Individual Moral Duties Amidst Climate Injustice: Imagining a Sustainable Future

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Abstract

What should ordinary persons do about climate change, amidst circumstances in which climate injustice is widespread and state policies fail to require individuals to do their part to remedy this? Against Armstrong and Kingston, I argue that mitigation duties remain in force even under such conditions, and despite the negligible effect that any personal mitigation actions can have on global climate. Relying on an analysis of the enabling conditions necessary for challenging and ultimately transforming permissive pollution norms, and characterising personal mitigation actions as a form of resistance against such norms, I argue for an alternative foundation of individual mitigation duties beyond what is legally required and is typically found in consequentialist or deontological approaches to climate ethics.

Keywords

Climate Ethics; Injustice; Moral Duties; Permissive Pollution Norms; Sustainability

I INTRODUCTION

Despite the remarkable energies of those working towards the development of a fair and effective cooperative scheme by which the injustice of climate change might be mitigated, the prospect of averting the serious climate injustice that would result from 2°C of warming now appears grim. Caused by the anthropogenic emission of greenhouse gases and degradation of carbon sinks through land use changes like deforestation, climate change and climate-related harm has emerged as the foremost externality of affluence that now and into the future threatens the global poor, who are among the most vulnerable to its impacts.

Climate injustice manifests in two ways or at two nodes of anthropogenic climate change: in its causes and in its effects. Since climate change is primarily caused by the world's affluent persons and peoples, through their relatively high levels of energy use and other consumption footprints, the harm that it visits upon the vulnerable can be considered to involve injustice as a result of its inequality of causation, and is accordingly unjust to those suffering its ill effects even if all are equally vulnerable to them.

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Following egalitarian justice theories, which tend to focus on the allocation of goods rather than bads, unequally shared benefits are justly distributed only if this distribution benefits the least advantaged.¹ By the same logic, equally shared burdens would be unjust if disproportionately caused by the advantaged, as they make all people worse off and widen inequality insofar as the activity associated with their generation benefitted those generating them. Insofar as vulnerability to climate change is also unequal, with the poor and disadvantaged typically being the least resilient to the climatic changes that it is expected to bring about and therefore most vulnerable to harm, we may view it as unjust on both ends: the global affluent are disproportionately vulnerable to its insidious effects.²

Amidst this existing and now unavoidable climate injustice, the field of climate ethics has developed to ask: what should we do in response? Perhaps surprisingly, within a scholarly field devoted to exploring what ethical obligations arise among individual persons in their roles as contributors to climate change, the prescriptions for such responses vary widely and include the claim that no ethical obligation exists to do anything about climate change or the injustice that it involves.³ This prescriptive question is not merely one of academic interest, as many concerned citizens of various polities suspect that they have some kind of ethical obligations to do their part to mitigate climate change, with many acting upon this presumption. The challenge to show through theoretical analysis and argument whether they have obligations, and if so what they ought to do, might therefore perform the public service of articulating or clarifying what is a widespread (if not universal) popular assumption.

In this article, I shall attempt to answer that challenge of climate ethics, first by identifying a few key obstacles or issues in affirmatively positing individual mitigation duties, then through a brief engagement with a position that is provocatively sceptical of the existence of any individual ethical duties to mitigate our causal role in climate change, and finally by articulating a set of ethical responses that persons can and should take, given unavoidable climate injustice but in light also of these theoretical difficulties. In doing so, I assume that while some of our ethical duties with respect to climate change could and should be codified into law and enforced through policy, others operate beyond the domain of law, interacting with and shaping societal norms, informing our sense of the good life and good society, and being informed by our manifold (if unseen) connections with others.

¹ John Rawls, A Theory of Justice (Belknap Press, 1971).

² For example, in Steve Vanderheiden, *Atmospheric Justice: A Political Theory of Climate Change* (Oxford University Press, 2008).

³ For one collection that exhibits this prescriptive diversity, see S M Gardiner et al (eds), *Climate Ethics: Essential Readings* (Oxford University Press, 2010).

II CHALLENGES: AGENCY AND CAUSALITY

Over the approximately two decades in which climate ethics scholars have engaged with the question of individual mitigation obligations, several key challenges have arisen to the claim that individual persons have any obligations with respect to mitigating climate change or the harm that is associated with it. First among these is the difficulty in establishing the direct causal role of individual persons in climate related harm, which is sometimes taken to be a condition for attributing moral responsibility and is central to consequentialist ethical justification.⁴ In the case of many individual actions which result in greenhouse gases being emitted, the agency behind those actions is fragmented in such a way that individual culpability and even complicity remains in question.⁵ My decision to drive an internally-combusted automobile rather than walking or taking mass transit, for example, is partly a function of my transportation needs, which are a function of urban planning, housing prices and availability, my destination and needs in transport, and the availability and relative costs and convenient of my various options. It is a function also of the state of transportation technology and development of transit systems, policy choices on carbon taxes and congestion pricing for use of roadways, and the cost and availability of parking at my destination. In short, a great many other factors affect my decision on whether or not to drive, with my agency forming a relatively small and highly conditional fragment of the causal chain.

In sources of carbon emissions that result from collective rather than individual choices, such as those related to the manner in which electricity is generated, agency is far more fragmented, such that the direct causal role of the individual person cannot be sufficiently well established for what Young has termed the 'liability model' of responsibility.⁶ Insofar as my obligation to contribute some sort of remedy to climate-related harm is premised upon my being morally responsible for that harm, which in turn requires at least some causal responsibility for it along with some demonstration of fault in failure to avoid that causation, this fragmentation of moral agency has served as a major conceptual obstacle in climate ethics, to which scholars have over the past decade or so developed several innovative solutions.⁷ Whether through reformed conceptions of moral responsibility that admit less direct forms of agency or via ethical grounds

⁴ See, for example, Avram Hiller, 'Climate Change and Individual Responsibility' (2011) 94(3) *Monist* 349.

⁵ By 'complicity' I follow Kutz in identifying cases of accomplice liability without causal contribution, in order to capture the wide senses in which individual persons may be responsible for anthropogenic climate change. See Christopher Kutz, *Complicity: Ethics and Law for a Collective Age* (Cambridge University Press, 2007).

⁶ Iris Marion Young, 'Responsibility and Global Labor Justice,' (2004) 12(4) *Journal of Political Philosophy*, 365.

⁷ See eg Robert Goodin and Christian Barry 'Benefitting from the Wrongdoing of Others' (2014) 31(4) *Journal of Applied Philosophy* 363.

Individual Moral Duties Amidst Climate Injustice

other than consequentialism or moral responsibility for harm, many in the field have identified some remedial obligations (a notable exception to which shall be discussed below) despite this conceptual difficulty in ethical theory.

A second and related conceptual challenge has involved the diffuse causality associated with climate-related harm, where direct links between offending action and resulting harm are not present as effects result from large sets of similar actions. Since the impacts upon ecological and social systems associated with climate change result from the increase in atmospheric concentrations of greenhouse gases, and then manifest only as increased probabilities of severe weather events like droughts or floods occurring, the role of any individual person's polluting actions in causing any identifiable harm is vanishingly small and impossible to establish with any certainty. While a deadly hurricane may have caused very serious harm, we can only say that anthropogenic climate change may have increased its probability or severity, not that it caused it in the manner usually associated with moral responsibility, meaning that no individual human actions (even the actions of any single person over the course of a lifetime) could be causally linked as necessary or sufficient conditions to any instance of harm. Together with the fragmentation of agency, this diffusion of causality has frustrated efforts within climate ethics to establish the kind of moral responsibility that is often viewed as a necessary condition for establishing individual mitigation obligations, prompting Gardiner to decry these theoretical shortcomings as the 'perfect moral storm' within the ethics of climate change that he blames for the moral corruption of our norms and institutions.⁸

These theoretical obstacles to establishing individual moral responsibility for mitigating climate-related harm, as through duties to reduce personal carbon footprints, have perhaps most forcefully been claimed by Armstrong in 2005,⁹ and then defended against more than a decade's worth of efforts by other climate ethicists to circumvent his objections or find some other way of establishing such obligations in a recent paper by Armstrong and Kingston.¹⁰ As they conclude:

Approaches that try to show an adequate connection between single acts of emitting and the bad effects of climate change must deal with the fiendish complexity of the causal pathways connecting emissions with extreme weather events and gradual harms. Approaches that stress new green virtues will find it hard to justify genuine moral requirements to refrain from emitting rather than pro tanto moral reasons to do so.

⁸ Stephen Gardiner, A Perfect Moral Storm: The Ethical Tragedy of Climate Change (Oxford University Press, 2011).

⁹ Walter Sinnott-Armstrong, 'It's Not My Fault' in David Morrow (ed), *Moral Reasoning* (Oxford University Press, 2005), 293.

¹⁰ Ewan Kingston and Walter Sinnott-Armstrong, 'What's Wrong with Joyguzzling?' (2018) 21 *Ethical Theory and Moral Practice* 169.

Approaches that focus on the political solutions needed have to show why there is a necessary connection between our political goals, and individually mimicking the behaviour that if normalised, would meet the goals. Such approaches also need to guard against the encroachment on personal freedom that a full integration of lifestyle and politics would require. These hurdles are not obviously impossible to jump, but current work has failed to clear them.¹¹

While the authors are careful to claim only that existing attempts to show that there is a moral duty to refrain from joyguzzling (the gratuitous consumption of petroleum while driving for pleasure rather than necessity) have failed, and not to make the broader claim that the excessive use of fossil fuels or generation of greenhouse gases could not be wrong under any plausible moral theory, their paper's inverted triumphalism in declaring all rivals to be mistaken has nonetheless been interpreted as such. Despite their misgivings surrounding such a conclusion, Armstrong and Kingston claim that theoretical shortcomings in the way that persons are connected to environmental phenomena like climate change have prevented climate ethics from establishing this basic moral judgment about mitigation duties within the confines of the ethical theories that it employs.

One strategy, which is noted by Armstrong and Kingston but dismissed for failing to ground sufficiently strong prohibitions against joyguzzling, has been to rely upon a virtue ethics approach in treating an excessive personal carbon footprint as incompatible with an ethically virtuous life.¹² Such an approach would regard the unilateral individual effort to reduce one's carbon emissions as praiseworthy but the failure to do so as not in violation of any ethical principles or precepts. By focusing upon the good life of the individual rather than the legal or institutional structures of the state or society, a virtue ethics approach like this one could be viewed as apolitical and ultimately uninterested in effectively addressing climate change through the policy measures necessary for reducing its causes or mitigating its effects. We can live virtuously within a society that fails in its collective ethical obligations, it insists, but we do not act wrongly if we fail to do so and our solitary dissent would achieve little benefit for the global climate or for those now vulnerable to expected anthropocentric disruptions to its stability.

Another strategy for disentangling individual moral obligations from those assigned to collectives like states asks what persons should do as individuals given the failure of their resident states from enacting applicable policies or otherwise having taken adequate steps to address climate change at the collective level. Cripps refers to these as 'mimicking duties' and endorses them as fulfilling an obligation to satisfy a kind of

¹¹ Ibid 185-6.

¹² Allen Thompson and Jeremy Bendik-Keymer (eds), *Ethical Adaptation to Climate Change: Human Virtues of the Future* (MIT Press, 2012).

categorical imperative that applies whether or not others behave in the same way.¹³ Unlike a virtue ethics approach, these mimicking duties would assign to persons the responsibility to limit their carbon consumption to that level which would be assigned to them under a just social allocation of individual carbon budgets or assignment of individual mitigation duties, regardless of whether any such collective mitigation response has been enacted, and would (unlike the virtue ethics approach) have the status of a moral obligation that it would be wrong to disobey and not merely praiseworthy to follow. One might, for example, identify the sustainable individual carbon footprint in terms of an equitable share of humanity's allowable annual footprint, itself calculated in terms of the declining share of carbon that can be annually released without imperilling mitigation targets like those set under the Paris Agreement.¹⁴ Here, one's obligation would be to adhere to an equitable annual individual carbon budget – say, for example, two metric tons per capita – regardless of what others do.

Here, we can act ethically in an unethical society, but our action is not linked to what would be necessary for *bringing about* that ethical response on a collective scale, and in that sense maintains the solipsism of the virtue ethics approach, seeking mainly personal redemption in the face of social failure of acting from Kantian duty rather than through the motive of preventing harm or redressing injustice. While Cripps also argues that we have promotional duties to do our part in establishing just institutions, to which I shall return below, suffice for now to observe that what we do to reduce our carbon emissions and what we might do to bring about state policies through which others are required to do the same are for Cripps two different questions and involve two distinctive kinds of required actions. The former relies primarily upon individual agency, whereas the latter aims to construct a kind of collective agency through which persons transcend some of the limitations noted above and begin to act cooperatively in pursuit of collective aims, even if as part of a collectivity that is not intentional and one that no member recognises as such. As I shall argue further below, my view shares with Cripps the judgment that we ought to take personal mitigation actions even if not required by law or policy to do so and even if those around us do not, and that we also ought to work toward the establishment of institutions capable of preventing or redressing climate injustice. However, our views diverge in the reasons why we ought to do so, and in the dynamics by which our actions are connected to the kind of collective remedies that are mostly likely to be effective on a wide scale.

¹³ Elizabeth Cripps, *Climate Change and the Moral Agent* (Oxford University Press, 2013) 116.

¹⁴ Jörg Tremmel and Katherine Robinson, *Climate Ethics: The Climate Change Conundrum* (Palgrave Macmillan, 2014).

III ENABLING CONDITIONS AND INITIATING COOPERATION

Individual ethical responses to climate change need not be limited to voluntary and uncoordinated personal mitigation actions undertaken in isolation from others, however. One may view the individual's duty as one of catalysing the actions of others rather than acting only individually, as Goodin defends in the context of the shallow pond case, in which bystander obligations to rescue (originally conceived as a metaphor for the delivery of famine aid) are cast in terms of their respective costs and benefits for an imperilled victim and a single would-be rescuer.¹⁵

Suppose that we cannot rescue the drowning child on our own.¹⁶ Goodin suggests, requiring instead the assistance of at least one other rescuer to act in coordination with our efforts, without which our individual action would be futile. Assuming further that we cannot be obligated to engage in futile solitary but unsuccessful rescue efforts, he argues that it would appear that each of us could by this converse of 'ought implies can' be excused by the reluctance of others to participate in a joint rescue effort. With two potential rescuers on the scene, each would be morally obligated to join the joint rescue action once the other initiated it, at which point the second rescuer's failure to act would be responsible for the death, but each would also paradoxically be excused so long as the other refused to act. In such a case, Goodin argues, it would not be enough simply to wait for others to initiate joint action, as both would-be rescuers deferring to each other would fail to initiate the necessary cooperation. Instead, each has the obligation to offer it under conditions of reciprocity: to offer 'I will if you will'.

This offer of reciprocity initiates the joint action that allows for a rescue which would not be possible for any of us as an individual, providing an analogue to the role of the individual in responding to climate change. None of our personal mitigation actions, undertaken in isolation from others, can make any palpable difference in reducing the probability or severity of climate-related harm,¹⁷ and as noted above ethical theory is bereft of conceptual resources for finding us complicit in harm that would have taken place even without our participation in the causal chains that produce it. As Goodin suggests, sometimes the most important effect of our individual action is produced on other would-be rescuers, through the initiation of potentially effective cooperation, and we err in our moral reasoning if we expect the only relevant effect to be directly upon those in

¹⁵ Robert Goodin, 'Excused by the Unwillingness of Others?' (2012) 72(1) Analysis 18.

¹⁶ The reference to a moral dilemma involving a child drowning in a shallow pond, with a single would-be rescuer, owes to Peter Singer, 'Famine, Affluence, and Morality' (1972) 1(3) *Philosophy and Public Affairs* 229.

¹⁷ Against the effort to resolve individual contribution toward climate-related harm to an act utilitarian calculus, see Bernward Gesang (2017), 'Climate Change – Do I Make a Difference?' (2017) 39(1) *Environmental Ethics* 3.

need of rescue. It is therefore through our relationships with others and the solidarity that reciprocal joint action involves that we might reconsider individual ethical responses to climate change, and ultimately for how collective action gets initiated.

While his analysis helpfully broadens the focus of climate ethics by considering how one person's actions may change another's obligations, as well as how the objective of ethical action can be further action by others rather than a more direct consequence or impact, the specific case that Goodin discusses is in several key ways disanalogous to the role of the individual in climate change. In his stylised case, the coordinated actions of two rescuers is necessary and jointly sufficient, so we would be obligated to join in a rescue only under the condition that one other rescuer was present and had initiated or offered their cooperation. The case becomes considerably more complicated if many other would-be rescuers are equally well placed to join. In the event that two persons had already initiated the rescue, a third would just get in the way and contribute little toward the outcome. Only until a sufficient number of rescuers is reached, no matter what that number is, would we be obligated to offer our contributions and join in the effort so long as it appeared that enough volunteers could be organised among those available. We would have no obligations after that sufficient threshold was reached. As the number needed for a successful rescue grows larger, our ability to readily ascertain that enough would-be rescuers are available to join in a cooperative effort but that the sufficiency threshold has not yet been exceeded becomes progressively more difficult, reducing the moral clarity of Goodin's twoperson rescue.

Since the drowning victim either drowns without a successful rescue or is fully saved with one - there is no middle position by which half of the necessary rescuers reduces the drowning to a serious injury, or additive benefit through which double the number of needed rescuers not only prevents the drowning but also gives the spared victim some new super powers - the binary nature of the two shallow pond outcomes contrast with the more linear nature of climate-related harm, in which more rescuers would be expected to mitigate the climatic events that cause harm but not eliminate them. A further relevant contrast is thus that in the context of climate change, our individual mitigation actions can never be either necessary or sufficient from the perspective of their consequences. For any given desirable outcome, such as the prevention of warming beyond 2°C or of ocean acidification at a level capable of bleaching the Great Barrier Reef, our participation in a collective mitigation effort on a planet of seven billion other humans is unlikely to affect that outcome's achievement. Most likely the joint rescue will be insufficient, as others will not have undertaken enough mitigation actions before we begin our own to attain the objective, so our contribution will have been futile, which in Goodin's case would excuse our refusal to join. Similarly, if sufficient others had

already done enough without our joining the rescue, as our additional contribution would again fail to make any difference in bringing about the desired outcome. While one might reply that the linear nature of climate-related harm entails that our additional contribution could result in marginally less climate change in either case, recall that a single individual's carbon emissions are highly unlikely to make any difference in climate outcomes, undermining the force of consequentialist analyses such as these, whereas the moral force of Goodin's obligation to rescue was based upon the respective consequences of initiating the joint rescue and failing to do so.

But this lack of a direct causal relationship between individual mitigation actions and the experience or avoidance of particular climate-related harm also frees our analysis of the constraints posed by necessity and sufficiency in conventional ethical analysis. We are all bound up in a collectivelycaused disturbance to the climate system that manifests in many harmful impacts but which does not reduce to any necessary or sufficient contributions by any members of that collectivity: our agency is fragmented and the causality diffuse. It would be to commit what Parfit terms a 'mistake in moral mathematics' - that of conflating miniscule and imperceptible effects with no effect¹⁸ – to maintain that climate change is caused by a set of like acts but that none of those actions taken in isolation played any causal role in the outcome, but we cannot from our collective responsibility precisely determine exact remedial duties from which either necessary or sufficient individual contributions could be assigned. It therefore cannot be a matter of direct causal avoidance of any specific harm resulting from our individual mitigation actions that we have some role in contributing toward collective remedies, if we do. We must look elsewhere than this kind of consequentialist logic for the basis of such mitigation obligations. In so doing we can also avoid the inadequacies of those ethical theories that are noted above, and which play so prominent a role in the scepticism of Armstrong and Kingston.

IV RESISTANCE TO INACTION

As Armstrong had earlier argued, while we may not have ethical obligations to refrain from joyguzzling in the absence of laws preventing us from doing so, we may have some duty to help change the laws, which if acted upon would make our further gratuitous emission of carbon wrong.¹⁹ Insofar as our duties of justice require us to support and comply with just institutions where those exist and to assist in establishing them

¹⁸ Derek Parfit, *Reasons and Persons* (Oxford University Press, 1984) 75.

¹⁹ Kingston and Sinnott-Armstrong, above n 9.

where they do not,²⁰ we could, as Armstrong implies, be obligated to work towards bringing about a regulatory prohibition of joyguzzling, even if as he claims the practice remains morally permissible in the meantime. Cripps also argues for promotional duties to establish just institutions alongside the mimicking duties of mitigation discussed above, as policy change is widely viewed as necessary for states to successfully reach their decarbonisation goals.²¹ But as most individual persons are as powerless in altering the institutional or policy landscape of their resident states as they are unable to unilaterally prevent climate-related harm, it remains unclear how this change in focus provides much clarity for directing individual action in the context of climate change or climate policy.

The key mediating role between individual action on climate change and the adoption of state policies to more effectively address it is played by social norms, which persons reinforce through their adherence but can challenge and disrupt through their public violation. With 28 years having elapsed since the publication of the first Intergovernmental Panel on Climate Change assessment report linking human activities to dangerous climate change, the received view within climate ethics is that it is no longer reasonable for states to claim ignorance of the causes and effects of climate change as an excuse for their further inaction.²² Since 1990. norms allowing for excessive individual emissions like those resulting from joyguzzling have been both cause and effect of inadequate state mitigation actions: they enable state failure to take climate change seriously because public attitudes and beliefs supporting wasteful polluting activities have provided no disincentive to this ongoing failure, and they result from what is taken to be a tacit public permission to emit these pollutants signalled through the absence of effective state regulatory actions. Norms exist in a symbiotic relationship with applicable laws and policies (or lack thereof), providing mutual support and together reinforcing the status quo. Transition to a low-carbon society therefore faces twin obstacles in policies and norms that are each permissive of excessive carbon pollution, with little prospect of effective policy change while norms remain.

Where individual persons may lack the ability to successfully resist the absence of effective laws or policies – it is, after all, more difficult to resist permissions than prohibitions, as refusing to do what the law allows makes for ineffective civil disobedience – those same persons might more successfully resist the norms that continue to support this state inaction. By seeking to reduce our personal carbon footprints through reformed consumption patterns, we do nothing to challenge state policies that owe to the well-financed and organised interests of fossil fuel industries, against which our personal withdrawal from participation in that fossil fuel

²⁰ Rawls, above n 1.

²¹ Cripps, above n 13.

²² See, for example, Derek Bell, 'Global Climate Justice, Historic Emissions, and Excusable Ignorance,' (2011) 94(3) *Monist* 391.

economy would register no alarm in the halls of government power. But norms are built upon a different kind of foundation than are laws and policies. Social norms governing rates of carbon pollution are often more vulnerable to small acts of resistance than are policies permitting that pollution, since those acts of resistance also call into question the norm itself, and since the audience for acts of resistance against social norms is one's peer group in society that looks for social cues on how to respond to climate change, rather than the politician stockpiling an election war chest.

Like Goodin's offer of 'I will if you will', each act of defiance against permissive polluting norms makes further defiance easier for others. A commute in which each student or worker drives separately in their own private automobile is most difficult for the first walker or cyclist, whose different mode of transport stands out from the norm and is least likely to be accommodated with safe paths or facilities, not to mention the suspicious glances of those peers unaccustomed to such abnormal behaviour. However, this commute becomes easier for each subsequent defection from the driving norm. Those first seeking to power their homes with zero carbon sources of electricity like wind or solar likewise make this option easier for others to follow, not only from the economies of scale that they help to establish but by also challenging received norms and in so doing providing examples for those that might wish to challenge them later. In both cases, those seeking to reduce their personal carbon footprints while challenging the social obstacles to broader and collective action need not challenge a particular law or policy, but instead challenge norms regarding avoidable activities that yield significant carbon emissions, and in the process herald the way for others to join them in doing so.

At issue are enabling conditions for effective mitigation actions to be taken on a wider scale, which include senses of personal efficacy and moral necessity. For many persons, the ability to cooperate in collective efforts that yield benefits for group members is a function of enabling attitudes and beliefs about what is possible. In some cases, these attitudes and beliefs are part of a more generalised sense of social and political efficacy, and therefore dependent upon the possession of key power resources and positive former experiences with social change.²³ Elsewhere they are specific to the nature of a challenge like climate change, which can strike many as uniquely impenetrable and thus beyond the ability of any person to meaningfully affect, especially given its massive scale and the entrenched nature of its causal forces. Overarching both is a sense of collective efficacy - or, as it manifests in its absence, a sense of powerlessness - that can either assist in or hinder the formation of collective and cooperative efforts that rely in their initiation upon a shared set of beliefs about what the collectivity aims to accomplish and the means

²³ Mary R. Anderson, 'Community Psychology, Political Efficacy, and Trust,' (2010) 31(1) Political Psychology 59.

by which its objectives might be brought to fruition. In simpler terms, we cannot bring about a better future unless we can compellingly imagine ourselves doing so.

With such enabling conditions in place, and with the enhanced prospects for cooperative action that they allow, our individual mitigation actions need not be ethically vindicated by their effects upon global climate, which as previously noted are negligible, but rather in terms of their effects upon others, and especially through the construction of a low-carbon public imaginary.²⁴ In this way, sustainable consumption norms can be diffused and unsustainable ones can erode through a process of contagion and through the occurrence of norm cascades, in which new norms emerge, come to be accepted on a wider scale, and begin to challenge entrenched ideas about how to live and to offer what is viewed as a valid and attractive alternative.²⁵

Originally identified as a dynamic within international relations, where 'norm entrepreneurs' could introduce new norms for international politics and the cascade effect results in new norms being instantiated by their link to the identity of relevant actors and the formation of collective interests around them,²⁶ a similar dynamic can be observed within societies. Just as unsustainable consumption norms spread by contagion, as our desire to emulate the consumption behaviors of our peers has us 'keeping up with the Joneses' by matching their purchasing habits, so also can sustainable consumption choices spread by a kind of demonstration and witnessing sequence, and opinion leaders or influencers show that low-carbon alternatives to mainstream consumption choices are available, not overly difficult or costly to adopt, and thus an attractive option. By this process those options become socially acceptable.²⁷ Consumption behaviours in particular are often shaped by norms rather than strictly material interests, and these can include sustainable consumption norms with explicitly ethical content rather than the primarily hedonistic values more commonly associated with consumption norms promulgated by advertisers.

²⁴ See, for example, C Cherry, C Hopfe, B MacGillivray, and N Pidgeon, 'Homes as Machines: Exploring Expert and Public Imaginaries of Low Carbon Housing Futures in the United Kingdom,' (2017) 23 *Energy Research and Social Science* 36.

²⁵ I borrow this terminology from Martha Finnemore and Kathryn Sikkink, 'International Norm Dynamics and Political Change,' (1998) 52(4) *International Organisations* 887. My usage refers to consumption norms operating within society, whereas they describe the life cycle of norms within international relations, but both view the norm as an idea that begins to exercise independent force to condition the behavior of actors within institutions upon a sufficient number of relevant actors subscribing to or upholding the norm, which is what I intend to argue for here.

²⁶ Alexander Wendt (2001), 'Driving with a Rearview Mirror: On the Rational Science of Institutional Design' (2001) 55(4) *International Organisation* 1019.

²⁷ On this contagion effect in norm transmission, see Francesca Gino, Shahar Ayal and Dan Ariely, 'Contagion and Differentiation in Unethical Behavior: The Effect of One Bad Apple on the Barrel' (2009) 20(3) *Psychological Science* 393.

Gradually, this form of resistance becomes so easy to practise that it is no longer stigmatised and becomes more widely available.

At the present time, decarbonisation actions may contribute towards norm resistance and transformation, but only when done as a public act of defiance against insidious contrary norms, rather than as a private act of disavowal of those dominant norms or withdrawal from public life.²⁸ Consider again the mimicking duties of someone who pledges to perform what would have been required of them had their government pledged a national carbon footprint that was compatible with the demands of climate justice and had followed through with that pledge. Living in the contemporary United States, where governments at all levels have failed to place sufficient controls on carbon emissions and the state itself has defected from the Paris Agreement in an apparent confrontation with climate science and international cooperation, I may opt into some personal commitments by which I reduce my own carbon footprint by the 60 per cent that scientists call for as necessary for avoiding 2°C of warming (or alternatively adopt a sustainable carbon footprint that is compatible with all other humans having the same footprint while avoiding that global temperature increase). In this way, I do what I believe I ought to be compelled to do as a matter of public policy, but without the benefits of reciprocity from my fellow members of the polity or the low-carbon infrastructure that would be available if made the object of public investment.

If I was to do this in a manner that is largely private – invisible to my peers and neighbours, and through actions undertaken without any kind of public justification in terms of obligations to personally do my part in mitigating climate change - the effects on climate change, as well as upon social norms of a sense of personal efficacy for the next person attempting this costly form of atonement or absolution, would both be negligible. Nobody that I could potentially influence would know what I was doing or why I was doing it. But if my actions and their justification were made more public, so that others could view my decarbonisation efforts and understand why I was undertaking them, they could be performative and exemplary, and potentially also become contagious. While I may be mocked for refusing to conform to consumption norms that others follow, regarded as an odd and potentially dangerous social outlier, or viewed as a threat to the dominant construction of prosperity and public morals, this public act could potentially have a non-negligible effect upon the enabling conditions for others taking their own form of personal mitigation actions, even if it still had the same negligible effects on global climate. In addition to the Kantian foundation for mimicking duties of mitigation, where the duty to perform such personal mitigation duties arises from obedience to a

²⁸ Kimberly Brownlee, *Conscience and Conviction: The Case for Civil Disobedience* (Oxford University Press, 2012).

categorical imperative and regardless of whether or not social laws or policies require it, one might also ground such duties in their effects upon others, and specifically in disrupting and challenging pro-pollution norms.

Of course, voluntary and solitary mitigation actions won't stop climate change, so the point of engaging in them cannot be merely to allow others to follow suit with their own solitary and voluntary actions. Rather, such actions could be construed as a sincere offer to cooperate in an endeavour that could have been compelled through public policy, but wasn't. It is an offer of 'I will' that precedes the 'but only if you also will' condition of Goodin's reciprocity, a public demonstration of the need for and power of cooperative action. This demonstration may be able to resist the form of powerlessness that accompanies the inertia associated with an opportunity to cooperate for the greater good that no one has yet initiated, and where the costs associated with trying to break that inertia appear unattainably high to many others.

V CONCLUSIONS: IMAGINING A SUSTAINABLE FUTURE

So what should we as individual persons do in the face of anthropogenic climate change amidst the unwillingness of our public officials to respond adequately to it? First, we must resist both the pollution-enabling social norms that contribute to unsustainable consumption patterns and the carbon pollution that results from them, and resist also the sense of powerlessness that often accompanies large scale and diffuse social-ecological problems that governments are ill-equipped to remedy. We must resist, that is to say, the belief that injustice exists, but we cannot do anything about it, which can be more insidious and erosive to meaningful collective action than is climate denial, which rejects the antecedent and so avoids the ethical quandary. Beyond resisting, which is negative and deconstructive by its nature, we have positive and constructive duties that are only made possible by virtue of what has been resisted and displaced.

We have, that is to say, promotional duties to contribute towards foundational norms by which the transition to a sustainable society becomes feasible, and through which a sense of collective efficacy might arise, as our primary responsibility. It is only secondarily, through the just and sustainable future that we imagine and enact by way of these primary responsibilities, that we contribute toward the establishment of just institutions, or those necessary for implementing the imperatives of climate justice. Here, institutions follow the establishment of a set of attitudes and beliefs that will ultimately support them, rather than leading them. Whether through public construction of a low-carbon imaginary that results from our conspicuously committed acts of personal mitigation, in resistance to dominant consumption norms that would reject such acts as unnecessary or abnormal, or through social organisation and communication of alternative forms of low-carbon flourishing, we can contribute to the

institutions that are necessary for bringing about a different future, by demonstrating their practical and ethical necessity.

These are ambitious duties, in some ways far more so that those concerned primarily with avoiding causal contributions to climate change. Arguing for personal carbon neutrality, to be achieved through the substitution of low-carbon activities and technologies for their high-carbon alternatives and supplemented by the carbon offsets, Broome details an approach to individual mitigation efforts motivated by the 'duty of justice not to harm, rather than the aim of improving the world'.²⁹ As suggested here, this relegates personal mitigation to a private action, and represents a form of withdrawal from politics rather than in an engagement with it. Avoiding complicity with climate injustice by ceasing our own personal contributions may be a salutary start, and for many constitutes a difficult and admirable task, but insofar as such actions remain our own and we forego the opportunity to challenge prevailing norms and to influence others, they constitute a missed opportunity. Amidst climate injustice, we must not abandon 'the aim of improving the world', no matter how impossible such a task might seem, for in doing so we contribute toward the paralysing sense of powerless that keeps many others from being able to imagine a different future, much less work toward helping to create it. Rather, we should see those acts as constructing and living an alternative future that comes about because we can imagine it and appreciate what is required to make it a reality.

²⁹ John Broome, Climate Matters: Ethics in a Warming World (WW Norton and Co, 2012).