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**Levels of Climate Action**

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Climate action of different sorts is possible for national governments, for individual persons, and for various other intermediate agents – collective agents operating at a subnational level, such as regional governments, cities, corporations, and non-government associations of various kinds.[[1]](#endnote-1) Given these three levels of agency – national, intermediate, and individual – what climate duties are located at each level, and what is the relationship between them? An initial answer is this. The principal bearers of climate duties are national governments. Solving the global collective action problem of anthropogenic climate change will require an international climate agreement; national governments are the parties who must reach it. Their duties are duties of difference-making: duties to do what will make a great difference to the welfare of current and future people.[[2]](#endnote-2) Intermediate and individual agents then have derivative climate duties – duties deriving from their relationships to the actions of national governments. The climate duties of intermediate agents are duties of influence: duties to perform those actions that, through incentive and example, can influence national agents to solve the global problem. And the climate duties of individuals are duties of participation: duties to join in collective actions initiated at higher levels, complying with the regulation of our consumption activities in the ways needed to mitigate, and ultimately solve, the problem.

 This initial answer is wrong. The main aim of this paper is to explain the ways in which it is wrong, and to formulate a better view. Nonetheless, it is a useful starting point for thinking about the different climate duties that apply at different levels of agency. The three kinds of duties it emphasizes are importantly distinct, and it is by seeing what needs to be added to and subtracted from the initial answer that we best approach a more adequate one. I hope to vindicate this approach as I go, by showing that it is fruitful. After beginning with a fuller description of the initial picture and the three kinds of duties it ascribes, I work through each of the three levels of climate agency in turn, explaining how the initial answer needs to be improved. The last section summarizes the alternative picture that we arrive at if we make these improvements. It is a more complicated picture: while the duties of lower-level agents do depend on their relationships to higher-level ones, the reverse is also true; and while duties of difference-making and influence are important, I shall be arguing that the principal climate duties of agents at all three levels are participatory.

**I: The Initial Picture**

In between the international and individual levels of agency, I am grouping together a variety of other agents as “intermediate”: regional governments, cities, corporations, and non-government organizations. This may seem misguided. Measured in terms of economic size, the biggest “intermediate” agents dwarf the smallest countries. California’s GDP is $2.75t, just below that of France on the international scale. The economically smallest nation, Tuvalu, has a GDP of $38m, forty times smaller than that of Tokyo and 70,000 times smaller than California’s. Given this, it may seem muddled and unhelpful to specify the “levels” of climate action as I have, placing California at an intermediate level between Tuvalu and individuals. No doubt, some individuals spend more than $38m in a year.[[3]](#endnote-3)

 However, the point of this classification is not to grade agents in terms of their economic power. It is to identify the kinds of climate action that are available to different kinds of agents, the morally relevant reasons there are to perform those actions, and consequently the kinds of duties that they bear. The stringency and scope of an agent’s duties depend on which actions the agent is able to perform. Economic capacity is relevant to this – we will come to that later – but so is normative capacity. Some actions are only available to agents with the right kind of authority to perform them. In the case of climate action, it is only national governments that are qualified to be parties to an international treaty; intermediate agents, whatever their economic size, are not. And intermediate agents, disparate though they are, possess capacities for action that individuals lack (when acting *as* individuals rather than as institutional role-bearers): capacities that include representation, coordinating the efforts of individuals, and authority over them of various forms.

 The initial picture of the allocation of climate duties from which we will be working emphasizes this difference between the actions available to agents at the three levels. It relies on a diagnosis of what the problem of anthropogenic climate change fundamentally *is*: namely, a global collective action problem.[[4]](#endnote-4) We all inhabit an economic order in which the environmental cost of each agent’s resource use is largely externalized – most of the cost of each agent’s action is borne by other parties.[[5]](#endnote-5) Some of the bearers of that cost are our contemporaries; many more will bear the much greater costs that are projected into the future.[[6]](#endnote-6) Large-scale collective action problems of this form need to be solved by imposing effective regulation: here, since the problem is global, the regulatory solution has to be global too. What we need to achieve is a binding international agreement that limits future global greenhouse gas emissions to sustainable levels through the application and enforcement of effective economic incentives and supply-side restrictions.[[7]](#endnote-7)

 It is natural to treat the allocation of duties in this case as following the same pattern that we find in other collective action problems. For example, suppose our town’s water supply is limited, and with unregulated water usage we face the prospect of running out. We need the municipal authorities to introduce a scheme of water restrictions. In this sort of situation, the allocation of duties is evidently this: the municipal government has a duty to implement a scheme of water restrictions; other influential agents (such as the local health authorities) have a duty to use their influence to get the government to do this; and individual water consumers have a duty to comply with the restrictions once implemented.

 The initial picture makes the corresponding allocation of duties in response to our global collective action problem of climate change. The agents with a duty to solve the problem are national governments. They are the agents in whose power it lies to form the international agreement that will constitute the solution we need. Agents at the other two levels, since they are not potential parties to such an agreement, do not bear those duties. However, they are able to support a global climate solution in two other ways. Intermediate agents, given the scale on which they operate, have the capacity to influence national governments to reach the agreement we need; and individuals can conform with it once it is reached. Individuals will then acquire duties to participate in a regulatory solution; but no individual has a unilateral duty to adopt the constraints that would make sense as part of that regulatory solution, prior to its adoption – any more than I have a duty not to water my lawn prior to the implementation of municipal water restrictions.[[8]](#endnote-8)

 We can sharpen this picture by introducing some terminology. “Duties of difference-making”, we can say, are duties to produce positive impacts and avoid negative impacts on others’ welfare. If we are being careful, we should note that *causing* an impact is not always the same thing as making a difference to whether that impact occurs – but let us use “duties of difference-making” to cover both cases.[[9]](#endnote-9) Within this class of duties, we can then make a pair of distinctions. Duties of *dependent* difference-making are duties to produce positive and avoid negative impacts on others’ welfare, by affecting whether some other agent produces or avoids those impacts. Duties of *independent* difference-making are the duties to produce positive and avoid negative impacts on others’ welfare directly, without relying on someone else’s agency to do so. A further distinction concerns whether a duty of difference-making is a duty to induce another agent to do what that other agent already has a duty to do. When a duty of difference-making is notof that kind, we can call it a *primary* duty of difference-making. A *secondary* duty of difference-making is a duty to induce another agent to fulfil a primary duty of difference-making.[[10]](#endnote-10) Notice that these two distinctions do not coincide. We see this in the duties that authoritative agents have to solve collective action problems: these are primary but dependent. The municipal government’s duty to implement water restrictions is primary, since it is a duty to instruct individuals to do what they do not already have a duty to do; but it is also dependent, since the difference the government makes is made by affecting the actions of individual consumers.

 The other class of duties for which we will need a label comprises “duties of participation”. These are the duties that an agent can have to join in the activity of a group. When a group is achieving something important by acting together and is doing so through its members’ willingness to join in, sharing the costs of the collective action, I can thereby acquire a duty to join in on the same terms.[[11]](#endnote-11) Duties of participation should be distinguished from duties of difference-making: I can have duties to join in the worthwhile actions of groups that are large enough to absorb the costs of my non-participation, without its having a significant impact on anyone’s welfare. If I ride on public transport without paying, the moral complaint against me is not that I am harming anyone. It is that I am failing to participate in the collective practice on the same terms as everyone else.[[12]](#endnote-12) Participatory duties are the duties I have when I lack a good answer to the question, “Why aren’t you joining in?”

 Phrased in these terms, the initial picture of climate duties is as follows. National governments are the bearers of primary duties of difference-making, as the potential parties to the international agreement that is needed as the solution to our global problem: like other agents with the capacity to solve collective action problems, their duties of difference-making are primary but dependent. Intermediate agents have secondary duties of dependent difference-making: duties to influence national governments to do what they already have a duty to do. Some prominent individuals have secondary duties of influence too – opinion-formers and well-connected people who can influence the decision-making of national governments. However, most individuals are not in that position: their climate duties are duties of participation, not difference-making. In the future, when there *is* a global climate agreement, individuals will have duties to comply with the regulation it imposes on them. Meanwhile, the climate duties of individuals extend at most to participating in the joint efforts now under way to encourage their governments to do what they ought – supporting climate action campaigns and voting for parties with sound climate policies.[[13]](#endnote-13)

 To complete the initial picture, we can consider its application to two other important kinds of climate action. So far, we have been focusing on the actions required to solve the global climate problem. But in addition, during the period before we have arrived at that solution, we need to consider the ways in which our action can affect the severity of the problem itself. We face the question what we should be doing to mitigate the climate impacts of our past and current activity, and what we can do by way of adaptation, to protect vulnerable people from being harmed by the changes to the climate that are already underway. The initial picture can be extended to cover these actions too, making the corresponding claims. With respect to mitigatory and adaptive action, national governments are again the primary bearers of duties of dependent difference-making to exercise their authority to change their citizens’ behaviour. They have duties of mitigation, owed to climate-vulnerable people around the world, to regulate their own economies in a way that lessens the harm they are doing; and duties of adaptation, owed to their own citizens, to protect them from the threats that the processes of climate change now under way will expose them to. From these, the mitigatory and adaptive duties of other agents derive in the same ways as before. Intermediate agents have secondary duties of difference-making through influence on national governments; individuals have duties of participation in the actions initiated by their governments.

 A corollary of this picture is that the climate duties of intermediate agents and individuals may be relatively modest. When one agent has a difference-making duty and a second agent can potentially influence whether it is fulfilled, then that gives the second agent a morally relevant reason to exercise that influence. But whether there is a *duty* to exercise it will depend on how influential one is likely to be, how burdensome the action will be, and what morally relevant reasons there are to do other things instead. A clear case for the possession of duties of influence will apply only to those intermediate agents for which climate action is not very disruptive. Similarly, getting from the reasons that individuals have to participate in worthwhile joint action to a *duty* to participate also depends on the cost of participation and the reasons there are to do other things instead. The party with the best climate policy may have other social and economic policies that are bad. And while I have participatory reasons to join in climate action campaigns, I also have participatory reasons to join in campaigns to address poverty, animal welfare, mental health provision, and every other worthwhile movement for social improvement. So the clearest assignment of climate duties, on this picture, is to national governments. *Some* intermediate agents and individuals may bear the other two kinds of duties: but that depends on what else is at stake for them.

**II: Revising the Initial Picture**

The initial picture makes some assumptions that others may wish to question, but I shall not. It assumes that institutional agents can have moral duties; that current patterns of greenhouse-gas-emitting activity will harm future generations; and that duties to avoid such harm are not undermined by the fact that the identity of future individuals is contingent on the actions we take now. I also accept its assumption that the scope and stringency of the duties an agent has depend on *all* of the reasons that bear on that agent’s actions.[[14]](#endnote-14) Thus, although the initial picture offers a classification of the kinds of climate duties that are borne by agents at the three levels and the relationships between them, it does not say that all agents at a given level have the same duties. It says that the climate duties that individuals have are participatory, but it does not say that all individuals have participatory climate duties. It allows that some individuals – those with compelling reasons to do other things instead – lack any climate duties at all.

 My own concerns with the initial picture lie elsewhere. I shall be arguing that it needs to be revised in three main respects. It mischaracterizes the relationship that national governments bear to the global problem of climate change and consequently mischaracterizes the duties they have in relation to its solution. It understates the climate duties of lower-level agents. And it oversimplifies the relationships of dependency between the content of climate duties at the three different levels.

 The first of these errors, I shall argue, comes from a mistake about the kind of collective action problem that anthropogenic climate change presents us with. It is true in many cases that agents with the authority to implement regulation with the potential to solve a collective action problem can have a primary duty of dependent difference-making to do that; and that the agents over whom they have authority can then acquire duties of participation after the regulatory solution has been implemented. However, on closer examination, we will find that this description does not fit the global climate change collective action problem – the problem is too big. It turns out that the duties of national governments are not primary duties of dependent difference-making.

 The initial picture is not only wrong about the climate duties of national governments; it is also wrong about the climate duties of agents at the other two levels. It sees the duties of lower-level agents as deriving from the relationships they bear to higher-level ones; but that is incorrect too. It underestimates the contribution we are all making to producing the current problem. Once we get that properly into focus, we find that intermediate agents and individuals have climate duties that do not derive from their relationship to national governments.

 Beyond this, the initial picture needs a third correction. It is not just a mistake to think that all lower-level climate duties depend on relationships to higher-level agents – on the contrary, the content of the climate duties of higher-level agents can depend on their relationships to lower-level ones. And at all three levels, the climate duties we have are primarily participatory.

 The next three sections explain these points by considering each of the three levels of climate agency in turn – starting with individuals, then considering national governments, and finally turning to the varied group of intermediate agents.

**III: Individual Action**

The initial picture sees the climate duties of individuals as deriving from their relationship to higher-level agents. The bearers of primary duties of difference-making are agents at higher levels: individuals currently have secondary duties of participation in collective efforts to get higher-level agents to discharge their primary duties, and will in future acquire duties of participation in the initiatives that those other agents eventually adopt to solve the problem (and to mitigate it meanwhile). The effects of any individual’s actions on harmful climate change are too small to be themselves the ground of a climate duty.[[15]](#endnote-15)

 However, once we get a better appreciation of the scale of the problem that we are creating, we find a serious case for attributing to individuals duties that do not derive from our relationship to higher-level agents. Epidemiologists already estimate that approximately 300,000 extra deaths are attributable annually to human-induced climate change (150,000 from the first 0.5°C rise in temperature above pre-industrial levels, and another 150,000 for the second); alongside these deaths, there are many more individuals who are severely affected, in needing emergency assistance or having their livelihoods significantly compromised.[[16]](#endnote-16) If we continue putting greenhouse gases into the atmosphere at the current rate, this figure will rise above 500,000 annual deaths in our lifetimes; and the IPCC tells us that the greenhouse gases we are now putting into the atmosphere can be expected to remain there (unless others act to take them out) for over a millennium.[[17]](#endnote-17)

 Such figures do not allow us to draw conclusions about the amount of harm that is done by any individual emitter: the causal system linking individual emissions to individual harms is too complicated for a connection of this sort ever to be traceable. However, what they do allow us to do is to quantify the *expectation* of harm that is associated with the lifetime emissions of an average individual living in the developed world. On average, each rich-world individual contributes only about one 2 billionth of the total emissions being added to the atmosphere globally.[[18]](#endnote-18) But the aggregate amount of harm that these emissions are projected to do is very large: it includes more than 500,000 deaths a year for more than 1,000 years. So on these figures, the average contribution is more than a quarter of a death each. The actual causal contribution that any one of us makes might be either higher or lower than this: we will never know. But the expected harm associated with the activity of each rich-world emitter – the probability-weighted sum of the harms it might produce – is the average. To this mortality figure, we then need to add the expected non-lethal harm. Using the same epidemiologists’ data and applying the same methods, the average figure we arrive at for this is more than 290 people needing emergency assistance or having their livelihood significantly compromised.

 Elsewhere, I discuss this calculation in more detail, and the conclusions we should draw from it.[[19]](#endnote-19) It invites questions about the extrapolation that is needed in order to get from the established data to an estimate of future harm and its attribution to one type of action in a very complex causal system. However, it is likelier to be an under- than an overestimate.[[20]](#endnote-20) And while the details of the calculation can be questioned, the issue cannot be ignored. If the overall amount of harm we are doing is large enough, then I face moral questions about my own contribution to it. If I am acting in a way that imposes a substantial risk of harm on other people, I need to justify the imposition, and I cannot do so merely by pointing out that many other emitters are doing the same thing.

 From here, there are two serious arguments for thinking that individuals have a duty to reduce or offset their own personal greenhouse gas emissions. The first, maintained by John Broome and others, is an argument from individual difference-making.[[21]](#endnote-21) I have a duty not to impose on others a substantial risk of harm without good justification. Here, the risk associated with my emissions is substantial – a quarter of a death and 290 other severe harms – and all I have by way of a justification for imposing it is my own convenience; so I have a duty not to impose it.

 A question can be raised about that first argument. There is an expectation of harm associated with many of our actions, but whether we have a duty to avoid them depends not just on the magnitude of the expected harm and the cost to oneself of avoiding it – it depends also on one’s degree of responsibility for any harm that does result from the action. When harm is a result of the causal influences of many different agents, that can lessen the degree to which I am properly held responsible for it. From that general point, we cannot conclude that the first argument fails; but there is a further issue that needs to be investigated before concluding that it succeeds – the issue of responsibility-attribution.[[22]](#endnote-22)

 However, alongside this first argument, we need also to consider a second. This is an argument for an individual duty of *participation* rather than of difference-making. Given the risks of harm that are associated with individual emissions, many people around the world *are* reducing or offsetting their emissions in order to lessen the impact that they have on vulnerable people. So I face the question, “Why aren’t you joining in?” When this question is asked, I am not being asked to justify the difference *I* make if I continue to emit at unconstrained levels. Instead, I am being asked to justify my unwillingness to participate in a joint practice (of constraining emissions) that makes a substantial difference, given the number of other people who participate in it. What they do together is not itself going to solve the global problem of climate change, but it is a joint action of substantial harm-reduction in which I could participate on the same terms as the other participants. Why am I not prepared to join this group on the same terms, sharing the costs of what they are doing together?[[23]](#endnote-23)

 Although both of these arguments need to be taken seriously, I find the second more compelling: I cannot see a good answer to the question it poses. Together, they constitute a serious challenge to the initial picture of climate duties. The climate duties of individuals are not limited to those that derive from their relationships to higher-level agents. Individual contributions to the problem are serious enough, and the actions of individuals to lessen that contribution significant enough, to create duties of climate action that are independent of those relationships.

 In that way, the initial picture’s treatment of individual climate duties is too narrow: it misses the duties that do not derive from our relationships to higher-level agents. But in another way, it is too broad. There is an important restriction on the participatory duties that we can acquire through standing under the authority of a government. Citizens who stand under the authority of legitimate governments can have a duty of political obedience to comply with their governments’ climate change legislation. On an orthodox understanding of political obligation, this duty is not conditional on the government’s decisions being correct or optimal, but only on their being justly arrived at and imposed. But this carries with it an important restriction. Individuals who are subject to the power of illegitimate governments do not have that duty. They can still have climate duties of mitigatory action, of the kind described above – duties to reduce or offset their own emissions. And they could have participatory duties to bring their own conduct into conformity with a future global climate agreement, if that agreement is worthwhile. But further duties of obedience to the authority of higher-level climate agents depend on the legitimacy of that authority.

**IV: International Action**

We can now look more closely at the climate duties of national governments. The initial picture characterizes these as primary duties of dependent difference-making through authority: duties to form an international agreement as the solution to our global collective action problem; after forming it, to implement it through the exercise of regulatory authority over their own citizens; and before forming it, to take effective mitigatory and adaptive action. This picture needs four main amendments.

 The first involves being more careful about the actions that are available to any one national government, interacting with the others. There is a sense in which the governments of the world, considered collectively, are able to make an international climate agreement; but no individual government can do that. What it can do is to propose such an agreement, to signal its willingness to comply with it, to commit to doing so, and to produce incentives for other countries to do likewise. Given this, the initial picture misdescribes the duties that a national government has in relation to a global climate agreement. No individual government can solve our global problem, so no government has a duty to do that. The principal climate duties of each national government are duties of dependent difference-making through influence on the actions of other governments. And these duties of difference-making through influence are all secondary, since they are duties to induce the other parties to do what they already have a duty to do. The actions each government has a duty to perform in influencing the others – actions of signalling, commitment, and incentivizing – are actions of inducing the other parties to perform actions of the same kinds, which they already have duties to perform. There is no primary duty-bearer.

 The second respect in which the initial picture needs correction is that it overlooks the importance of the participatory duties that there now are at the national level. Each government can participate in those forms of cooperation that currently exist as worthwhile contributions towards reaching a global agreement: for example, participation in the UN climate summits, compliance with the agreements reached at those summits, and cooperation within the coalitions of states that have been formed to influence climate decision-making, such as the Major Economies Forum on Energy and Climate, the Global Climate Change Alliance, and the Alliance of Small Island States (AOSIS). The importance of these forms of cooperation comes from the way they sustain and strengthen a needed vehicle for solving our collective problem, rather than because they are directly solving it. The magnitude of the problem confers importance on these cooperative efforts, and grounds the characteristic challenge – “What justification is there for not joining in?” – that gives rise to participatory duties. These must be distinguished from the participatory duties that national governments will have to comply with a comprehensive global climate agreement once it is reached. In advance of this, their principal climate duties are duties of two kinds to direct themselves towards securing that agreement – secondary duties of dependent difference-making through mutual influence, and the different participatory duties just mentioned.

 In addition, it is true that they also have duties to take mitigatory and adaptive action in advance of that comprehensive agreement. But here, a third departure from the initial picture should be noticed. National governments have two sets of mitigatory duties. They have duties to mitigate their own climate impacts, through the actions of their employees: these are indeed primary duties of dependent difference-making, as the initial picture says. But they also have duties to regulate the activities of their citizens in a harm-minimizing way – and these mitigatory duties of national governments are secondary, not primary. They are duties to compel us to do what we already have a duty to do.

 In that respect, the initial picture is mistaken in seeing the mitigatory duties of individuals as deriving from those of national governments. However, this is not to say that there is a derivation running in the other direction. Applying our distinctions, the mitigatory duties of national governments should be classed as duties of dependentdifference-making, since they are duties to make a difference by via the actions of other agents over whom they have authority; and they are secondary duties when they are duties to compel us to do what we already have a duty to do. But it is not the case that national governments have mitigatory duties *because* individuals have such duties. A national government is a locus of decision, and it is the expected consequences of its decisions on the welfare of those who stand to be affected that is the ground of its duty to mitigate that impact. To discharge that duty, a national government must take decisions to regulate the activities of its citizens in ways that lessen *its* climate impact; and when it does so it will be directing us to do what we already have a duty to do it. But its duty does not derive from ours.[[24]](#endnote-24)

 However – as the fourth and final correction – we should notice that that there are indeed some ways in which the content of national governments’ climate duties depends on their relationship to lower-level agents. The duties of governments are constrained by their relationship to the citizens of whom they are the political representatives. The constraints that the rights of individual citizens place on the actions of representative governments add to the moral as well as the political complexity of the climate action challenge. National governments (as well as those of regions and cities) have duties of representative responsibility, owed to those who vest them with authority. They must govern justly, and must protect the welfare of those to whom they are responsible – especially the welfare of those who are least well off. This supports the view that national governments have a duty not to make unilateral commitments that will impose significant sacrifices on their own citizens – especially, their own poor citizens – in advance of effective global action. And more particularly, it strongly supports the view that the governments of developing countries have a duty to their own citizens not to forgo the opportunities for development that developed countries have already taken.[[25]](#endnote-25)

 A further point about political representation is worth making. Some governments have been elected on a policy platform of climate inaction. They ought, morally, not to have adopted this platform, and voters ought not to have voted for it. However, a promise one ought not to have made can be a promise one ought to keep. And when the authority of a government derives from the mandate it receives from the people it represents, its entitlement to act is restricted by what the populace has authorized it to do. This creates the possibility that some legitimate governments have a duty of climate *in*action. To say this is not to exculpate them: they act wrongly in advocating the platform they do. But having been instructed to implement it, they may still have a duty to do so.

 The one part of the initial picture of the climate duties of national governments that emerges unchanged from this examination is its description of their duties of adaptive action. These are indeed duties of primary difference-making through authority. National governments have duties to secure the welfare of their own future citizens; but it is less plausible that when my government exercises its authority over me for the purpose of implementing adaptive measures to lessen the impact of future climate change on future generations, it is thereby compelling me to do something that I already have a duty to do. I have mitigatory duties connected to reducing the expected harm associated with my energy-consuming behaviour; and if there were something I could easily do to assist future individuals to adapt to a warmer world, then that could be the ground of a duty of adaptive action; but it is not clear that there are effective adaptive actions readily available to me. So the adaptive duties of national governments are primary.

**V: Intermediate Action**

Having identified the corrections in the initial picture that are needed for a more accurate picture of the climate duties of individuals and national governments, we can turn now to intermediate agents. We can focus first on cities and regional governments, before considering intermediate agents of other kinds. The place to begin is by noticing how the points made in the previous two sections about individual agents and national governments apply to these intermediate agents too. Then we can look at the further important respect in which the initial picture of their duties needs to be corrected.

 Section III argued that the scale of our climate problem is large enough to give individuals duties of mitigatory action that are independent of their relationship to higher-level agents. If so, the same point applies to cities and regional governments. Since they are responsible for a greater volume of emissions, the expectation of harm associated with their actions, and the strength of the moral reason to reduce it, are correspondingly greater. Since these intermediate agents act by exerting their authority over individuals, these are duties of dependent difference-making; and when the individuals who are subject to that authority already have mitigatory duties of their own, the duties that the intermediate agents have to exercise their authority in this way are secondary, not primary. They do not *derive* from the mitigatory duties of individuals, nor from those of national governments. At all levels, there are agents making decisions with significant enough welfare impacts to give rise to mitigatory duties – duties that do not derive from the corresponding duties possessed by other agents.[[26]](#endnote-26)

 Thus, cities and regional governments acquire mitigatory duties in the same way that individuals do – independently of their relationship to higher-level agents. But then they also acquire duties of adaptive action in the same way that national governments do. As politically representative agents, cities and regional governments have duties to take precautionary action now in order to protect their own residents’ future welfare against the harmful impacts of climate change. These are primary duties of dependent difference-making.

 That gives us two corrections to the initial picture of the climate duties of intermediate agents. That picture treats all of their duties as deriving from their relationships to national governments; but their mitigatory and adaptive duties do not fit that picture. How about their duties of influence – those which the initial picture characterizes as intermediate agents’ principal climate duties?

 Here, three corrections are needed: we can examine them in ascending order of importance. First, the initial picture treats this as a point of *contrast* between national and intermediate agents: intermediate agents have duties to influence national governments, the climate change difference-makers. However, we have seen that the principal climate duties of national governments are themselves duties of influence. So to the extent that intermediate agents have duties of dependent difference-making through influence on governments’ actions, these are duties of the *same* kind as the principal climate duties of governments themselves. It is true that the kinds of government-influencing action that subnational agents can have duties to perform are restricted: they cannot include signalling a willingness to commit to an international treaty to which they are not potential parties. However, they are duties of the same general type.

 The other point we made about national governments that transfers to intermediate agents concerns the importance of coalitional action. The most effective way for intermediate agents to exercise their influence is by acting together, in groupings such as the 650-strong Cities for Climate Protection program (CCP), the C40 Cities Climate Leadership Group of 90 global cities, the “We Are Still In” group of 3,800 American business, political and educational leaders, or the Regional Greenhouse Gas Initiative (RGGI) in which 10 US states participate in a cap-and-trade emissions reduction scheme. Once these joint actions are established, the morally relevant reasons for each intermediate agent to join them are participatory, rather than reasons of difference-making. (It is the coalition that is the difference-maker; that is what makes the joint action worthwhile; the reason for each agent to join in that action is participatory.) These reasons give rise to duties in the same way as before. For each coalition that is achieving something significant, each further potential partner to the coalition faces the question “Why aren’t you joining in?” The seriousness of the problem that is being addressed determines the strength of the justification that is needed to address this question satisfactorily. When there is no satisfactory justification, there is a participatory duty.

 However, there is a third, more important, respect in which the initial picture needs to be corrected. The importance of coalitional climate action at the intermediate level is not tied to its capacity to influence the actions of national governments.[[27]](#endnote-27) When US city mayors and state governors joined the “We Are Still In” coalition, the point of doing so was not primarily to persuade the current US national government to change course. It was to demonstrate that a commitment to effective climate action was not dependent on national government policy. And the thinking behind C40 is to show that the world’s urban population has the ability and good will to transform the world economy in a way that bypasses inertia at the level of international negotiation.[[28]](#endnote-28) While the overall point of such action is to make progress towards an eventual global framework for effectively regulating human impact on the climate, its contribution to doing this is to start to establish the new economic structures that a future global agreement will need to enforce, rather than merely to induce other agents to reach that agreement.[[29]](#endnote-29)

 It can be questioned to what extent considerations of *duty* actually motivate such initiatives. Long-sighted municipal leaders who want to see their own cities perform strongly in the economy of the future have appreciated the advantages of being early adopters of the new technologies and forms of social organization that will have to be found – or at least not to get left behind, by tapping into the expertise of the other C40 members. Participation in the RGGI has not been a matter of economic self-sacrifice: the economies of the participating states have grown at the same time that their emissions have gone down.[[30]](#endnote-30) However, our question is whether these agents *have* climate duties, not how far they are motivated by them. And this point actually makes it easier, not harder, to establish that there are such duties. Every agent has morally relevant reasons to be taking climate action; whether there is a duty to take it depends on whether there is a good answer to the question, “Why aren’t you joining in climate action?”; the smaller the sacrifice that such action requires, the harder it is to answer this question.

 Turning finally from subnational governments to intermediate agents of other kinds, we find that their climate duties overlap with those already mentioned. Corporations are economically powerful enough to have primary duties of difference-making to take mitigatory action to lessen the impact of their emission-producing activities. If the scale of our climate impact is large enough to generate mitigatory duties for individuals, then commercial enterprises of any size have such duties also, as do a wide range of other associations: unions, clubs, professional bodies and volunteer organizations. In addition, corporations can join coalitions of influence (such as the “We Are Still In” coalition), and this gives them participatory duties of the same sort as intermediate political agents. Where the non-governmental intermediate agents differ is in respect of adaptive action. Since they do not have the same duties to protect the interests of particular future individuals as the political agents who represent those individuals, the case for assigning duties of adaptive action to them is weaker.[[31]](#endnote-31) They have the same duties as all agents not to cause harm, but lack the relationship of special responsibility for welfare-protection that marks out the political agents as having a duty to protect their own vulnerable residents from predictable future harm.

 Non-government organizations with a declared platform of climate activism are the intermediate agents whose principal climate duties are secondary duties of influence. The source of these duties comes not just from their capacity to exert an influence, but an implicit promise to their supporters to do so. Through making these commitments, these organizations can *assume* duties they would not otherwise have. However, notice that here, too, a correction to the initial picture is needed: the duties of activist organizations can extend beyond duties of influence. An organization that promises to speak up against bad policy has a duty to do so, owed to the promisees, independently of whether this is likely to change the policy.

**VI: The Revised Picture**

According to our initial picture of climate duties, national governments are the difference-making agents with a duty to solve the global problem of climate change; intermediate agents have a duty to use their influence over their own national governments to do that; and individuals have a duty to participate in effective joint activity towards that end. This kind of picture captures the moral structure of many collective action problems; but it is not adequate here. We have found four main deficiencies. It simultaneously overstates the responsibilities of national governments, understates the responsibilities of lower-level agents, oversimplifies the relationships of dependency between the content of climate duties at different levels, and misses the significance of coalitional agents.

 The last of these points deserves further emphasis. With the formation of coalitions at each level, new climate agents are created.[[32]](#endnote-32) The same deliberative mechanisms that bestow on national and sub-national governments the capacity to appreciate and respond to reasons, and consequently make their actions morally evaluable, are present among those coalitions of such agents that have adopted agreed procedures for decision-making on behalf of coalition members. If Tuvalu and Tokyo can have climate duties, so can the C40 network and AOSIS. These are climate agents located at the same intermediate level of climate action as their members; once formed, the coalitions are bearers of duties of difference-making, while the duties of their members are participatory.

 A corollary of this is that participatory actions can be nested within each other; and as a consequence, so can the duties to which they give rise. What can make the action of a collective agent worthwhile is that it is an action of participation in the agreed activity of a larger coalition. If the C40 coalition of cities together are having a valuable impact on global climate politics, the action of the coalition may be worthwhile, generating participatory reasons for my city to join C40; this can in turn make my city’s climate actions as a participant in C40 worthwhile, and that can generate participatory reasons for me to support those climate actions (for example, voting to support them in municipal elections, and joining in local C40 initiatives). This is a further way in which higher-level participatory duties can generate lower-level ones.

 We need to replace the initial picture, then. In outline, the improved picture of climate duties we have arrived at is this. We should retain the initial picture’s distinction between the actions that can be taken towards solving to our global collective action problem and the actions of mitigation and adaptation that need to be pursued meanwhile. However, at *all* levels, the duties to perform actions of the first kind are primarily participatory. The solution being sought is an effective form of cooperation; what is required of agents at every level is cooperative participation in the forms of joint activity that present us with the best ways of reaching that goal. With duties of mitigation and adaptation, by contrast, the duties of higher-level (national and intermediate) agents are duties of difference-making. Economically powerful agents have duties to mitigate the harm done by the emissions activity for which they are responsible; politically powerful agents have duties of adaptation to protect their own populations from climate harms. And although in my view the mitigatory duties of individuals are duties of participation, these go beyond simply complying with the authority of higher-level agents: as individuals, we ought to be participating in joint efforts to reduce the harm that we ourselves do.

 On this picture, national governments are important climate agents: solving the problem of climate change will indeed require an international agreement. But they are not the source of all climate duties, in the way that the initial picture suggests. All it takes to possess a climate duty is either economic power, or political responsibility, or the capacity for joint action. The content of the climate duties possessed by agents at higher and lower levels is interdependent. The duties that higher-level agents have to exercise economic power are constrained by their political responsibility to those they represent; and lower-level agents’ duties to participate in climate action are shaped by the importance of supporting effective higher-level action, for the sake of our collective future.[[33]](#endnote-33)

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**Notes**

1. In this essay, I follow the common practice of using “national governments” to refer to sovereign states (whether or not they represent a unitary nation), and “international agreements” to refer to agreements between those states. [↑](#endnote-ref-1)
2. In addition to the impacts on people, the impacts on other animals and the rest of the environment are also morally significant. For a summary of these, see Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, Ii and Iii to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, pp. 64-7. [↑](#endnote-ref-2)
3. Sources: International Monetary Fund (https://www.imf.org), U.S. Department of Commerce Bureau of Economic Analysis (https://www.bea.gov). [↑](#endnote-ref-3)
4. See Stephen M. Gardiner, "The Real Tragedy of the Commons". [↑](#endnote-ref-4)
5. Nicholas Stern, "The Economics of Climate Change", p. 1. [↑](#endnote-ref-5)
6. For an attempt to estimate these costs in welfare terms, see Section III. For estimates of the economic costs, see Robert Mendelsohn, "Economic Estimates of the Damages Caused by Climate Change". [↑](#endnote-ref-6)
7. See Nicholas Stern, *The Economics of Climate Change: The Stern Review*, Part VI, “International Collective Action”. On supply-side restrictions, see Fergus Green and Richard Denniss, "Cutting with Both Arms of the Scissors: The Economic and Political Case for Restrictive Supply-Side Climate Policies". [↑](#endnote-ref-7)
8. For examples of the initial picture, see Baylor Johnson, "Ethical Obligations in a Tragedy of the Commons"; Ibo van de Poel, et al., "The Problem of Many Hands: Climate Change as an Example"; Aaron Maltais, "Radically Non-Ideal Climate Politics and the Obligation to at Least Vote Green"; Walter Sinnott-Armstrong, "It’s Not My Fault: Global Warming and Individual Moral Obligations". [↑](#endnote-ref-8)
9. I can cause an impact without making a difference when I pre-empt another action that would have caused it; I can make a difference to whether an impact occurs without causing it when I refrain from preventing it. For further discussion of this distinction and its application to climate harms, see the appendix to my “Climate Harms”. [↑](#endnote-ref-9)
10. Tertiary duties are also possible, where A has a duty to get B to comply with her duty to get C to comply with his duty. I leave these out of the current discussion. [↑](#endnote-ref-10)
11. Under exactly what conditions is that so? I offer an answer in my "Moral Free Riding". [↑](#endnote-ref-11)
12. See my "Moral Free Riding", pp. 6, 22. [↑](#endnote-ref-12)
13. See Johnson, "Ethical Obligations in a Tragedy of the Commons"; and Maltais, "Radically Non-Ideal Climate Politics and the Obligation to at Least Vote Green". [↑](#endnote-ref-13)
14. This does not equate an agent’s duties with verdicts about what that agent morally ought to do, all things considered. It allows for cases in which I ought to infringe a duty for the sake of something else that is morally more important (such as another, more stringent, duty). [↑](#endnote-ref-14)
15. See the authors cited in note 8. [↑](#endnote-ref-15)
16. Global Humanitarian Forum, *Human Impact Report: Climate Change—the Anatomy of a Silent Crisis*, available at: www.ghf-ge.org/human-impact-report.pdf, pp. 1, 9. [↑](#endnote-ref-16)
17. IPCC, *Climate Change 2007: Synthesis Report*, p. 47. [↑](#endnote-ref-17)
18. Source: Carbon Dioxide Information Analysis Center (http://cdiac.ess-dive.lbl.gov). [↑](#endnote-ref-18)
19. "Climate Harms", Section 1. [↑](#endnote-ref-19)
20. For an overview of the scale of possible impacts on human health, see IPCC, *Climate Change 2014: Impacts, Adaptation and Vulnerability*, Ch. 11. [↑](#endnote-ref-20)
21. See John Broome, "The Public and Private Morality of Climate Change", "Against Denialism", and *Climate Matters: Ethics in a Warming World*, Ch. 5; also Avram Hiller, "Climate Change and Individual Responsibility" and Christopher Morgan-Knapp and Charles Goodman, "Consequentialism, Climate Harm and Individual Obligations". [↑](#endnote-ref-21)
22. For a fuller investigation of this question, see "Climate Harms", Sections 2-3. [↑](#endnote-ref-22)
23. For a fuller exposition of this second argument, see "Climate Harms", Section 6. [↑](#endnote-ref-23)
24. Isn’t this double-counting? Yes, in the sense that it counts the same harms as belonging to the impact of national government decisions, as well as of the decisions of individuals. But attributions of responsibility for harmful outcomes are subject to this kind of double-counting. If A abets B in harming C, A might thereby acquire a measure of responsibility for the harm to C without in any way diminishing B’s responsibility for that same harm. For further discussion, see Björn Petersson, "Co-Responsibility and Causal Involvement". [↑](#endnote-ref-24)
25. On the importance of energy use for development, see Gilles Carbonnier and Jacques Grinevald, "International Development Policy: Energy and Development". [↑](#endnote-ref-25)
26. This now involves not just double- but triple-counting in the attribution of responsibility for harmful impacts. But this remains legitimate in the same way as before: see note [24]. [↑](#endnote-ref-26)
27. See Jeroen van der Heijden, "City and Subnational Governance: High Ambitions, Innovative Instruments and Polycentric Collaborations?". [↑](#endnote-ref-27)
28. For a study of the C40 network and its place within the broader context of transnational municipal cooperation, see Jolene Lin, *Governing Climate Change: Global Cities and Transnational Lawmaking*, Ch. 5. The corresponding point can be made about the CCP program: see Michele M. Betsill and Harriet Bulkeley, "Transnational Networks and Global Environmental Governance: The Cities for Climate Protection Program", p. 490. [↑](#endnote-ref-28)
29. On the importance of “knowledge communities” in solving problems in the provision of global public goods, see Eric Brousseau and Tom Dedeurwaerdere, "Global Public Goods: The Participatory Governance Challenges". [↑](#endnote-ref-29)
30. See Hannah Fairfield, "Best of Both Worlds? Northeast Cut Emissions and Enjoyed Growth," . [↑](#endnote-ref-30)
31. Weaker, but not non-existent. If my past actions have created a threat to you, then that does give me a morally relevant reason to help you to protect yourself from the threat. [↑](#endnote-ref-31)
32. For a more general analysis of the role of transnational coalitions in global governance, see Shepard Forman and Derk Segaar, "New Coalitions for Global Governance: The Changing Dynamics of Multilateralism". [↑](#endnote-ref-32)
33. Earlier versions of this essay were presented to the Climate Justice Beyond the State workshop (Sydney, 2018), World Forum for Climate Justice (Glasgow, 2019) and to a meeting of the Fellows of the Academy of the Social Sciences in Australia (Adelaide, 2019). I am grateful to the organizers and audiences for their help in improving it, and to Jeremy Moss for especially helpful written comments. [↑](#endnote-ref-33)