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# Global egalitarianism and climate change: against integrationism

Alex McLaughlin 

Department of Politics, University of Exeter, Exeter, UK

## ABSTRACT

A central question in debates about climate justice concerns how the global emissions sink should be shared among the global population over time. This paper considers how global egalitarians should answer that question. In particular, it defends emissions egalitarianism from a view known as ‘integrationism’, according to which shares of the emissions sink should follow from a more general egalitarian theory of distributive justice. First, I show that emissions egalitarianism can draw on a source of functional support not adequately acknowledged in the integrationist critique: it can express an underlying account of the structure of historical responsibility for climate change I call the Fair Share View. Second, I claim that integrationism is also in tension with other principles of responsibility for climate change, and that its scepticism about historical responsibility has not been appreciated. Finally, I provide an alternative to integrationism. My central claim is that integrationism posits too direct a relation between a theory of equality of wellbeing and practical questions about claims to the emissions sink. Egalitarians should appeal to a species of derivative principle I call ‘applied principles of global justice’, and emissions egalitarianism could plausibly be endorsed on these grounds.

**KEYWORDS** Global egalitarianism; climate change; integrationism; emissions debt

The global emissions sink is constituted by a range of natural resources, including the Earth’s atmosphere, oceans and rainforests. But it can also be treated as a single resource, as it generally is in debates about climate justice. Construing the emissions sink as single resource, held in common by the global population, is a way of addressing distributive questions that arise at the level of global climate policy. The idea is that the Earth has a valuable but scarce capacity to sequester greenhouse gas emissions within some acceptable threshold, which must be shared over time.<sup>1</sup> Claims about fair access to the emissions sink are at the very heart of debates about climate justice: mitigation duties primarily involve refraining from using the emissions sink,

**CONTACT** Alex McLaughlin  [a.j.mclaughlin@exeter.ac.uk](mailto:a.j.mclaughlin@exeter.ac.uk)

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while adaptation duties arise from the need to ensure that past use does not lead to harm.

The emissions sink is clearly a natural resource of considerable moral significance, but there is disagreement about how to account for that fact (e.g. Blomfield, 2013). On one influential view, which we can call Emissions Egalitarianism (EE; Baatz & Ott, 2017), access to the emissions sink over time should be regulated according to its own principle of equality. EE has been ubiquitous in debates about climate change burden sharing. Writing in 2011, for example, Stephen Vanderheiden (2011) claimed that '[m]ost scholarly commentators defend some version of the equal emission rights thesis' (p. 173). In more recent work, however, EE has encountered a number of objections, and I will focus on one of these in particular.<sup>2</sup> According to global egalitarians, EE is an instance of a more general tendency to treat the benefits and burdens that achieve prominence in international politics as exceptional (e.g. Armstrong, 2013; Caney, 2012). In their view, this tendency should be resisted, and we should instead apply a more general principle of equality to the distributive questions that arise in relation to issues like climate change. The contention is that EE overstates the significance of the emissions sink, whose importance should be understood, in line with other natural resources, in terms of how it promotes or thwarts our pursuit of a more fundamental egalitarianism concerned with inequalities in wellbeing. The attempt to embed climate justice within a broader account of global distributive justice has become known as *integrationism* (Caney, 2012, 2018).<sup>3</sup>

Although integrationism is intended to apply to any view about distributive justice (Caney, 2012; cf., McLaughlin, 2023a), it has been primarily advanced by global egalitarians. I will assume, for the purposes of this article, that global egalitarianism is the right view about distributive justice. I also assume global egalitarianism is nonrelational in character (Sangiovanni, 2007), objecting to inequalities *per se*, not only to those which arise in the context of some social practice that extends beyond state borders. Finally, I assume that egalitarianism is concerned with inequalities in how people's lives are going in some overall sense – that is, with inequalities in wellbeing. Rather than relying on a specific view about how wellbeing is measured, I will use 'advantage' as a placeholder. The view under consideration thus combines a popular understanding of equality as distributive ideal, animated by inequalities between people in their life prospects, with the claim that the scope of justice is global.

With these clarifications in hand, the article has two main aims. First, I argue that egalitarians should not seek to apply their commitment to distributive equality through integrationism. As it is currently formulated, integrationism does not offer an alternative to EE, as it misses the important *function* EE plays in grounding ascriptions of responsibility for excessive historical emissions. Integrationism also appears to deliver independently

implausible conclusions. These two problems are related: integrationism does not provide an alternative to EE because it cannot identify the historical overuse of the emissions sink, which is partly what EE has been taken to do, and it is a strike against its plausibility that it is unable to make the ascriptions of historical responsibility for climate change that an account of the overuse of the emissions sink would allow it to make. Second, I begin to develop an alternative to integrationism. My claim is that egalitarians should apply their view to the practical questions that arise at the level of global politics through a species of derivative principle I call *applied principles of global justice*. I do not provide a comprehensive defence of EE as an applied principle of global justice, but I conclude by showing how it might be defended on these grounds. The general upshot of my argument is that global egalitarianism is not as prescriptive as integrationist suggests it is when it comes to making contextual judgments about climate change or global politics more generally.

The argument proceeds as follows: Section I briefly introduces integrationism and compares it with what I call the Fair Share View (FSV), highlighting a tension between these two closely related positions. Section II reveals the plausibility and popularity of the FSV as a way of structuring ascriptions of responsibility for climate change, and I suggest this can provide functional support for EE. Section III argues that integrationists cannot defuse the tension with the FSV by providing a complex account of egalitarian fair shares. Sections IV compounds this problem by arguing that it is unlikely egalitarians can appeal to alternative principles, such as luck egalitarianism, to ground ascriptions of responsibility for climate change. I develop my account of applied principles of global justice in Section V.

## I

It will be necessary to first add some detail to the concept of integrationism. In egalitarian writing, integrationism is most associated with the work of Chris Armstrong and Simon Caney, although their views have different points of emphasis. Armstrong objects to a general tendency in debates about global distributive justice – which we can call *natural resource exceptionalism* (Armstrong, 2013) – to apply a principle of equality directly to natural resources. Caney is concerned with EE, the climate-specific instantiation of this tendency. But for both, applying a principle of equality to natural resources or a single natural resource is an unmotivated form of *isolationism*: theories of global distributive justice give us reason to be concerned about a broader range of benefits and burdens that affect how well people's lives go. Egalitarians do not, of course, dispute the practical significance of natural resources, just that this has any distinctive theoretical implications. As Armstrong (2017) puts it, natural resources are 'tremendously important,

but nothing special' (p. 81). Caney captures the core objection in his First General Challenge.

*First General Challenge:* If distributive justice is concerned with the fair share of a "total package" of goods, then we have no reason to endorse a principle that applies solely to one particular item, such as greenhouse gas emissions. If this is right then ... it does not make sense to refer to the fair distribution of [a specific resource like] greenhouse gases. (Caney, 2012, p. 271)

Caney states his challenge as substantively neutral, but we can put the point in terms of the egalitarianism both he and Armstrong endorse (Armstrong, 2017; Caney, 2005). On the egalitarian view, it does not make sense to refer to the fair distribution of a single natural resource, because depending on an agent's holdings of other resources, a range of possible distributions are compatible with equality of the relevant 'total package'.

Integrationism is not only a call to keep in view the full range of resources that fuel a more general currency of equality. It also advances a claim about how to *apply* an egalitarian view about distributive justice to practical issues. To see this, notice a conditional claim in the First General Challenge, now with added emphasis:

If distributive justice is concerned with the fair share of a 'total package' of goods, then we have *no reason* to endorse a principle that applies solely to one particular item, such as greenhouse gas emissions.

Implicit in this conditional claim is the following:

*Direct Application:* Only distributive justice gives us reason to endorse a principle that applies solely to greenhouse gas emissions.

I have chosen to state Direct Application in its climate-specific form. The integrationism advanced by Caney and Armstrong, though, endorses something close to Direct Application more generally. In their view an egalitarianism of advantage, not specific principles of equality that apply to particular items like natural resources, should be at the centre of discussions about global justice, integrationism implies that when we encounter a problem involving the distribution of different benefits and burdens, what matters first and foremost is how those benefits and burdens bear on relative levels of advantage, broadly construed. As such, Caney (2012, pp. 291ff.) claims that we can determine people's entitlements to greenhouse gas emissions from a general egalitarian theory of distributive justice by following a five-step procedure, the details of which I will return to below. Similarly, for Armstrong (2017, 2014), we should look to use the benefits associated with natural resources to 'equalise' people's wellbeing, except in cases where people have 'special claims' to particular natural resources based on either improvement or attachment.

My more specific formulation of Direct Application avoids issues that are peripheral to the current discussion. In the end, both Caney and Armstrong modify their general claim about application in ways that produce a more complicated picture. For example, they agree that fundamental civil and political rights should be subject to their own principle of equality (Armstrong, 2017, p. 72; Caney, 2012, p. 273). And Armstrong's special claims represent further qualifications. Importantly, however, neither thinks these complications apply to the question of access to the emissions sink. Emission permits are not like civil or political rights, and Armstrong (2015) is sceptical about special claims to the emissions sink *qua* emissions sink. Indeed, he adds, following Axel Gosseries, that we should 'pursue an 'opportunistic' approach to climate justice: 'our fundamental consideration' when approaching the problem should be to mitigate 'overall inequalities in wellbeing' (Armstrong, 2017, pp. 91, note 32).

Integrationism, then, with its focus on a broad currency and tendency to apply egalitarianism directly will place an egalitarianism of advantage at the centre of purportedly distinct debates about global distributive justice, and it will do so, in particular, when it comes to climate justice, since Direct Application in this context is unqualified. One important implication of accepting integrationism is that it seems to require us to give up the idea that the overuse of the emissions sink is an important dimension of climate change burden sharing, and that this fact should be reflected in the principles that guide the costs of mitigation and adaptation (Batz, 2014). I do not believe egalitarians should accept this conclusion. To begin to see the problem, consider a particular understanding of the underlying structure of climate justice, which we can call the Fair Share View (FSV). The FSV, as we will see, encompasses a range of positions, but they all understand duties toward climate change, to some degree, as an expression of the following underlying schema.

- (1) There is an aggregate limit to the use of resource R.
- (2) A's fair share of natural resource R within that limit is  $x$ .
- (3) If A exceeds their fair share,  $x$ , of R, then they are liable to bear (at least some portion of) the costs stemming from the overuse of R.

The FSV, applied to climate change, represents a way of grounding ascriptions of historical responsibility, which in turn can be used to demand actors bear mitigation and/or adaptation burdens on the basis of past overuse. The thought is that there is a carbon budget, which is determined by the capacity of the emissions sink to sequester greenhouse gases within the aggregate threshold, and that access within this aggregate limit ought to be distributed fairly. Integrationism is in tension with the FSV, since it seems to make (2) unintelligible. Although egalitarians have targeted the claim about *equal* shares specifically, Caney's First General Challenge says that it generally 'does not make sense to refer to the fair

distribution of [a specific resource like] greenhouse gases'. If we cannot substantiate (2), then (3) cannot be specified, with the result that we cannot ascribe responsibility for the overuse of a natural resource such as the emissions sink. As I have stated the FSV, fair shares therefore have a dual function: they specify an agent's claim to access a resource in the present (or at a particular moment,  $t_1$ ) *and* they allow us to ascribe responsibility for the overuse of that resource in practice. My contention is that integrationist egalitarians have failed to appreciate the significance of this latter function, relating to overuse: their criticisms of EE are temporally neutral (e.g. Caney, 2012, pp. 261–263), objecting simply to the idea of equal shares. There are three related prongs to my challenge, and I will spend the remainder of the paper elaborating them.

First, drawing attention to the FSV reveals the possibility, missed by global egalitarians, that the substantive principle of equal shares can gain functional support from its ability to ground ascriptions of responsibility for overuse. As we will see in more detail below, it is a central conviction in debates about climate justice that some states have incurred emissions debts as a result of their excessive past use of the emissions sink, and if EE can capture this conviction that would count in its favour. Understanding the principle in this way would involve denying Direct Application. That is, endorsing EE on the basis of its ability to assign the burdens of mitigation and adaptation according to a particular understanding of the normative structure of climate change burden sharing would be to deny that *only* egalitarian distributive justice could give us reason to apply a principle to the emissions sink. Second, if the overuse function is, for many, integral for EE, but integrationism, as a result of its inability to identify fair shares, is unable to capture overuse, then the integrationist critique remains incomplete. It does not fully account for what EE intends to do and so does not provide an alternative. Third, setting aside the particular disagreement with EE, integrationism's inability to provide an account of overuse might reveal a respect in which the view is implausible.

I am going to argue that all of these concerns about integrationism have force. In the next section, I will motivate the functionalism of EE by showing how the FSV underpins a number of separate discussions about climate justice and is in need of the substantive account of fair shares provided by EE. I do not argue at length for the FSV, but its popularity and plausibility suggest it would be noteworthy if integrationism required us to abandon it. Sections III and IV claim that integrationism can unlikely claim this functional support from the FSV or elsewhere – the view, properly worked out, seems sceptical about responsibility for climate change. These arguments will prompt the search, in Section V, for an alternative to integrationism for applying global egalitarianism to questions that arise at the level of political practice. I claim that egalitarians should abandon Direct Application and be

less stipulative about the implications of their view than integrationism suggests.

## II

I believe that the broad appeal of EE can be partly attributed to its ability to identify those responsible for bearing mitigation and adaptation burdens on the basis of a plausible explanation of the development of climate change. More concretely, it provides substance to the conviction that the group of states we might call the ‘early industrialisers’ – or perhaps moral agents, such as individuals or corporations, within those states – have used more than their fair share of the emissions sink, and as a result of that fact must now incur costs in the present.<sup>4</sup> There are many influential endorsements of EE as a principle of historical responsibility (e.g. Agarwal & Narain, 1991; Neumayer, 2000). Indeed, EE has been central to the idea that the early industrialisers, primarily of the Global North owe an ‘emissions’ or ‘carbon’ debt to the Global South (e.g. Hickel, 2020; Matthews, 2016; Pickering & Barry, 2012; Simms, 2009, p. 104, p.150 cf., Blomfield, 2019, pp. 187–189), an idea also popular in climate advocacy.<sup>5</sup> The emissions debt argument offers perhaps the dominant frame for making ascriptions of responsibility for climate change.

Somewhat more controversially, I claim we can infer functional support for EE from the ubiquity of the FSV, even in cases where the two are not explicitly connected. There are two related grounds for this inference. First, it is plausible that in many cases EE is being assumed in invocations of the FSV. Many have been struck by the apparent self-evidence of EE as a principle of fair shares for the emissions sink (Athanasίου & Baer, 2002, pp.239–242; Singer, 2002, p. 35). As Bell (2008, pp. 239–242) has noted, such is the obvious appeal of EE as a principle of fair shares, it is often given scant defence. Second, even if EE is not being assumed, general statements of the FSV seem to beg an account of fair shares, and given the dominance of EE, it is not obvious what that alternative might be. If we can infer functional support for EE from the mere statements of the FSV, this would be significant, since the FSV is routinely stated in its generic form.

For example, the FSV can undergird the popular Polluter Pays Principle (PPP). On this view, an actor pollutes when they have used more of a resource than they should have. Although this is not, as we will see, the only way we might ground a principle of historical responsibility for climate change, it is striking that Caney himself leans heavily on this idea in his seminal early work on the topic. He is clear at numerous points that the argument from historical responsibility ‘presupposes an understanding of people’s “fair” share’ (Caney, 2010a, p. 134, p.136; see also, 2010b, p. 205, 2014, p. 18), and he endorses the PPP on this basis (Caney, 2010b). Presumably Caney is not assuming EE here, but unless he can provide an alternative account of fair shares, the open-



ended nature of his account of responsibility could be construed as providing functional support to EE, which can render the FSV concrete. Relatedly, the FSV also underpins some versions of the Beneficiary Pays Principle (BPP). The BPP holds, roughly, that those who have benefited from an injustice have duties to bear at least some of the costs associated with that injustice in the present; in the case of climate change, it holds that the receipt of benefits from unjust historical emissions grounds duties to bear mitigation and adaptation burdens. The FSV is a popular way of expressing what is unjust about the historical emissions from which present agents have benefitted, and this is reflected, for example, in Page's (2012, pp. 315–317) 'common ownership' reading of the BPP. In yet other cases, the FSV is stated more generally, aiming simply to highlight a core injustice of climate change. For instance, the deprivation of a fair share of the emissions sink as a result of past overuse has been framed as one of two central harms of climate change, along with climate impacts (Hayner & Weisbach, 2016, p. 97; Shue, 2014, pp. 196–200). Gardiner (2011) notes that '[i]f some have used up the resource, and in so doing denied others access to it, then compensation may be owed', since the 'latecomers have been deprived their fair share' (p.415; see also Gardiner, 2004, p. 580).

My argument, then, is that the popularity of the principle of equal shares of the emissions sink cannot be easily disentangled from the conviction about historical responsibility for climate change that the FSV aims to capture. This is what I have called the functional support for EE. Often, EE is explicitly advanced as a historical principle, but even when it is not, it is plausibly assumed by accounts of the FSV given the apparent obviousness of EE and its status as the dominant account of fair shares in the literature. It would therefore be significant if integrationists could not provide a substantive account of fair shares for the FSV, both because it represents attractive grounds for ascriptions of responsibility for climate change, and because it would reveal a limitation of the integrationist critique of EE, a misunderstanding of why people have been drawn to an isolationist principle.

### III

Is it true that the functional support commanded by EE is unavailable to integrationists? The most straightforward way for an egalitarian to block my argument would be to reveal integrationism is compatible with the FSV. As we have seen, Caney's work poses something of a puzzle in this regard: he has claimed both that a fair share account of historical responsibility should play a role in allocating the burdens of climate policy (through his PPP), and that integrationism renders fair shares indeterminate. He has not, to my knowledge, disavowed his commitment to the PPP, or commented on the tension it seems to stand in with integrationism. Caney's integrationism attempts to

resolve the indeterminacy of fair shares by proposing a set of global institutions to establish a process that would allow people to choose between options for fulfilling their (egalitarian) energy entitlements (Caney, 2012, p. 295ff). But it is important to note that this proposal will not help us identify agents in the real world duty-bound to incur mitigation and adaptation burdens based on their overuse of the emissions sink, simply because these comprehensive institutions do not exist and have not existed in the past. Note that this is not merely a matter realising an account of emissions shares in practice: the institutions are, on Caney's view, part of the process *for working out* what a fair share is.

Perhaps, though, the egalitarian could develop an account of complex fair shares that maintains the spirit of integrationism, connecting the FSV to a more general egalitarianism of advantage. In particular, they might use an equalising distribution of a natural resource to calculate fair shares and then apply the FSV to determine overuse. Directing shares to the disadvantaged would tend to reduce global inequalities, and if the FSV only penalised overuse of these shares, then it might maintain a suitably egalitarian character. The sensitivity of this complex version of the FSV to a range of benefits of burdens would address the concern about the narrowness of EE. Unlike EE, complex fair shares would not be static, since an agent's claim to a natural resource at  $t_1$  will be different to the claims of others and likely different from their own at  $t_2$ . We can state this modified account of fair shares, in its generic form, as follows.

*Complex Fair Shares:* (a) A's fair share,  $x$ , of R should equalise advantage, and (b) if A exceeds  $x$ , then they are liable to bear (at least some portion of) the costs stemming from the overuse of R.

On its own, this modification would be insufficient to address the concerns egalitarians have raised about natural resource exceptionalism. Another idea central to the egalitarian critique is that natural resources are often 'fungible' or 'substitutable'. Once we have shifted our focus away from specific natural resources and on to a general egalitarian currency, we will notice that different resources can play an equivalent role in fuelling a person's advantage (Armstrong, 2017, pp. 72–72; Caney, 2012, pp. 283–291). When this is the case, a resource is substitutable. The emissions sink is an example of such a resource. By using the Earth's forests or seas as 'sinks' for our emissions, we are using them instrumentally: specifically, we are using them in our production of energy.<sup>6</sup> But we know that the fossil fuel-based energy which relies on the emissions sink is not the only possible source available to us. A number of alternatives exist, such as solar and wind, which do not require the emissions sink. We can thus further modify the FSV.

*Complex Substitutable Shares:* (a) A's fair share,  $x$ , of R (i) should equalise advantage, (ii) depends on A's access to permissible resource substitutes; (b)

if A exceeds  $x$ , then they are liable to bear (at least some portion of) the costs stemming from the overuse of R.

This modification requires more work. In particular, we would need to know how to determine whether a resource was a permissible substitute and whether an agent had 'access' to it. I assume that doing so would be possible, though, and it is clear that an account of fair shares derived directly from egalitarianism would have to attend to the substitutability of different resources in fuelling a more general advantage.

In light of the egalitarian critique of natural resource exceptionalism, this account of complex fair shares has *prima facie* appeal. It expresses the idea that an agent's claims to a resource depends on their level of advantage and access to goods which fulfil an equivalent purpose for them, as measured in terms of human wellbeing. Since Complex Substitutable Shares is derived from a general account of distributive justice, it can be considered integrationist, but unlike Caney's five-step procedure, it might offer the possibility of capturing resource overuse. We can state the climate-specific version as follows.

Complex Climate Shares (CCS): (a) A's fair share of the emissions sink (i) should equalise advantage, (ii) depends on their access to permissible alternative forms of energy; (b) if they exceed their fair share, then they are liable to bear (at least some portion of) the costs of climate mitigation and adaptation.

The question is whether integrationist egalitarians could move to CCS to rescue a fair share account of historical responsibility for climate change. I will not be able to consider all of the implications of CCS, but I will highlight two issues that cast doubt on its prospects. Both problems are practical, and so will tell against integrationism insofar as the view aims to provide an alternative to EE that can guide climate change burden sharing in practice.

First, and most obviously, note that despite not requiring the construction of comprehensive global institutions, CCS nonetheless generates significant informational demands, particularly in comparison with EE. Rather than comparing historical use of a resource against a static equal share, CCS requires us to judge an agent's past actions against a dynamic fair share that changes according to their comparative level of advantage and access to resource substitutes. Operationalising such a view for the purposes of climate change burden sharing would therefore require CCS to be simplified in a number of ways. For example, as well as deciding on a proxy for identifying relative advantage, the dynamic nature of fair shares requires us to decide upon certain time increments which determine how regularly an agent's share should change according to their advantage and access to resource substitutes. As alluded to above, we would also need to know more concretely what it means for an agent to have 'access' to permissible alternative forms of energy, and then to be able to determine over time whether this was the

case. These are not exhaustive of the informational demands generated by CCS, but they suffice to make the point that the incorporation of the egalitarian critique of resource exceptionalism risks undermining their ability to provide an account of climate change burden sharing that is practicable.

Second, CCS encounters what we can call ‘conversion problems’, which arise as a result of differences in agents’ ability to translate the emissions sink into advantage. To see the issue, recall that the integrationist critique of natural resource exceptionalism holds that shares of natural resources should be *equalising* of advantage, a claim reflected in clause (i) of CCS. If we understand the emissions sink as a generic benefit that fuels agent’s advantage in a uniform way, then fair shares, as suggested above, should simply be directed to the worst-off. But the emissions sink is not, of course, a generic benefit, it is a specific natural resource, and agents will vary in their capacity to convert it into advantage over time.

Given the uneven and temporally staggered process of industrial development, the problem is that there is a period before which our ability to derive an account of fair shares would be undermined by fact that only some states had the capacity to convert the emissions sink into energy at scale. When such conditions existed there would have been a great many disadvantaged agents for whom a fair share of the emissions sink – at least without an accompanying trading scheme or large-scale technology transfers – would not alleviate their disadvantage, and this would undermine our ability to find a plausibly ‘equalising’ account of fair shares to underpin CCS. As such, CCS could not be applied across the full period of historical emissions. This contrasts with EE, which is not tied to considerations about how the emissions sink might alleviate disadvantage, and in principle could provide a complete account of historical responsibility. The decisiveness of this problem, of course, depends on the degree to which we want accounts of climate justice to cater to considerations of historical responsibility. My aim here, as I have said, is to reveal the extent to which integrationism is inherently hostile to ascriptions of responsibility, which I do not think has been appreciated in the literature to date.

#### IV

Without further argument, then, the integrationist cannot respond to my challenge by insisting that they can move to an account of complex fair shares. That seems a problem given the plausibility of the underlying FSV as a way of grounding ascriptions of responsibility for climate change. Indeed, the problem appears especially acute for Caney, who has endorsed both integrationism and the FSV. In contrast, the problems for CCS are a boon for EE, insofar as my functional defence of the principle of equal shares is plausible. EE can provide an account of fair shares for the FSV, and so can provide a way

of expressing the popular conviction about responsibility for climate change. In this section, I will consider an alternative response to my challenge. Rather than trying to salvage the FSV, the integrationist egalitarian might instead appeal to principles of climate responsibility that do not require fair shares. This would allow them to deny the significance of the functional support commanded by EE: they could, against the grain of much writing on climate justice, maintain that an account of the overuse of the emission sink is not necessary for making plausible ascriptions of responsibility for climate change. I will consider two such alternative principles. I am sceptical that either possibility will help the integrationist.

a.

Rather than appealing to the FSV, egalitarians might appeal to:

Responsibility for Climate Harm (RCH): Agents are responsible for bearing mitigation and adaptation burdens in line with their contribution to climate harm. An agent's contribution to climate harm can be understood as their proportional contribution to cumulative global emissions.

RCH is importantly different to the FSV. The FSV assigns responsibility by identifying the overuse of a fair share within some aggregate limit; RCH seeks to ascribe responsibility as a form of liability for harmful emissions (see, e.g. Gardiner, 2004, pp. 578–584). There has been much debate about whether we can properly hold contemporary agents, notably nation states, liable for their harmful historical emissions. For example, many have suggested that excusable ignorance about the effects of historical emissions blocks ascriptions of responsibility for wrongful harm but not ascriptions of responsibility for transgressing a principle of historical fair shares (Blomfield, 2019, pp. 184–189). But even accepting the force of these worries, egalitarians might accept a qualified version of RCH that assigns responsibility for those emissions that are not excusable on grounds such as these. Along these lines, Armstrong (2019) has appealed to a principle of natural resource conservation which holds that 'those responsible for causing pollution are obliged to bear the costs of remediation,' and '[i]n cases where there is more than one responsible actor ... each should bear costs in proportion to their share of the responsibility' (p. 557).

RCH is not a principle that can be reconciled easily with the integrationist articulation of global egalitarianism, and we need not rehearse the long-standing debates about liability for harmful historical emissions to see this. In order to ascribe responsibility, RCH treats all emissions as equally morally salient. It does so by attaching the same cost to them when working out what an agent should contribute to mitigation and adaptation: their responsibility for climate change is understood as corresponding to their *proportional contribution* to cumulative emissions. As we have seen, though, global

egalitarians object strongly to the idea that all emissions are equivalent. At the heart of integrationism is the claim that emissions should be considered in light of their varying contributions to relative levels of advantage and so should not be treated as having equal moral significance. What we need to know, then, is whether RCH can provide satisfactory grounds for assigning equal costs to emissions even though they have very different implications for human wellbeing.

The most promising way to vindicate RCH's departure from integrationism is to appeal to the harm principle. The idea is that we can assign equal costs to all historical emissions because (1) it is wrong to cause harm, and (2) emissions cause an equal amount of harm. Given the harm principle commands widespread support and is generally taken to yield a strong normative constraint on action, it would offer plausible grounds to depart from integrationism. The problem with this suggestion is that (2) is implausible according to our best physical and social scientific understandings of the production of climate change harm. It is not true that disaggregated emissions each cause the same amount of harm: greenhouse gas emissions are absorbed by different parts of the biosphere for different lengths of time, and when they return to the atmosphere they combine with other emissions to drive changes in general weather patterns, which in turn set back people's interests as a result of the way they strain infrastructures and undermine social practices (see, e.g. Jamieson, 2015, p. 31). Denying the claim that disaggregated emissions are equivalently harmful is not necessarily to deny that they are harmful – nor, of course, is it to deny that climate harm in the aggregate is immensely harmful.<sup>7</sup>

There are arguments that can be developed for the conclusion that emissions should be considered as equally harmful for the purposes of responsibility for climate change mitigation and adaptation, even though, as a matter of fact, they do not cause equal harm. We might move to the claim that disaggregated emissions increase the expectation of harm, and that this is grounds for treating them as equally harmful (e.g. Broome, 2019). But the more we modify or move away from the harm principle, the less obvious it is that the global egalitarian will have reason to depart from integrationism and assign equal costs to all (non-excused) previous emissions. At the very least we require some further argument here, as integrationism's strong presumption against treating emissions as equivalent makes it *prima facie* inconsistent to hold both that emissions are not equally harmful and that we ought to attach equal costs to them for the purposes of ascribing responsibility for the burdens of climate change mitigation and adaptation.

b.

Alternatively, global egalitarians might turn to luck egalitarianism to ground ascriptions of responsibility for climate change. Luck egalitarianism is generally advanced as a way of resisting the counterintuitive conclusion that

egalitarians should seek to correct inequalities in advantage that stem from reckless choices. Stated simply, it claims:

Luck Egalitarianism 'It is unjust if some people are worse off than others through their bad luck' (Lippert-Rasmussen, 2016, p. 1).

As we can see from this statement of the view, luck egalitarianism expresses a *general* claim about responsibility and advantage; it does not attempt to ascribe responsibility for the use of specific goods, for example, natural resources, or for particular harms, such as climate change.

It is unlikely that prominent global egalitarians would find an appeal to luck egalitarianism attractive. Despite aiming to cater to considerations of responsibility when it comes to allocating the costs of responding to conservation problems, Armstrong (2017, pp. 82–88) worries about the centrality luck egalitarianism affords to considerations of responsibility. For Caney (2012, p. 265), luck egalitarians should be integrationists since they are concerned with advantage broadly construed, not simply with individual natural resources. If Armstrong is explicitly sceptical of the view and Caney thinks it would be encompassed by integrationism, it is unlikely either would appeal to luck egalitarianism as a way out of the tension I have put to them.

Still, it might be that Armstrong and Caney are mistaken, and that luck egalitarianism can in fact help us make plausible ascriptions of responsibility for climate change. For example, luck egalitarians might endorse an account of historical responsibility for climate change – on either the FSV or RCH – if doing so would be *instrumental* for eliminating the influence of luck on the distribution advantage. Whether this instrumental relation holds, though, is controversial. According to Kasper Lippert-Rasmussen (2015), the canonical formulation of luck egalitarianism may throw up some deeply counterintuitive implications when applied to questions of responsibility for climate change, because climate harm might contribute to the amelioration of an undeserved inequality between future generations advantaged by accumulated economic growth and the generally less wealthy present. This is an intergenerational version of the levelling down problem – it suggests not only that luck egalitarianism cannot vindicate plausible ascriptions about responsibility for climate change but also that the present would promote distributive justice by refraining entirely from costly burden sharing.

I doubt that such an implication follows from luck egalitarianism, both because it is unlikely that future generations could remain at least as well off as the current generation without substantial mitigation, and because of the way climate change impacts are particularly damaging to the interests of the disadvantaged members of the current generation (see, e.g. Callies & Moellendorf, 2021; Moellendorf, 2022, pp. 35–54). Lippert-Rasmussen (2015, p. 117) alludes to these points, but in my view underestimates them. In fact, on the assumptions that patterns of global advantage are significantly a

matter of luck rather than of voluntary choice, and that high historical emissions generally correlate with advantage, then it is plausible that a principle ascribing responsibility for climate change will have an instrumental relationship with luck egalitarianism. I believe that egalitarians should be attracted to applied principles that stand in an instrumental relationship with equality, and I will return to this point below.

Of course, even though it is plausible that burdening those with high historical emissions might *generally* be instrumental for luck egalitarianism, this relationship is not perfect. A general principle of historical responsibility for climate change will not in all cases contribute to the elimination of luck on the distribution of advantage (Lippert-Rasmussen, 2015, p. 123ff). Egalitarians attracted to a general principle of historical responsibility for climate change, then, would need a rationale for accepting contingent and imperfect instrumental support.<sup>8</sup> I suggest that we can find a rationale, but it involves abandoning Direct Application. That is, if individual claims to particular natural resources must be derived directly from an egalitarian theory of distributive justice, then we cannot endorse a principle that regulates access to a resource which deviates from egalitarianism in some cases. I believe this will be acceptable for luck egalitarians, who are generally pluralists, accepting that departures from equality can sometimes be justified all things considered. I think it should be acceptable for global egalitarians, too. Before explaining why, let me reiterate the present point that integrationists cannot simply appeal to luck egalitarianism to motivate plausible ascriptions of historical responsibility for climate change. They would apparently not want to, for one, and the direct application of luck egalitarianism would not always align with a general principle of climate responsibility.

## V

The inability of global egalitarians to identify the overuse of the emissions sink is a strike against both their critique of EE and the independent plausibility of their view. I have further argued that it is unlikely egalitarians can appeal to some alternative principle to ground ascriptions of responsibility for climate change. I will not be able to defend in full an account of how we should apply egalitarianism to climate change burden sharing, and so my arguments will be somewhat preliminary. But I believe my alternative to integrationism points in the right direction. I have foreshadowed the general idea: global egalitarians should apply their views to practical questions less directly than integrationism seeks to. Specifically, I claim that global egalitarians have neglected the importance of *derivative* principles. Although my approach has been motivated by a dissatisfaction with how integrationism handles the issue of climate change, it will have more general implications –



that is, the species of derivative principle I advocate for could be applied, *mutatis mutandis*, to other issues.

As we have seen, integrationism is partly a claim about how to apply a principle of distributive justice to practical issues of international burden sharing: we should keep in view a range of goods and should, in almost all cases, apply a principle of distributive justice directly to practice. Integrationism can be usefully compared to a mode of applying principles which Sangiovanni (2016, pp. 14–21) calls *instrumental*. According to instrumental, practices should be understood solely as an instrument for realising ‘higher-level principles and values for which we have independent justification’ (p. 15). The idea, stated simply, is that higher-level principles act as goals toward which practices must aspire, and the task of applied theory is to connect these principles with the relevant empirical details that would allow us to realise these goals.

In a central respect, integrationism resembles instrumental. The integrationist demand that we approach the problems that emerge from global politics with a view to equalising background advantage clearly instrumentalises those problems and the practices from which they emerge for egalitarian justice. But there is an important contrast. Sangiovanni (2016, p. 16) develops instrumental on the basis of a distinction drawn by G.A. Cohen between fundamental principles and rules of regulation. Fundamental principles, according to Cohen (2008), express our deepest convictions, and we can justify these principles without making reference to the empirical details of a particular practice. Rules of regulation are derivative: they are what we endorse in order to specify the implications of our fundamental commitments in practice. For Cohen, rules of regulation are derivative not only in the sense that they are sensitive to the empirical details of practices but also in that they cater to numerous moral considerations aside from distributive justice. Rules of regulation therefore allow us to express pluralism, reflecting the fact that our moral judgments about practical issues will likely implicate a number of different values. Cohen (2008, e.g. p. 286) famously believed that the difference principle should be viewed as a rule of regulation, on the grounds that it catered to a range of considerations, such as stability and publicity, which ought properly to be considered as external to distributive justice.

I agree with Sangiovanni (and Cohen) that global egalitarians should seek to apply their view through derivative principles. Integrationism’s failure to leave room for this type of principle – its attempt, captured by Direct Application, to instrumentalise the climate change burden sharing solely for purposes of egalitarian justice – helps explain why it goes wrong. Global egalitarians have moved too quickly from a moral judgment about distributive justice to claims about how specific benefits and burdens should be shared out in practice: there are important differences between a fundamental principle of egalitarian justice and, for instance, the principle we should

endorse to regulate access to the emissions sink over time. But I am sceptical that rules of regulation are the right type of derivative principle to help us think about climate change burden sharing.

Rules of regulation have a distinctly organisational function, and they seem to imply certainty about how higher-level principles relate to one another and the presence of comprehensive institutional capacity. Described by Cohen (2008), rules of regulation are 'optimum rules to live by, all things considered' (p. 275); they are 'devise[s] we adopt, precisely, in light of [their] likely effects' (p. 265). The contexts of international burden sharing that animate debates about global justice, however, are characterised by deep injustice and fragmented and inadequate institutional capacity. Faced with these circumstances, I suggest global egalitarians look for a different type of derivative principle, with rather more modest aims. *Applied principles of global justice*, as I understand them, are principles egalitarians can endorse to guide international burden sharing, bringing equality into contact with other moral considerations in nonideal practical settings characterised by injustice and absent or fragmented institutional capacity. Applying egalitarianism through applied principles of global justice is less prescriptive than integrationism, as global egalitarians could plausibly disagree with one another about which applied principles to endorse. But I believe egalitarians should agree about three key features of applied principles of global justice.

First, applied principles of global justice aim to provide responses to problems that take seriously their practical structure. I mean this in quite a specific sense. Applied principles of global justice are not directed at improving global institutional capacity, nor do they require comprehensive global institutions in order to specify their content – instead, they identify agents who ought to incur costs in relation to a particular problem that arises at the level of international politics. A contrast with Caney's integrationism will be illustrative. In attempting to derive people's entitlements to emissions without appealing to derivative principles, Caney's integrationism demands comprehensive institutions that allow people to choose between different combinations of resources for fulfilling their overall entitlements (Caney, 2012, p. 291ff). These institutions require access to and the ability to systematise a range of information, including the energy demands of different healthcare needs and forms of food production. Setting aside concerns about developing global institutions with this sort of capacity, it is an implication of Caney's view that we cannot specify people's shares of emissions without them. An applied principle of global justice, in contrast, must be able to specify how access to a scarce carbon budget ought to be shared in a way that allows us to point to particular actors in the world liable to incur burdens. To be clear, construing applied principles of global justice in this way does not entail denying that global institutional capacity ought to be improved, and that agents are separately duty-bound to bring this improvement about.

The claim is just that egalitarians should want to identify duty-bearers in practical settings of international burden sharing that do not rely on these measures.

Second, applied principles of justice maintain the instrumental relationship between equality and political practice in the form of an egalitarian constraint. This constraint will circumscribe the applied principles an egalitarian can endorse in line with the strength that assign to the value of equality (Tomlin, 2012, pp. 376–380). For example, a *strong* constraint would hold that how well a principle does in alleviating background inequalities in wellbeing will be a key factor in determining whether we ought to endorse it, but we could also articulate *moderate* or even *weak* versions that do not advance such a priority for equality in practical judgments about global justice. The stronger the constraint, the more an applied principle of global justice will look like integrationism. Although by applying only to involuntary disadvantage, the constraint could be luck egalitarian in character, it could also be tied to an outcome-based egalitarianism if we were sceptical, like Armstrong, of the central role luck egalitarianism affords to responsibility. Of course, there are details about the content of this constraint to be worked out, but the basic point is that although egalitarians need not derive principles directly from egalitarianism, they will want principles of burden sharing to have progressive effects on global inequality.

Third, in cases where applied principles of global justice depart from what would be demanded by a direct application of egalitarianism, the departure must be vindicated by a general rationale that is responsive to other moral considerations that bear on a particular practical issue of international burden sharing. The aim here is to reflect the pluralism of egalitarianism: applied principles of global justice must have an egalitarian character – expressed by the egalitarian constraint – but when we are confronted with a particular issue, we might think that other moral considerations should play a more central role in the allocation of burdens. Clearly, principles like the PPP or BPP would not directly apply egalitarianism to the burdens of climate policy. My claim, which I will try and make a little more concrete below, is that they could in principle be endorsed by global egalitarians as a way of responding to the problem climate change burden sharing *if* they had a generally progressive effect on global inequalities *and* catered to some other moral consideration that was implicated in this context.

## VI

Applied principles of global justice, then, deny that we should apply egalitarianism directly to questions of international burden sharing. Endorsing global egalitarianism at the level of fundamental principle does not determine the applied conclusions we should advance, and there is ample room for

disagreement on this matter among global egalitarians themselves. I will not argue at length for EE as an applied principle of global justice, but let me close by showing how such a defence might work. Primarily this will serve an illustrative purpose, and although I do think that EE looks considerably more attractive as an egalitarian principle when viewed from this perspective, my case against integrationism does not stand or fall on the plausibility of this positive argument – even if global egalitarians would reject EE as an applied principle of global justice, it remains significant that integrationism appears to prevent them making ascriptions of responsibility for climate change. I suggest that my alternative mode of application would better allow global egalitarians to make sense of range of context-specific judgments about global justice.

First, and most obviously, EE takes seriously the problem of climate change burden sharing as it arises. It allows us to identify actors who should bear mitigation and adaptation costs, and it can identify them without requiring, as Caney's five-step procedure does, the development of comprehensive global institutions. As such, a suitably worked out version of EE could play an important role in discussions about climate justice, allowing us, on the basis of a rationale which is intelligible and of broad appeal, to condemn actors for failing to take their share of mitigation and adaptation burdens.

Second, EE could plausibly satisfy an egalitarian constraint. This is because historical use of the emissions sink is closely correlated with contemporary wealth. Advantaged states have – per capita – been able to accumulate capital partly through their high levels of emissions, and this point can be missed in statements of integrationism, where the emissions sink looks like a generic, fungible resource. Of course, the details will be important: how equalising EE is will depend on the timespan over which it is applied, how the balance is struck between production- and consumption-based accounting of emissions, and so on.<sup>9</sup> Egalitarians would also want to follow a convention and limit EE in cases where it would impose burdens on agents below a sufficiency threshold (see McLaughlin, 2023b). But that inequitable historical use of the emissions sink is closely connected with contemporary patterns of advantage is essential to debates about climate justice, and it is supported by empirical evidence (e.g. Gore, 2020; Shue, 1999, p. 533; Singer, 2002, p. 31).

Finally, EE could be construed as catering to non-distributive moral considerations relevant in this context, particularly the value of maintaining relations of respect between nations. It is plausible that pluralist global egalitarians should think that interactions between communities in international politics should be characterised by respect. Importantly for our purposes, it is widely recognised that maintaining relations of respect requires that interactions in the present be sensitive to the historical social context which gives content to the demands agents make of one another, and which

frame how different courses of action are understood.<sup>10</sup> EE, as we have seen, allows us to capture something central about the struggle for climate justice: inequitable use of the emissions has had a profound impact on the material conditions experienced by people in different parts of the world and has constrained the development of the states of Global South by depriving them the opportunity to use fossil-fuels to facilitate their economic growth. Unlike the economic debt that saddles many states in the Global South, this debt is denied practical relevance (Simms, 2009, e.g. p. 106). My claim is that the rationale provided by EE for capturing this feature of the development of climate change could plausibly be supported by the ideal of respect for nations, and it does not require us to give up our commitment to egalitarianism.

Again, these brief remarks clearly do not amount to a full defence of EE as an applied principle of global justice. It remains open for the egalitarian to agree with my case against integrationism but to claim that EE is an unattractive applied principle of global justice. Focusing on EE has been helpful for drawing out the problems with integrationism, but perhaps that is all. My general claim is that adopting a less determinate but more pluralistic approach to the application of their fundamental commitments would allow egalitarians to arrive at more plausible judgments about climate justice as well as about global justice more generally.

## Notes

1. There is debate about how to establish this limit (Gardiner, 2017; McLaughlin, 2023b; Moellendorf, 2015), but I will set this issue aside.
2. For a separate objection see Blomfield (2013). Blomfield's central claim is that a tendency to refer to the 'atmosphere' rather than the broader 'global emissions sink' has allowed philosophers to frame the problem of emissions shares as one involving a common resource. This is too quick, in her view, as communities have territorial claims to (non-atmospheric) parts of the global emissions sink that will disturb the principle of equal shares. I will not be able to consider this argument, but I am sceptical that territorial claims extend to include the right to benefit from the specific capacity of natural resources to sequester greenhouse gases, and my primary interlocutors will likely share this scepticism. See Armstrong (2015).
3. For a sense of the broader influence of integrationism see Blomfield (2019, 2016, pp. 72–74); Baatz (2014, pp. 8–10); Duus-Otterström (2014, pp. 457–459); Moellendorf (2016, p. 108); McLaughlin (2023b). Andrew Walton (2020) has also developed an account of integrationism in the context of debates about global trade. For critical engagement with integrationism see Baatz and Ott (2017); McLaughlin (2023a).
4. Note that these burdens could take the form of either direct penalties or reduced future allowances of resources such as emissions. See Torpman (2021, pp. 363–365).

5. Bolivia notably brought a proposal to the UN based on climate debt. See Bali Action Plan: Submission by the Republic of Bolivia, 2009).
6. Valuing sinks instrumentally for their ability to sequester greenhouse gases is compatible with valuing them noninstrumentally in other senses. See Goodin (2010).
7. It is noteworthy that John Broome, one of the staunchest defenders of the idea disaggregated emissions in general cause harm, admits that 'an individual's emissions may or may not do harm' (Broome, 2019, p. 110). Note, also, that I will not be able to dwell on the broader implications of this point. For example, the claim that emissions do not cause equal harm might be thought to have implications for accounts of loss and damage, but I set this issue aside. Thanks to an anonymous reviewer for pressing me to clarify this point.
8. Lippert-Rasmussen's discussion applies luck egalitarianism directly to climate change burdens, but he also alludes to the indirect approach I adopt below (Lippert-Rasmussen, 2015, pp. 123 note 46).
9. The connection between current national wealth and inequitable historical use of the emissions sink is especially stark if we opt for consumption-based accounting. Torpman (2021, pp. 364–366).
10. For the claim that relations of respect between nations requires taking responsibility for the past see, Thompson (2002). For a clear expression of the more general idea that respectful relations require a commitment to reflecting on the significance of past interactions see, Hill (1991).

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## Notes on contributor

*Alex McLaughlin* is a Lecturer in Political Theory at the University of Exeter. His work focuses on questions of global and intergenerational justice, particularly as they arise in relation to climate change.

## ORCID

Alex McLaughlin  <http://orcid.org/0000-0001-9213-2788>

## References

- Agarwal, A., & Narain, S. (1991). *Global warming in an unequal world: A case of environmental colonialism*. Centre for Science and Environment.
- Armstrong, C. (2013). Natural resources: The demands of equality. *Journal of Social Philosophy*, 44(4), 331–347. <https://doi.org/10.1111/josp.12040>
- Armstrong, C. (2014). Justice and attachment to natural resources. *Journal of Political Philosophy*, 22(1), 48–65. <https://doi.org/10.1111/jopp.12014>
- Armstrong, C. (2015). Climate justice and territorial rights. In J. Moss (Ed.), *Climate change and justice* (pp. 59–73). Cambridge University Press.
- Armstrong, C. (2017). *Justice & natural resources: An egalitarian account*. Oxford University Press.
- Armstrong, C. (2019). Sharing conservation burdens fairly. *Conservation Biology*, 33(3), 554–560. <https://doi.org/10.1111/cobi.13260>
- Athanasidou, T., & Baer, B. (2002). *Dead heat: Global justice and global warming*. Seven Stories Press.
- Baatz, C. (2014). Climate change and individual duties to reduce GHG emissions. *Ethics, Policy & Environment*, 17(1), 1–19. <https://doi.org/10.1080/21550085.2014.885406>
- Baatz, C., & Ott, K. (2017). In defence of emissions Egalitarianism? In L. Meyer & P. Sanklecha (Eds.), *Climate justice and historical emissions* (pp. 165–198). Cambridge University Press.
- Bell, D. (2008). Carbon justice? The case against a universal right to equal carbon emissions. In S. Wilks (Ed.), *Seeking environmental justice* (pp. 239–257). Rodolphi.
- Blomfield, M. (2013). Global common resources and the just distribution of emission shares. *Journal of Political Philosophy*, 21(3), 283–304. <https://doi.org/10.1111/j.1467-9760.2012.00416.x>
- Blomfield, M. (2016). Historical use of the climate sink. *Res Publica*, 22(1), 67–81. <https://doi.org/10.1007/s11158-015-9312-z>
- Blomfield, M. (2019). *Global justice, natural resources, and climate change*. Oxford University Press.
- Broome, J. (2019). Against Denialism. *The Monist*, 102(1), 110–129. <https://doi.org/10.1093/monist/ony024>
- Callies, D., & Moellendorf, D. (2021). Assessing climate policies: Catastrophe avoidance and the right to sustainable development. *Politics, Philosophy and Economics*, 20(2), 127–150. <https://doi.org/10.1177/1470594X211003334>
- Caney, C. (2012). Just Emissions. *Philosophy & Public Affairs*, 40(4), 255–300. <https://doi.org/10.1111/papa.12005>
- Caney, C. (2018). Climate Change. In S. Olsaretti (Ed.), *The Oxford handbook of distributive justice* (pp. 664–688). Oxford University Press.
- Caney, S. (2005). *Justice Beyond Borders*. Oxford University Press.
- Caney, S. (2010a). Cosmopolitan justice, responsibility, and global climate change. In S. Gardiner, S. Caney, D. Jamieson, & H. Shue (Eds.), *Climate ethics: Essential readings* (pp. 122–146). Oxford University Press.
- Caney, S. (2010b). Climate change and the duties of the advantaged. *Critical Review of International Social and Political Philosophy*, 13(1), 203–228. <https://doi.org/10.1080/13698230903326331>

- Caney, S. (2014). Climate change, intergenerational equity and the social discount rate. *Politics, Philosophy & Economics*, 13(4), 1–23. <https://doi.org/10.1177/1470594X14542566>
- Cohen, G. A. (2008). *Rescuing Justice & Equality*. Harvard University Press.
- Commitments for Annex I Parties under paragraph 1(b)(i) of the Bali Action Plan: Submission by the Republic of Bolivia, *Evaluating developed countries' historical climate debt to developing countries*. <http://climate-debt.org/wp-content/uploads/2009/11/Bolivia-Climate-Debt-Proposal.pdf> (Accessed May 11, 2021)
- Duus-Otterström, G. (2014). The problem of past emissions and intergenerational debts. *Critical Review of International Social and Political Philosophy*, 17(4), 448–469. <https://doi.org/10.1080/13698230.2013.810395>
- Gardiner, S. (2004). Ethics and global climate change. *Ethics*, 114(3), 555–600. <https://doi.org/10.1086/382247>
- Gardiner, S. (2011). *A perfect moral storm: The ethical tragedy of climate change*. Oxford University Press.
- Gardiner, S. (2017). Reason in a dark and dangerous time. *Ethics*, 127(2), 430–465. <https://doi.org/10.1086/688746>
- Goodin, B. (2010). Selling environmental indulgence. In S. Gardiner, S. Caney, D. Jamieson, & H. Shue (Eds.), *Climate ethics: Essential readings* (pp. 231–247). Oxford University Press.
- Gore, T. (2020). *Carbon Inequality in 2030*. Oxfam, joint agency briefing note. Oxfam.
- Hayner, M., & Weisbach, D. (2016). Two theories of responsibility for past emissions of carbon dioxide. *Midwest Studies in Philosophy*, 40(1), 96–114. <https://doi.org/10.1111/misp.12049>
- Hickel, J. (2020). Quantifying national responsibility for climate breakdown: An equity-based attribution approach for carbon dioxide emissions in excess of the planetary boundary. *Lancet: Planet Health*, 4(9), e399–404. [https://doi.org/10.1016/S2542-5196\(20\)30196-0](https://doi.org/10.1016/S2542-5196(20)30196-0)
- Hill, T. (1991). The message of affirmative action. *Social Philosophy & Policy*, 8(2), 108–130. <https://doi.org/10.1017/S0265052500001151>
- Jamieson, D. (2015). Responsibility and climate change. *global justice: Theory, practice. Rhetoric*, 8(2), 23–43. <https://doi.org/10.21248/gjn.8.2.86>
- Lippert-Rasmussen, K. (2015). A just distribution of climate burdens and benefits: A luck egalitarian view. In J. Moss (Ed.), *Climate change and justice* (pp. 102–128). Cambridge University Press.
- Lippert-Rasmussen, K. (2016). *Luck Egalitarianism*. Bloomsbury.
- Matthews, D. (2016). Quantifying historical carbon and climate debts among nations. *Nature Climate Change*, 6(1), 60–64. <https://doi.org/10.1038/nclimate2774>
- McLaughlin, A. (2023a). Integrationism, practice-dependence and global justice. *European Journal of Political Theory*, 22(4), 608–628. <https://doi.org/10.1177/14748851211071047>
- McLaughlin, A. (2023b). The limit of climate justice: Unfair sacrifice and aggregate harm. *Critical Review of International Social and Political Philosophy*, 26(6), 942–963. <https://doi.org/10.1080/13698230.2020.1786306>
- Moellendorf, D. (2015). *The moral challenge of dangerous climate change*. Cambridge University Press.
- Moellendorf, D. (2016). Taking UNFCCC Norms Seriously. In C. Heyward & D. Roser (Eds.), *Climate justice in a nonideal world* (pp. 104–122). Oxford University Press.
- Moellendorf, D. (2022). *Mobilizing Hope*. Oxford University Press.



- Neumayer, E. (2000). In defence of historical accountability for greenhouse gas emissions. *Ecological Economics*, 33(2), 185–192. [https://doi.org/10.1016/S0921-8009\(00\)00135-X](https://doi.org/10.1016/S0921-8009(00)00135-X)
- Page, E. (2012). Give it up for Climate Change. *International Theory*, 4(2), 300–330. <https://doi.org/10.1017/S175297191200005X>
- Pickering, J., & Barry, C. (2012). On the concept of climate debt: Its moral and political value. *Critical Review of International Social and Political Philosophy*, 15(5), 667–685. <https://doi.org/10.1080/13698230.2012.727311>
- Sangiovanni, A. (2007). Global justice, reciprocity, and the state. *Philosophy & Public Affairs*, 35(1), 3–39. <https://doi.org/10.1111/j.1088-4963.2007.00097.x>
- Sangiovanni, A. (2016). How practices matter. *Journal of Political Philosophy*, 24(1), 3–23. <https://doi.org/10.1111/jopp.12056>
- Shue, H. (1999). Global Environment and International Inequality. *International Affairs*, 75(3), 531–545. <https://doi.org/10.1111/1468-2346.00092>
- Shue, H. (2014). *Climate justice: Vulnerability and protection*. Oxford University Press.
- Simms, A. (2009). *Ecological debt: Global warming and the wealth of nations*. Pluto Press.
- Singer, P. (2002). *One world: The ethics of globalization*. Yale University Press.
- Thompson, J. (2002). *Taking responsibility for the past*. Polity Press.
- Tomlin, P. (2012). Can I be a Luck Egalitarian and a Rawlsian? *Ethical Perspectives*, 19(3), 371–397. <https://doi.org/10.2143/EP.19.3.2172296>
- Torpmann, O. (2021). Isolationism and the equal per capita view. *Environmental Politics*, 30(3), 357–375. <https://doi.org/10.1080/09644016.2020.1785809>
- Vanderheiden, S. (2011). Globalizing Responsibility for Climate Change. *Ethics & International Affairs*, 25(1), 65–84. <https://doi.org/10.1017/S089267941000002X>
- Walton, A. (2020). Trade justice: An argument for integrationist, not internal, principles. *Journal of Political Philosophy*, 28(1), 51–73. <https://doi.org/10.1111/jopp.12198>