can appreciate these as wide duties. So when there is a conflict between perfect duties to individuals and duties to humanity as a whole (e.g. regarding future generations), while the former have a claim to primacy, the latter should not be overlooked.

A virtue of this perspective is that it evades classic entanglements in ethical or metaphysical holism. For example, critics of environmental and Hegelian holism warn of reductionism. These may entail, worst of all, eco- and political fascist tendencies. Holists, by valuing natural or political systems over individual agents, could justify reducing those individuals to mere means. For individuals are like the organism's expendable cells. The regulative status of Kant's moral map helps evade this concern, as agents are not reduced, theoretically, to the cells of humanity writ-large. Rather, the Kantian picture sustains the practical worth of individuals, and appreciates them as embedded in historically evolving institutions and nations.<sup>18</sup>

To summarize, it is possible to read Kant's philosophy as enjoining collective duties toward the human species writ-large. This reading, first, helps us to reconcile the value of individuals framed in a collective context: we see ourselves as *relational* constituents of a species attempting to actualize its predispositions, mediated through cultures, institutions and nations. Second, this perspective can be mobilized as a heuristic for justifying institutional and lifestyle reform, and so can add to the new Kantian literature on climate change. Pinheiro Walla (2020) discusses the Kantian need to create *sustainable institutions*, Williams (2019) develops a new Kantian perspective on *collective harms*, and Bernstein (2019) discusses the role of Kantian *hope* and *cosmopolitanism* for climate change; all these accounts converge with my own in showing that it is fruitful to move beyond the *Groundwork* and *Critique of Practical Reason*, to (as already argued by others) his political, legal<sup>19</sup> and (as emphasized here) historical philosophy. Doing so is an important step for showing sceptics that Kant is an asset.

## 5. Geoengineering a better world? Objections and concluding remarks

In the Anthropocene, humanity now understands itself as a pivotal global force. Kant's humanistic anthropocentrism – a bane to critics of old – is a boon in this unprecedented age. On the political side, debate centres on humanity, with non-anthropocentric accounts dismissed. An approach that takes seriously the power and promise of humanity, such as Kant's, is therefore relevant. It is nonetheless reasonable to raise concerns.

First, Kant never talks about climate change or sustainability. Does not this interpretation bend Kant in exegetically inappropriate ways? But recall that philosophical

interpretation need not be confined to strict exegesis. There remains an alternative purpose for interpretation: the mobilization of philosophical ideas for their heuristic assistance with present practical problems. Both approaches are indeed connected, and the applied approach is consistent with the exegetical one insofar as the philosophical ideas must be there, present in Kant's works. As long as they are, the interpreter is free to engage them. This is no problem, because this interpretation has different aims than exegesis. Just as commentators employ Kant's philosophy to address issues he did not discuss, like healthcare and refugees (Altman 2011, 2017), it is also legitimate to pursue Kantian-inspired philosophical application for sustainability. Interestingly, Kant does discuss climate in his early natural philosophy works. There, he is sensitive to climatological dynamics, humanity's dependency on them and our capacity for environmental modification.<sup>20</sup> Taking Kant's philosophy further by relating its practical dimensions to our predicament is not as problematic as might appear.

Despite this, one may seriously worry about drawing from these works given implications that follow from Kant's view of progress.<sup>21</sup> One concern relevant to environmental philosophy and climate justice has to do with the implications of Kant's historical philosophy for geoengineering. This is *prima facie* worrisome for a variety of reasons, including the promotion of human 'mastery values' and an instrumentalist attitude toward nature, along with, as I emphasize below, neglect of those in the Global South.<sup>22</sup> It is true that Kant sees human progress in terms of incremental, qualitative developments in science, art and culture, or *civilization*.<sup>23</sup> Yet as a consequence, the more we progress culturally, the more we are obliged to modify nature for human ends. For Kant, progress does not consist in simplifying our lives, as Rousseau or Thoreau would urge. Rather, progress entails becoming more skilful at modifying nature.<sup>24</sup>

It is an easy step and a sensible worry: if the Kantian view encourages the modification of nature, it might be used to justify problematic geoengineering solutions. Most broadly, geoengineering is 'the intentional manipulation of the environment on a global scale' (Gardiner 2011: 340). However, as discussed in policy debates, geoengineering means extreme global intervention to preserve or prolong business-as-usual practices. These include technologies to absorb emissions (e.g. sea iron fertilization); to block solar radiation (e.g. space mirrors or atmospheric sulphate injections); and to remove carbon (atmospheric scrubbing machines). As global technological 'experiments', these will have many unforeseeable side-effects, since the planet is an interconnected system only partially understood; manipulating one part affects the earth-system in complicated ways, unlike our usual familiarity with technical manipulation.

Understood in the extreme sense outlined above, the worry is partly justified. Much like Marx after him, Kant thinks modifying nature is invaluable for humanity. To be sure, it does not follow that such modifications – to create a 'habitat for humanity' as Herman puts it (2009) – mean we are justified in treating nature poorly, blind to probable deleterious side-effects. For our obligations remain regarding non-rational nature, to not treat animals cruelly and beautiful flora instrumentally. However, although many geoengineering solutions are in principle compatible with Kant's view, on closer examination it becomes obvious that geoengineering tunnel-vision

conceals deeper maladaptive relationships with our human habitat and could itself create further catastrophes.

It seems reasonable that Kant, arch-nemesis of fanaticism, would never uncritically endorse such magical (or at least wishful) thinking. Instead, he would critically tend to its roots, framing possible solutions alongside their limitations in a wider context. Indeed, the Kantian way to address problems – a recurring lesson taught in the critical theoretical and practical works – is to reflect on the sources and preconditions of the issue being analysed. Such reflection may reveal that a contradiction is only apparent, or that a framework is hopelessly one-sided. For example, under the Humean perspective many problems with metaphysics make sense, while rationalistic perspectives are enticing for other reasons, despite their dogmatism. But as Kant shows, these are not the only plausible frameworks. Similarly, a technocratic mindset tends toward geoengineering by reinforcing the assumption of nature's instrumentality, but such a mindset conceals other equally plausible perspectives (for example, viewing nature less mechanistically and more organically). One-sided frameworks, even critical ones, readily succumb to the dangers of dogmatism. The wishful thinking of extreme geoengineering exemplifies this.

Of course, Kant would still aim to understand the increasing tendencies toward geoengineering in the context of his philosophy of history. Just as militaristic thinking functions to facilitate a learning process vis-à-vis war and peace, so also does technological thinking teach when appreciated in the right light. Humans are resourceful, especially in challenging environments, but there is only one planet; geoengineering solutions alone are unlikely, at least at present, to solve the crisis. They will, in the coming decades, be an inevitable factor in climate emission mitigation.<sup>25</sup> However, undue reliance on geoengineering betrays a cognitive blind spot, and this failed perspective has normative implications. These include epistemic obfuscation of the roots of climate change and, as it were, kicking the can down the road. The latter would exacerbate harms to those in the Global South and future generations. The window is closing, yet means for international collaboration are still available. Pursuing these may promote progress on a higher qualitative plane than intergenerationally and geographically short-sighted solutions.

Since the Kantian view encourages benevolent modification of nature, incorporating the conception of humanity writ-large can in any case add to current discussions of geoengineering in climate ethics. For on this position, it is only possible to justify geoengineering solutions if they account for the moral status of future humanity and those in the Global South. Many extreme geoengineering solutions threaten to gamble away the well-being of portions of humanity, and so at the very least require additional careful consideration. Such solutions are sometimes accepted as necessary on consequentialist modes of analysis. The Kantian approach could also justify geoengineering, but only insofar as it were sufficiently rational and mindful: rational, in not being ignorant of the relevant political, historical and institutional contexts, and mindful, in being considerate of the collective plight of humanity worldwide. Drawing from the long-range perspectives in Kant's historical philosophy takes the seeming liability of Kantian individualist 'mastery values' and transforms it into an asset.

## Notes

- 1 Kant has been historically marginalized in animal and environmental ethics (Singer 1990, Regan 2004, Hoff 1983, Rolston 1988). Defences of Kant include Altman 2011, Svoboda 2012, and Korsgaard 2018. For works on Kant and climate, see Schönfeld 2010, Rentmeester 2010, Frierson 2014, Bernstein 2019, Williams 2019, Pinheiro Walla 2020.
- 2 Climate ethicists often favour consequentialist analyses (e.g. Broome 2012). Treatments of Kantianism are typically dismissive (Jamieson 2007, Garvey 2008, Shue 2010, Gardiner 2011).
- 3 References to Kant's writings refer to volume and page numbers of the Academy edition, with translations from the *Cambridge Edition of the Works of Immanuel Kant* (Kant 1996, 2000, 2007). Abbreviations are the following: CB = 'Conjectural Beginning of Human History', IUH = 'Idea for a Universal History with a Cosmopolitan Aim', MM = *Metaphysics of Morals*, Anth = *Anthropology from a Pragmatic Point of View*, Ped = Lectures on Pedagogy, CPJ = *Critique of the Power of Judgement*, TPP = *Toward Perpetual Peace*, R = *Religion within the Boundaries of Mere Reason*, Eth-Collins = Collins Lectures on Ethics, Eth-Vigil = Vigilantius Lectures on Ethics, UNH = Universal Natural History and Theory of the Heavens.
- 4 Hoff (1983) presents a similar critique of Kant's anthropocentrism but has been less influential.
- 5 See the recent collection of essays, edited by Callanan and Allais (2020), on Kant's views of non-human animals for ways to problematize this view.
- 6 Consequently, those sympathetic to non-human concerns in environmental philosophy will find it easier to reject Kant without considering his value for present problems. See Vereb (2021) on critics of Kant in environmental philosophy, and an attempted rehabilitation of the pre-critical metaphysics. 7 Wood highlights Kant's 'consequentialism' regarding public communication (Wood 1999: 306). Cummiskey (1996) challenges Kant's 'nonconsequentialism', and Garrath Williams (2019) discusses collective harms associated with climate change. The last is similar in spirit to my reading in that it focuses on Kantian non-'individualism', though I highlight the historical and teleological works, especially Kant's idea of 'humanity', rather than institutions and moral complicity.
- 8 Though Rawls draws from Kant's thought, he rarely mentions Kant's political philosophy. This narrow view of Kant furthered by Rawls and others continues to be challenged (Habermas 1996, Waldron 1996, Ellis 2008, Ripstein 2009). Since Gardiner argues that Rawlsian individualism supports present institutions that engendered the crisis in the first place (2011: 230), it is reasonable to assume that commentators critical of Kant might see his thought in a related way.
- 9 Svoboda's indirect-duty account does not engage climate change, but this is understandable since most early objections originate in environmental, not climate ethics.
- 10 For good entry-points to Kant's legal and political philosophy, see Williams 1983, Ellis 2008, Ripstein 2009, Byrd and Hruschka 2010, Wood 2017. Bernstein 2019 also takes what she calls a 'broadly Kantian approach' in considering, on her view, the 'heuristic' value of Kant's historical and political philosophy for the crisis (2019: 98, 88). Unlike Bernstein, however, my approach focuses on humanity.
- 11 Human natural predispositions (*Anlagen*), fleshed out later in the *Religion*, include 'animality', 'humanity' and 'personality' (R, 6: 26). Animality as an existential predisposition concerns survival and welfare; humanity relates to the cultivation of culture and sociality; lastly, personality relates to autonomy and morality. These predispositions are to be perfected by the establishment of stable societies, scientific and artistic progress, and the moralization of citizens. As we will see, climate change, as an existential threat to human welfare, relates to animality; as a social threat, via civilization collapse and refugee crises, relates to humanity; and as a moral threat, tempting us to neglect our duties to others and humanity as a whole, relates to personality. See Wood on the 'technical' and 'pragmatic' predispositions in *Anth*, 7: 321–9 and their relation to the collective destiny of humanity (1999: 118–19, 210–12).
- 12 Individuals have duties of perfection that include cultivating physical, intellectual and moral faculties (MM, 6: 445–7). However, as Kant hints in MM and asserts in IUH, this obligation to perfection can only be completed with the species. With regard to application of concepts like 'perfection' and 'progress' to the crisis, it is perhaps best to leave their definitions open to interpret in context-specific ways. What it means to perfect humanity looks different from sub-Saharan Africa than in the UK, given differential resource constraints. This article underscores the spirit of Kant's philosophy, and not the exact letter, so I use the terms 'perfection' and 'progress' loosely.
- 13 The concept of 'climate change' viewed from a Kantian perspective is curious. Talk about climate change *qua nature* (from the teleological view of history) bears on the production of the unity of

humanity through international collaboration. On the other hand, climate change qua anthropogenesis is part of *humanity* (we created it, and hence have a responsibility to undo it, as those in conflict ought to pursue peace).

14 The harmony of nature Kant has in mind is likely not the view that environmentalists envisage, since it involves shaping nature to suit our moral and cultural needs. I address this in section 5.

15 The analogy only goes so far, however, since climate change presses us further: whereas Kant sees in war an active force of nature driving the species and our predispositions for animality and humanity, climate change differs since it requires not only the development and cultivation of civilization (which ‘artificer nature’ can do alone, *TPP*, 8: 361), but also moralization; technical solutions produced from unsociable competition alone will not cut it.

16 Kant’s conception of progress emphasizes the value of challenges. Section 5 addresses the concern that the crisis could lead to extreme geoeengineering rather than ecological stewardship.

17 By ‘stewardship’ I mean an attitude encouraging cultivation and growth, rather than mastery and subordination. It is possible for humanity to steward while still seeing itself as morally distinct. Still, I am optimistic that the moralization and aesthetic development of humanity will tend toward non-human protectionism. Recall, additionally, Kant’s disinterested or non-prudential valuing of beautiful flora, or of the gentleness and love demanded with regard to non-human animals and natural objects (Vereb 2019, *Eth-Vigil*, 27: 668–9, *CPJ*, 5: 267). It is true that Kant talks of mastery in the Doctrine of Right as the basis for property relations. It would be interesting to see whether Kant’s legal and juridical philosophy is compatible with stewardship, but I cannot pursue that here.

18 See Wood on related non-individualist aspects of Kant (1999: 204, 281, 289, 316).

19 See Ataner’s impressive MA thesis (2012) for a thorough exploration of Kant’s theory of property vis-à-vis environmental protectionism. Ataner focuses on *MM* and Kant’s ‘juridical postulate of practical reason’, whereas I focus on the historical works and Kant’s view of humanity. It would be interesting to contrast these works, though I cannot do this here.

20 For a good place to start, see Kant’s 1755 essay on the earthquake in Lisbon (1: 456) as well as the *Physical Geography* (9: 298).

21 I bracket questions considering the extent to which Kant’s system supports racism.

22 It has been well-documented that those in the Global South (including countries such as Nigeria, Haiti, India and Thailand) are in a uniquely bad situation vis-à-vis climate. From the normative perspective, not only have they emitted less, historically speaking, but they are – geographically and infrastructurally speaking – in tough spots with regard to human vulnerability. Further, their voices are often not afforded equal consideration to those in the Global North. Klein (2014: 256–61) recounts a harrowing instance of this at a 2011 geoeengineering meeting convened by the UK Royal Society. There, an African delegate voiced concerns of droughts likely to follow from the disruption of monsoon seasons in Africa and Asia as a result of a solar geoeengineering proposal.

23 See Ped, 9: 449–50 and 475 for sustained discussions of ‘culture’ relevant to the historical works.

24 Cf. humanity’s ‘technical’ predisposition regarding the manipulation of nature (*Anth*, 7: 322–3).

25 Not all geoeengineering is as experimental as ocean fertilization or stratospheric injections. Humanity has always engaged in natural modifications, as Kant suggests in CB. ‘Benign’ geoeengineering strategies are certainly compatible with the Kantian injunction to treat nature humanely. Examples include ‘green’ burials, reforestation and ‘green’ roof cultivation. These strategies encourage reconsideration of our relationship to nature, promise new opportunities for aesthetic reflection and buy us time to come to international policy agreements.

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