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Moderate Emissions Grandfathering*

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Abstract: Emissions grandfathering holds that a history of emissions strengthens an agent's claim for future emission entitlements. Though grandfathering appears to have been influential in actual emission control frameworks, it is rarely taken seriously by philosophers. This article presents an argument for thinking this an oversight. The core of the argument is that members of countries with higher historical emissions are typically burdened with higher costs when transitioning to a given lower level of emissions. According to several appealing views in political philosophy (utilitarianism, egalitarianism, prioritarianism, and sufficientarianism) they are therefore entitled to greater resources, including emission entitlements, than those in similar positions but with lower emissions. This grandfathering may play an especially important role in allocating emission entitlements among rich countries.

Keywords: climate justice; emission rights; egalitarianism; grandfathering; prioritarianism; sufficientarianism; utilitarianism.

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I. Introduction

A key ethical issue raised by harmful climate change is the allocation of greenhouse gas emission rights. One group of views is historical, in the sense that it takes into account past emissions. A well-known position of this general type focuses on ‘historical responsibility’, holding that past emissions *weaken* the claim for entitlements to future emissions.

An alternative historical view proposes ‘grandfathering’ of emissions, suggesting that past emissions *strengthen* the claim for future entitlements. Unlike the historical responsibility view, the grandfathering view appears to have been highly influential in actual emission control frameworks. Yet grandfathering is little discussed by philosophers, and when it is, it is typically dismissed as being patently unjust. Simon Caney, for instance, writes that grandfathering ‘seems perverse’, and that ‘as a matter of justice, it has very little, if anything, to recommend it’.¹ Dale Jamieson similarly writes that to ‘[d]istribute permissions [to emit] on the basis of existing emissions’ is ‘implausible’.² This article presents reasons for thinking that assessment unfair.

The starting point of the argument is that members of countries with high historical emissions are typically burdened with higher costs when transitioning to a given reduced level of emissions than are members of otherwise similar countries with lower historical emissions (section II). This will engage the concern of utilitarians, as the transition costs ensure that emission rights tend to promote welfare better when allocated to high emitters than when allocated to otherwise equivalently situated persons (for instance, lower emitting but equally rich persons). The argument

¹ Caney, 2011, p. 88.

² Jamieson, 2010a, pp. 271-72.

can be extended to appeal to several views widely discussed in political philosophy – namely egalitarianism (section III), prioritarianism (section IV), and sufficientarianism (section V).

The position this argument supports can be referred to as *moderate grandfathering*. Moderate grandfathering says that an agent's past emissions offer a pro tanto reason for future emissions entitlements to be given to that agent. A pro tanto reason for something is a reason that supports that thing, whatever other reasons – which may be stronger and countervailing – apply. My argument is that an agent's high prior emissions provide a reason for that agent to have high entitlements, though other facts may provide reasons for that agent to have low entitlements. Other principles, such as historical responsibility, are often defended as part of a pluralistic overall view.³ There is no reason why grandfathering cannot also be defended on that basis.

Another important feature of my argument is that it provides only a derivative or *instrumental* moral basis for grandfathering. I think both theorists and activists often oppose grandfathering simply because they see emissions themselves as bad. But emissions are clearly only bad contingently. In the past, anthropogenic global warming has been welcomed as increasing agricultural output and delaying the next ice age.⁴ Were those its main effects, emissions would not be bad. This suggests that what matters is not emissions per se but their effects. My argument is, in essence, that emissions are in one respect instrumentally bad (they increase harmful climate change), but in another instrumentally good (they enable beneficial activities). Our task is to reduce the badness such that the loss of goodness is minimized. I argue that

³ Gosseries, 2004; Caney, 2005a; 2010; Page, 2008; 2011.

⁴ Callendar, 1938, cited in Jamieson, 2010b, p. 77.

this involves significant emission reductions, but ones consistent with giving more than average entitlements to those high emitters who significantly benefit from them.

Like most other philosophers writing on emission rights, I assume a broadly cosmopolitan account, treating the allocation of emission entitlements as a matter of distributive justice which ultimately derives from individuals' equal moral standing.⁵ Such an account is consistent with allocating emission rights to communities or countries for practical reasons.⁶ Towards the end of the article I explain how, on this ground, moderate grandfathering can play a role in establishing the international allocation of emission entitlements (section VI).

II. Utility

Several writers have described the apparent appeal of grandfathering as following from the difficulty that high emitters face in reducing their emissions. Tim Hayward suggests that grandfathering 'is justified by its proponents on the grounds that the high emitters are locked into their carbon dependence and that any attempt to reduce their emissions too abruptly would be catastrophic for them, and perhaps for the global economy as a whole'.⁷ Clearly this is only part of a justification for grandfathering; aside from making good on the controversial empirical claims, a principled explanation for why the (apparently) catastrophic effects of abrupt emissions reductions would legitimate less radical reductions is needed. This explanation is needed because lesser reductions will, plausibly, create catastrophic effects of their own, and we need some way of comparing these costs.

⁵ For Caney's general cosmopolitan position see Caney, 2005b.

⁶ Goodin, 2008; Baer et al, 2008.

⁷ Hayward, 2007, p. 449. See also Singer, 2006, p. 420.

The proto-argument for grandfathering is developed further by Wesley and Peterson by bringing in *utilitarianism*. As they note, ‘people in industrialized countries have developed life plans on the expectation that they would be able to carry out certain activities, such as driving around in automobiles, that may even be necessary for normal functioning in the societies in which they live’.⁸ Were severe emissions reductions brought in, a ‘great loss in utility in the industrialized countries could be thought to stem from the violation of individuals’ legitimate expectations’.⁹ As poor countries do not have a similar dependence on emissions, they would be less vulnerable to emission limits.

However, as Wesley and Peterson observe, this argument is not empirically credible. Emissions reductions in rich countries, in contrast to those in poor countries, typically concern luxuries.¹⁰ It is not very plausible that the loss of luxuries in the rich world could constitute a graver catastrophe in utilitarian terms than the loss of necessities in developing countries, either resulting from emission constraints or from climate change itself.

The key move in generating a successful argument for grandfathering is to reposition the considerations appealed to by the proto-argument as *pro tanto* considerations. So the reply to those¹¹ who object that grandfathering rewards rich polluters by giving them huge emission rights and harms the non-polluting poor by giving them minimal emission rights is that grandfathering need not do neither. It may

⁸ Wesley and Peterson, 1999, pp. 178-79.

⁹ Wesley and Peterson, 1999, p. 186.

¹⁰ Agarwal and Narain, 1991; Shue, 1992; 2010a.

¹¹ Caney, 2009, p. 128; 2011, p. 88; Grubb, 1989, p. 83; Moellendorf, 2009, p. 117.

be that on account of countervailing factors high emitters get no more than low emitters.

To see this first reconsider utilitarianism. Some account should be taken by utilitarianism of the transition costs suffered by historically high emitters. But that could not justify an above average level of resources, including emissions rights, as there is a powerful countervailing consideration. This is the fact that historically high emitters are *in general* inefficient converters of resources into utility. As historically high emitters will generally, for the foreseeable future, live in richer countries, a dollar (or an apple, or a bottle of water, or a medicine) given to the typical high emitter will yield less utility than a dollar (or other resource) given to the typical low emitter. A resource has greater value to someone on, say, half of the global average income than it would to someone on double the global average income. And of course, if we are working with the current massive global inequality, the opportunity cost of assigning resources to the rich is even higher. These considerations of diminishing marginal utility will be mitigated by the fact that in *one* class of resource – emission rights – historically high emitters will benefit in one regard (absence of painful transition costs) that low emitters will not from a given level of the resource. But that is not enough to overturn the opposed effects in all or virtually all other classes of resources. Utilitarianism thus does not suggest that available resources, such as emissions rights, are disproportionately allocated to high emitters.

But none of this is sufficient to establish that utilitarianism does not support moderate grandfathering. Rich countries would be due even fewer resources had they not been high emitters. By illustration, consider two agents (who may be individuals or countries) of an identically high level of wealth. One of our agents, High, is a historically high emitter, but the other, Low, has, unusually, acquired her wealth

through low emissions. Other than the effects on their productive processes and preferences of their respective emissions levels their circumstances are identical.

When deciding how to allocate a fixed reduction in emissions between these two agents, it seems clear that the utilitarian will assign greater emissions rights to High than to Low.¹² Suppose, for example, that High emits 10 tonnes and Low emits 5 tonnes, and it has been decided that their combined emissions need to be reduced to 10 tonnes. A policy of equalizing emissions imposes a huge 5 tonne reduction for High, and no reduction at all for Low. A policy of moderate grandfathering, by contrast, would give limited priority to the higher emitter, for instance assigning 6 tonnes to High and 4 tonnes to Low. This is a 4 tonne reduction for High, and a 1 tonne reduction for Low. While these reductions will typically be painful for both agents, they significantly reduce the severity of the cuts required of the higher emitter, while imposing only a moderate burden on the lower emitter. Utility is very likely maximized in this case by allowing High to have greater emissions than Low.

Furthermore, High will still be due greater emission rights than Low when we bring a third agent, Poor, into the picture. In this case, we assume that Poor is due greater emission rights than High or Low as extra emissions for her will promote welfare even more than extra emissions for High will. But this addition of a third party does not affect the relative importance of assigning emission rights to High and Low. Though High is due less than Poor, she is still due rather more than Low as emissions cuts for High still impose greater welfare penalties than cuts for Low.

¹² In this and the following paragraphs ‘emission rights’ should be read as ‘emission rights and/or the means of purchasing emission rights’, with the ‘means’ being relevant only if emissions trading is permitted – on which I take no stance here.

If this is the case in a High-Low-Poor world, it follows that there is a relevant difference between a scenario in which only Poor and High are present, and a scenario in which only Poor and Low are present. In both cases Poor has a greater claim on emission rights, but the inequality of emission rights is not quite as great in the first case as in the second case on account of the fact that denying High emissions has a greater hit to welfare than does denying Low. Perhaps tonnage in a High-Poor world should be split 4-6, but in a Low-Poor world 3-7 would promote utility better. This demonstrates that, even where the higher emitter has lesser emission rights, the higher emissions still strengthen the case for emission rights. Thus, even if the real world consists almost entirely of rich high emitters and poor low emitters, grandfathering is relevant and not unjust. The rich will be due a little more than they would be if they had not emitted so much. Furthermore, the high emitting rich will be due more than the low emitting rich even where there is an emissions trading regime, as they will otherwise be disadvantaged by the cost of buying permits.

Note that the claim is *not* that high emitters suffer a higher ‘marginal abatement cost’, in the sense given to that in the economic literature as the cost of one extra unit of emissions reduction. In the first place, marginal abatement costs are standardly assessed in monetary terms, whereas my focus is on *welfare* costs. However human welfare is properly defined, it will not be in monetary terms. On one common view, for instance, an individual’s welfare level increases with the satisfaction of her preferences.¹³ A unit of emissions reductions can have both a monetary cost but no preference satisfaction cost (as where lost money is not missed), and a preference satisfaction cost but no monetary cost (as where preferred high-emission leisure activities are avoided).

¹³ Hare, 1981; Harsanyi, 1982; Raz, 1986, ch. 12; Arneson, 1989.

Furthermore, the argument would be quite compatible with higher emitters having *lower* marginal abatement costs even if (counterfactually) marginal abatement costs coincided with welfare costs. The argument does, after all, grant that emissions reductions should be in proportion to prior emissions, so an agent who emits more than others will have to reduce emissions by more. For instance, under moderate grandfathering in the High-Low world, High had to reduce her emissions by six times the amount that Low had to reduce hers. For that to be justifiable, one would expect that the cost of *each unit* of reduced emissions would be lower for higher emitters. The respect in which high emitters face high transition costs is that they have to cut *more units* to reach a given lower level of emissions.

Note that, in the real world, agents with high emissions will have varying levels of difficulty in transitioning to lower emissions. Hence there can be no linear relationship between prior emissions, transition costs, and future entitlements. But moderate grandfathering is justified in practice as prior emissions either *always* impose transition costs on agents or impose such costs *often enough* that informational limitations make the best policy that of assuming transition costs, and hence assigning extra emission rights.

III. Equality

Many will be unmoved by the above argument. After all, utilitarianism is often considered implausible because it ‘is not sensitive to the distribution of burdens and benefits across individuals (or countries)’.¹⁴ I will now suggest that, perhaps surprisingly, several egalitarian views which can hardly be accused of distribution insensitivity can serve the argument just as well as utilitarianism.

¹⁴ Soltau, 2009, p. 143.

Consider first *equality of welfare*, which simply seeks to equalize individuals' welfare levels. This view is concerned with the transition costs of historically high emitters, but in a different way than utilitarianism. While utilitarianism sees the moral relevance of these costs in terms of the reduction in the overall amount of utility they impose, equality of welfare sees their moral relevance in terms of how they affect the *relative advantage level* of the emitter.

Against the current backdrop of massive global inequality, equality of welfare delivers a similar result to utilitarianism, but for different reasons. In such circumstances it recommends an overall distribution that, at first glance, shows no similarity with grandfathering. Granting extra emission rights to historically high emitters would increase global inequality of welfare, which is the opposite of the goal. But on closer inspection it becomes apparent that moderate grandfathering is in fact playing a role. In the first two-agent case we previously considered, it is clear that High is due more than Low according to equality of welfare because the former's high transition costs constitute what Ronald Dworkin calls 'expensive tastes': High requires above average resources, including emission rights, to secure equal levels of welfare.¹⁵ For instance, High may require 6 tonnes of emissions to achieve 5 units of welfare, while Low requires only 4 tonnes of emissions to achieve the same welfare level. As in the utilitarian case, the rationale for treating emissions as more valuable when assigned to High than when assigned to Low remains even where we bring in Poor, who is worse off in welfare terms. Similarly, the amount of emission rights required to equalize Poor's position with High is less than the amount of emission rights required to equalize Poor's position with Low.

¹⁵ Dworkin, 1981a.

Dworkin has argued that equality of welfare ought to be rejected. Furthermore, he specifically objects to its implication that expensive tastes require compensation, which was essential to the above egalitarian case for grandfathering. Such compensation is especially problematic, Dworkin seems to suggest, where the taste was chosen. For instance, ‘suppose that someone (Louis) sets out deliberately to cultivate some taste or ambition he does not now have, but which will be expensive in the sense that once it has been cultivated he will not have as much welfare on the chosen conception as he had before unless he acquires more wealth’.¹⁶ That equality of welfare would recommend that Louis be compensated for his acquisition of, say, a taste for vintage claret is, Dworkin maintains, ‘embarrassing for the theory ... because we believe that equality ... condemns rather than recommends compensating for deliberately cultivated expensive tastes’.¹⁷ About this much Dworkin appears to be correct, and so we should be dubious about equality of welfare. But his critique points towards further extensions of the main argument. Both an adaption of equality of welfare, and Dworkin’s favoured alternative, can support moderate grandfathering.

Dworkin’s indictment of compensation for deliberately cultivated expensive tastes suggests that *equality of opportunity for welfare* might be a better account than straight equality of welfare. Equality of opportunity for welfare seeks to equalize individual welfare levels, except insofar as individuals are responsible for bringing about unequal welfare levels. As applied to expensive tastes, it offers compensation for *involuntarily* acquired tastes, while denying compensation for voluntarily acquired

¹⁶ Dworkin, 1981a, p. 229.

¹⁷ Dworkin, 1981a, p. 235.

tastes.¹⁸ As such it appears to be immune to the Louis counterexample to equality of welfare. But can it support grandfathering as equality of welfare can?

Here the relevant question is whether high emitters have voluntarily acquired their practices and tastes which are dependent on emissions.¹⁹ Some general doubts about voluntariness can be raised. Both Richard Arneson and G. A. Cohen, the two leading proponents of equality of opportunity for welfare, suggest that if the metaphysical position of hard determinism is true – that is, that all events, including human action, are antecedently caused, and that that is inconsistent with free will or responsibility – equality of opportunity for welfare has exactly the same prescriptions as equality of welfare. While we certainly cannot assume such a sceptical picture on voluntariness, it is equally cavalier to assume its falsity. Our metaphysical doubt at this point is perhaps best modeled by treating even the most evidently voluntary actions as *partially* involuntarily.²⁰

There are also factors specific to emitters' tastes which may cause us to doubt their voluntariness. Individuals' tastes are significantly influenced by upbringing, for which they cannot be held responsible. Given that climate change has only been well understood since the 1990s, tastes acquired during adulthood but decades ago can also

¹⁸ Arneson, 1989; Cohen, 1989.

¹⁹ Thus, though luck egalitarianism focuses on individual responsibility, it does so in a very different way to much of the environmental ethics literature. In particular, its first concern is with 'responsibility as attributability', which is what an individual has brought about (see Scanlon, 1989, ch. 6). This contrasts with 'substantive responsibility', which concerns the obligations an individual is now under. The latter is the more usual focus in environmental ethics. See, for instance, Sinnott-Armstrong, 2010; Hourdequin, 2010; Booth, 2012; Raterman, 2012.

²⁰ Knight, 2009, pp. 152, 187.

be treated as relevantly involuntary:²¹ as Cohen has emphasized, it is responsibility for the *expensiveness* of a taste that matters for justice, rather than its mere possession.²² Finally, the social context in which individuals find themselves may mean that some high emission practices can only be avoided at a significant welfare cost. For instance, in some areas transport by car may be the only viable option. While these costs could be avoided through significant curtailment of mobility or relocation, it is clear that someone faced with such a choice who decides to stay mobile and in the same area – perhaps because this is the only reliable way to stay employed – is often not responsible for the fact that they need more resources (including emission rights) to secure the same welfare as others.

An objection to compensation for such costs is raised in Axel Gosseries' insightful analysis of grandfathering from a perspective similar to equality of opportunity for welfare. He suggests that '[t]here may be cases in which ... transition losses should be compensated, in the same way as other disadvantageous circumstances call for compensation'.²³ However, he opposes grandfathering of emissions – except as a transitional measure, or for emissions made prior to 1995. The key question for Gosseries is 'whether the potential transition losers should not have considered the initial regime as obviously illegitimate'.²⁴ If the transition losers, such as higher emitters, should have been able to tell that their regime was 'obviously illegitimate', they are not entitled to compensation. Only one argument for this position is presented, and as with so many arguments against grandfathering, it is

²¹ This has been proposed as a basis for a limitation on principles of historical responsibility; see Gosseries, 2004; Caney, 2010.

²² Cohen, 2004.

²³ Gosseries, 2005, p. 298.

²⁴ Gosseries, 2005, p. 299; see also Gosseries and Hungerbühler, 2006.

convincing only against stronger versions of the view. Gosseries maintains that ‘it would be morally unacceptable (and even absurd) to allow men to claim compensation from women for losses resulting from the cancellation of clearly undue privileges’ acquired under a regime of workplace gender discrimination.²⁵ This much we can readily allow, but it is insufficient to establish that grandfathering should play no role where there is awareness of illegitimacy. In the workplace example, the net compensation should clearly be from men to women, who have suffered serious disadvantages relative to men. Nevertheless, some men will be disadvantaged more than other men by the change – Gosseries even mentions ‘those who have invested in their career, suddenly facing a shrinking of their promotion perspectives’.²⁶ Equality of opportunity for welfare requires that more disadvantaged men are compensated, either by transferring less to women than less disadvantaged men transfer or (what comes to the same) by receiving transfers from less disadvantaged men. Moderate emissions grandfathering takes high emitters to be relevantly similar to more disadvantaged men, in that they face involuntary high transition costs which require increased entitlements if equality of opportunity is to be secured. Although these entitlements arise through a history of clear illegitimacy, Gosseries has presented no reason for thinking that they themselves are illegitimate.²⁷

A referee suggested that, where some practice is obviously illegitimate, that obvious illegitimacy bars *any* compensation – even compensation from other participants in the illegitimate practice – in the event that the practice is ended. For

²⁵ Gosseries, 2005, p. 299.

²⁶ Gosseries, 2005, p. 299.

²⁷ Indeed, Gosseries and Hungerbühler (2006, p. 125 n. 7) allow that ‘[t]axing less affected men to compensate more affected men’ may be permissible, but Gosseries does not recognize the clear parallel between more affected men and high emitters.

instance, '[i]f I'm a slave owner, in a period when slavery is acknowledged to be morally odious and illegitimate, then the revenue I derive from my slave I have no legitimate entitlement to. Thus if that revenue is taken from me, I have no legitimate claim to compensation from it, any more than a thief has a legitimate claim to be made whole if someone else takes his stolen loot'.

The crucial question here is how far high emissions can be shown to be relevantly equivalent to slavery, in that they are obviously illegitimate. There are two forms of obvious illegitimacy. Slave owning is obviously illegitimate in both respects, but it is arguable that high emissions are obviously illegitimate in only one.

First, then, a practice itself may be obviously illegitimate. It seems reasonable to assume that, like a slave economy, a high emission economy is obviously illegitimate. Gosseries writes that 'the legitimacy requirement ... is not satisfied in the case at hand, at least from 1995 onwards, for current emissions are higher than the level of emissions that countries should have aimed at from that date onwards'.²⁸ As the legitimacy requirement is not met, Gosseries concludes that compensation for the losers of the transition to low emissions is unjustified. But from the cosmopolitan perspective both he and I assume, this would be to put the cart before the horse. Even though, in practice, individual compensation will probably have to be facilitated by granting countries increased emission rights in international negotiations, countries are not morally fundamental agents, and their prior actions, however illegitimate, can not justify disadvantages being imposed on their members. As far as equality of opportunity for welfare goes, at least, the relevant kind of responsibility is individual, and outside a few exceptional cases (presidents, prime ministers, and the like), individuals are not responsible for their countries' actions.

²⁸ Gosseries, 2005, p. 300.

This leads us into the second kind of obvious illegitimacy. Here it is not the social practice, but an individual's actions, which form part of that practice, that is the focus. For instance, 'a slave owner, in a period when slavery is acknowledged to be morally odious and illegitimate' will routinely engage in obviously illegitimate practices. He will be confronted with overwhelming proof of that illegitimacy on a daily basis, both in terms of the public condemnation he faces and his firsthand experience of the misery he inflicts. It is far from clear, however, that the typical member of a high emitting society faces similarly unavoidable and incontrovertible evidence of the illegitimacy of their actions. Part of the problem here is simply that, in spite of the scientific consensus, there is no shortage of people, some of them in prominent public positions, who deny that anthropogenic climate change is a reality. But there are deeper barriers to the obviousness of high emissions' illegitimacy. As Jamieson has noted, '[o]ur current value system presupposes that harms and their causes are individual, that they can readily be identified, and that they are local in space and time'.²⁹ As such, it is not well equipped to identify the harm associated with climate change, which results in part from 'seemingly innocent acts', and has 'diffuse' and 'remote' causes. For high emissions, there is no consequence of human suffering 'right here, right now' as there is for slavery. These and other difficulties make climate change infamously intractable for the layperson.³⁰ Equality of opportunity for welfare implies that individuals can not fairly be denied compensation for costs where they arise from differences 'in their awareness of [the] options, their ability to choose reasonably among them, and the strength of character that enables a

²⁹ Jamieson, 2010b, p. 83.

³⁰ See Gardiner, 2011.

person to persist in carrying out a chosen option'.³¹ Though the issue is not clear cut, it seems likely that it would be unfair to deny high emitters transition compensation on the grounds that their emissions were obviously illegitimate.

In sum, while the support given to grandfathering by equality of opportunity for welfare is less secure than that of equality of welfare, as some emitters' actions and tastes might in principle be identified as voluntary or illegitimate, there are both general and specific reasons for maintaining that the practices and tastes of high emitters are standardly neither fully voluntarily nor obviously illegitimate. That is enough to establish that they are due some level of compensation on account of the expensive tastes and practices which have been shaped by their prior emissions.

The third egalitarian view to be considered is Dworkin's *equality of resources*. This view seeks to equalize a somewhat complicated form of resources. The relevant point here is that equality of resources suggests that the appropriate response to expensive tastes is to ask whether the holder identifies with them. Where individuals disidentify with their tastes, preferring not to have them given the option, '[t]hese are, for them, handicaps, and are therefore suitable for the regime proposed for handicaps generally'.³²

Do historically high emitters identify with their expensive tastes, or are they compensable 'cravings'? On the face of it, many high emitters do not regret their habits. For instance, some drivers take pride in their fuel inefficient cars as a badge of social status.³³ George H. W. Bush's declaration at the Earth Summit in 1992 that 'the American way of life is not negotiable' appears to reflect this sort of view.

³¹ Arneson, 1989, p. 86; see also Cohen, 1989, pp. 916-17.

³² Dworkin, 1981b, p. 303.

³³ See Schwartz Cohen, 1997; Böhm et al, 2006; Paterson, 2007.

There are, nevertheless, several reasons for doubting that identification with high emitting practices would be widespread where a global scheme of major emissions reductions was put in place. One factor here might be increased social awareness of the effects of climate change that such a scheme would introduce. Another more narrowly self-interested factor would be the increased expense of high emission tastes to the individual where reductions in emissions are encouraged by increases in the cost of emitting. On Dworkin's view it is (dis)identification with one's tastes *and their expense* that matters for distribution. An analogy can be drawn with the decline of cigarette smoking in developed countries, which is attributable to a combination of increased awareness and expense. The decline of *identification* with smoking is even higher (as many smokers disapprove of their habit), and disidentification with high emission tastes might be even higher given that they are rarely if ever physically addictive as smoking is. A further point is that Dworkin does not propose to take just any (dis)identification as distributively significant. He writes that '[p]ersonality is not fixed: people's convictions and preferences change and can be influenced and manipulated. A complete account of equality of resources must therefore include, as a baseline feature, some description of the circumstances in which people's personalities will be taken as properly developed'.³⁴ We might think that, in at least some cases, those who identify with their high emitting lifestyles, in spite of the unfolding environmental catastrophe and in spite of the increased running costs of their fuel inefficient cars, have been manipulated and should not be disadvantaged on account of their identification as it is inauthentic.

We should not overdraw the argument here, and acknowledge that there are probably some cases where compensation ought in principle to be denied to high

³⁴ Dworkin, 2000, p. 159.

emitters. Nevertheless, it seems that the standard case would be one of compensation, on account of either disidentification or inauthentic identification. As with equality of opportunity for welfare, it may be that non-compensable cases are sufficiently few and hard to identify that the best policy would be blanket compensation at a less than complete level. Disidentification provides another possible link between prior emissions and emission entitlements.

IV. Priority

Some writers have suggested that a concern with the interests of the worst off need not be a concern with their relative standing, as all the aforementioned versions of egalitarianism suggest. This seems appealing in light of the fact that any of the above forms of egalitarianism are committed to ‘levelling down’. For instance, if ‘half of some population are blind ... egalitarianism would view a move to an *entirely* blind world as a good, or just, outcome in at least one respect’.³⁵ To avoid this kind of problem, we might focus on the absolute, non-comparative position of the worst off. In this section and the next I suggest that the main two views of this kind may support grandfathering.

Derek Parfit suggested that we should be concerned with maximizing the absolute advantage levels of the worst off, a view which has become known as *prioritarianism*.³⁶ The simplest version of prioritarianism has only this concern.³⁷ This view, when combined with welfarism, can deliver a straightforward argument for

³⁵ Page, 2006, 81.

³⁶ Parfit, 1996.

³⁷ Rawls’ (1999a) difference principle has this simple structure, though he combines it with other principles.

grandfathering. If High and Low are granted identical levels of resources, including emission rights, High would be disadvantaged in terms of absolute levels of welfare on account of the transition costs that High faces. For instance, High may have difficulty getting to work if he has only equal emission rights, as his country is car dependent, while Low can easily get to work with low emissions on his country's effective public transport system. Even if emission permits could be traded, and High bought some of Low's permits, High would still be disadvantaged, as he would now have less money than Low. High is thus due a higher initial level of resources than Low in order to maximize the welfare level of the worst off.

The simple form of prioritarianism is often (in effect) combined with utilitarianism, to provide a limited priority to the worst off. As both components of this position support grandfathering, the overall view does as well.³⁸ This limited priority view has itself been combined with responsibility considerations similar to those of equality of opportunity for welfare to create 'responsibility-catering prioritarianism'.³⁹ As all three components of this view support grandfathering, it again follows that the overall view does.

V. Sufficiency

The second view concerned with the absolute position of the worst off, and the final view to be considered, is *sufficientarianism*. On this view, distributive justice requires not that benefits be maximized, equalized, or directed to the worst off, but that individuals be provided with enough. Different versions of sufficientarianism answer the question of 'how much is enough?' in different ways. Harry Frankfurt's influential

³⁸ The same goes for combinations of utilitarianism and egalitarianism (see Parfit, 1984, p. 339).

³⁹ Arneson, 2000a, pp. 339-49.

early discussion treated individuals as having enough where they are contented with what they have, while Roger Crisp has more recently suggested that individuals have enough where an impartial spectator would stop having compassion for them.⁴⁰ In any event, the crucial feature of the view is that benefits to individuals below the threshold of enough have unconditional priority over benefits to individuals above the threshold.

Sufficientarianism may seem unpromising as a basis for grandfathering. After all, the view and its close relatives are familiar in a climate ethics context as a basis for limiting the emission entitlements of the high emitting rich.⁴¹ We should, however, be careful to distinguish the high emitting rich's richness from their high emitting. Once we do so, it becomes apparent that some forms of sufficientarianism, at least, can support grandfathering. For instance, cutting the emissions of High so they are at the same level as Low's emissions will leave Low no less content (she can emit as much as before) but High discontent (she has to emit much less). This difference is morally important on a Frankfurtian view which treats individuals as having enough where they are content with what they have, and justifies High having greater entitlements than Low.⁴² And for reasons that should by now be familiar, this follows even where Poor is present, and even where emissions entitlements are tradable. Thus, avoidance of below-threshold disadvantage offers a sixth possible link – after avoidance of utility loss, relative disadvantage, involuntary relative

⁴⁰ Frankfurt, 1987; Crisp, 2003.

⁴¹ Agarwal and Narain, 1991; Shue, 1992; 2010a; Caney, 2005a; 2010. For criticism see Knight, 2011.

⁴² I say 'Frankfurtian' as Frankfurt's own view is concerned only with the distribution of money. For a view which takes contentedness with welfare levels as the measure of enough, see Huseby, 2010.

disadvantage, disidentification, and absolute disadvantage – between prior emissions and emissions entitlements.

Still, some forms of sufficientarianism are less likely to support grandfathering. Whether Crisp's view would give rise to grandfathering is unclear. Cutting the emissions of High so they are at the same level as Low's emissions will certainly not make it the case that the spectator should feel compassion for Low, but may or may not make it appropriate to show compassion for High. That will depend on the extent of the impact on High, and on the proper conception of compassion, on which Crisp offers little guidance. Furthermore, on the minimalist form of sufficientarianism familiar from climate ethics, it seems clear that grandfathering would not be supported. Henry Shue, for instance, writes that 'those living in desperate poverty ought not to be required to restrain their emissions, thereby remaining in poverty, in order that those living in luxury should not have to restrain their emissions'.⁴³ If the threshold of enough is set low, so that only those who are poor (or badly off in welfare terms) by global standards are below it, it seems clear that a typical high emitter will not be in danger of falling below the threshold even with disproportionate cuts, and hence grandfathering will not be supported.

There is, however, an important caveat. Versions of sufficientarianism with low thresholds are rarely intended as overall accounts of justice. It is not very plausible that, when it comes to distributing some good, such as emission allowances, the only distributive goal is to ensure that the very badly off are provided for. The amount of the good that the (merely) badly off and the averagely off get also matters, to some significant extent. Thus, precisely insofar as sufficientarianism fails to support grandfathering, it will need to be complemented by other principles. If those

⁴³ Shue, 2010a, p. 202; see also Shue, 2010b, pp. 107-10.

other principles are utilitarian, egalitarian, prioritarian, or even (less minimalist) sufficientarian, they may themselves provide grounds for grandfathering.⁴⁴

VI. Practical Implications

While the egalitarian, prioritarian, and sufficientarian views discussed above generally support grandfathering, it should be emphasized that they provide even stronger reasons for transferring resources from the rich to the poor than does utilitarianism. The utilitarian argument for global equality is instrumental, based on diminishing marginal utility. Egalitarians see global equality, in their favoured dimensions, as just *fundamentally*. Likewise, prioritarians see benefits to the worst off as being fundamentally just. Sufficientarians also see benefits to those below their favoured threshold as being fundamentally just. Even more than is the case with the utilitarian argument for grandfathering, we should see the egalitarian, prioritarian, and sufficientarian arguments for grandfathering as relatively small adjustments of distributions in the favour of high emitters, against a backdrop of massive emission cuts by the high-emitting rich.

It might be doubted whether the idealized conditions under which grandfathering seems plausible – in particular, those featuring High and Low – are ever actually approximated.⁴⁵ However, the practical problem of assigning emission entitlements among countries is, in one clear and important respect, relevantly similar

⁴⁴ Paula Casal (2007) suggests a minimal sufficientarian-luck egalitarian combination. Huseby's (2010) view combines minimalist sufficientarianism with maximalist sufficientarianism, as it has a 'minimal sufficiency threshold' securing basic needs, which has 'strong priority' over a 'maximal sufficiency threshold' securing contentedness, which in turn has 'absolute priority' over other objectives.

⁴⁵ A referee raised this doubt.

to the High-Low-Poor world. Quite simply, our world does contain rich high emitting countries, rich (relatively) low emitting countries, and poor countries.

An initial complication should be addressed. Our world does also, of course, contain countries that do not seem to be counterparts of either High, Low, or Poor. Middle-income countries are the main example here. However, the *relative* entitlements of the real world counterparts of High, Low, and Poor should not be affected by the presence of further parties. Of course, these further parties' emission needs may reduce the *absolute* (non-comparative) entitlements of both High and Low. But it is hard to see how these needs would affect High's entitlement relative to Low. So I will simply set aside middle-income countries in what follows.⁴⁶

I will also set aside poor countries. Almost any benefit we could assign either to a poor country or a rich country should, according to the distributive principles canvassed above, be assigned to a poor country. Thus, we can assume that poor countries will receive whatever emission entitlements they need for their development, and that virtually any claims against this that rich countries might have on grounds of grandfathering are outweighed (which is not to say disregarded).

It is, then, concerning distribution among rich countries that moderate grandfathering seems most important. To keep the discussion manageable, let us just consider the G7 countries (see Table 1).

I will start by comparing Australia with Germany. This is about as close to the High-Low example as we are likely to get in the real world. Australia and Germany are more or less as well off as each other, yet Australia emits twice as much as Germany. If we thought it was plausible for High to receive greater entitlements than Low, I think we will think it plausible for Australia to receive greater entitlements

⁴⁶ But see Knight, 2013.

than Germany. Consider the effects on these countries of grandfathered versus non-grandfathered emission allocations. A non-grandfathering rule that limits each of these countries to 6 tons per capita would impose a manageable 33 per cent cut on Germany but an extreme 67 per cent cut on Australia. Since Australians and Germans appear to start off equally well off, egalitarianism and prioritarianism would oppose such a policy as it would make Australians worse off. Utilitarians would oppose the policy for the different reason that it allocates cuts in an inefficient and painful way by forcing the lion's share on Australia. Sufficientarians probably do not recognize even post-cut Australians as below their sufficiency threshold, but any plausible sufficientarian will endorse other (maybe utilitarian, egalitarian, or prioritarian) principles that are likely to disapprove of burdening Australians in this way. The distributive principles would be much better served by a rule that incorporates moderate grandfathering, allowing Australia greater emissions than Germany while insisting that Australia makes greater cuts. For instance, Australia could be required to cut to 8 tons (a 10.2 ton or 56 per cent reduction) and Germany to 4 tons (a 5 ton or 44 per cent reduction).⁴⁷

Things are slightly more complicated where we consider countries that are not equally rich initially. For instance, the United States is somewhat richer than Italy. The complication here is the presence of a further consideration, which I will call the 'disadvantage consideration'. As we have seen, there are utilitarian, egalitarian, prioritarian, and (sometimes) sufficientarian reasons for directing extra assistance to

⁴⁷ Given that Germany has a much larger population than Australia, this policy would actually reduce emissions more than the non-grandfathering policy described earlier in the paragraph. This is not, of course, relevant to the present point. Similar considerations apply to the discussion of the United States and Italy below.

the less advantaged. That is a decisive consideration where we are comparing a rich country with a poor country. It is still relevant, though not decisive, where we are comparing two rich countries, and there are grounds, such as a disparity in income, for thinking that the citizens of one country (here, the United States) are better off in welfare (or Dworkinian resource) terms than those of another (Italy).⁴⁸ The disadvantage consideration and grandfathering consideration are countervailing where the better off country is higher emitting, as seems to be true in the United States-Italy case. There remains a clear role for the grandfathering consideration in such cases. The disadvantage consideration tells in favour of extra resources, such as emission entitlements, for the less advantaged country, so were the grandfathering consideration disregarded, we would expect Italy's overall emission entitlement to be greater than the United States'. But the grandfathering consideration suggests that, in one respect, the United States has a stronger claim for emission entitlements, namely the fact that it has a recent history of higher emissions. Exactly what the final allocation should be will depend on how we weigh these considerations against one another, a question I can not address here. But it is evident that the grandfathering consideration will shift the allocation in the United States' direction. Furthermore, this is intuitively acceptable. With the disadvantage consideration alone, the aforementioned cut to an average of 6 tons per capita should be achieved in such a way that Italy has greater entitlements – maybe the United States' entitlement would be 5 tons and Italy's 7 tons. This has the absurd result of a 12.3 ton or 71 per cent cut for the United States, and a 0.3 ton or 4 per cent *increase* for Italy. Where we take into account both the disadvantage and grandfathering considerations, much more

⁴⁸ Of course, if we instead suppose that Italians are not actually disadvantaged relative to Americans in welfare (or Dworkinian resource) terms, this case is a simple High-Low case, like Australia-Germany.

plausible options are available – for instance, entitlements of 5 tons for Italy (implying a 1.7 ton or 25 per cent cut) and 7 tons for the United States (implying a 10.3 ton or 60 per cent cut).

I have considered one case that closely approximates High-Low (Australia-Germany), and one case that may add the complication that one country's citizens are better off than the other's (United States-Italy). Most comparisons among the G7 countries fall between the two kinds of cases, but closer to the first case. For instance, Canada and Australia are a little richer than the United Kingdom and France, but not so much that any significant difference in welfare or Dworkin's resources can be inferred. Indeed, such an inference is not rock solid even in the United States-Italy case, which involves far greater economic inequality (a per capita income difference of \$13,320) – perhaps even that case should be treated as a pure High-Low scenario. I consequently hold that most of these comparisons are similar enough to the High-Low case for it to be assumed that economic considerations (for instance, Canadian per capita income being \$2,380 higher than British per capita income) are much less weighty than grandfathering considerations. The overall pattern of emission entitlements among the G7, and probably rich countries in general, can therefore be expected to be strongly influenced by grandfathering. Leaving aside the United States, which is an economic outlier and a difficult case, the high emitters Australia and Canada are due greater emissions than are the mid-level emitters Germany and the United Kingdom, who are in turn due greater emissions than the (relative to their peers) low-emitting France and Italy.

VII. Conclusion

I have argued that the costs imposed by forced movements to specific lower levels of emissions are higher for high emitters than they are for low emitters. On this instrumental ground I have defended a moderate form of grandfathering, which holds that an individual's prior emissions provide a pro tanto reason for emission rights to be granted to that individual.⁴⁹ The argument can rely on utilitarian, egalitarian, prioritarian, or sufficientarian premises, or on a pluralistic position combining more than one of these premises. While grandfathering is not a weighty enough consideration to mandate greater emission entitlements for rich high emitters rather than poor low emitters, among similarly rich countries, it is generally weighty enough to justify greater entitlements for higher emitters.

Evidently much more would need to be said to provide a full defence of moderate grandfathering. I will finish by briefly mentioning two areas in which that defence is especially needed. First, and as mentioned at the outset, I have assumed cosmopolitanism. Some would see that as giving insufficient weight to the moral value of national membership or self-determination.⁵⁰ Second, utilitarianism, egalitarianism, prioritarianism, and sufficientarianism support grandfathering best where they are combined with subjective accounts of advantage, such as welfare as usually understood or Dworkinian resources. Where an objective account, such as a conventional conception of resources or (perhaps) capabilities, is assumed, there is no reference to individual preferences, and hence the argument must proceed by referring

⁴⁹ My view has a similar emphasis to Steven Shavell's (2008, pp. 37-8) more general position 'that legal rules should be more stable than would apparently be appropriate, that is, appropriate were past behaviour not taken into account'.

⁵⁰ See Rawls, 1999b; Miller, 2007. On emission rights specifically see Miller, 2009.

only to cases of objective disadvantage.⁵¹ While some such cases support grandfathering (for instance, that of the person who can only reach her workplace if she drives), the argument proceeds less easily without subjective disadvantage.

Clearly these are major topics, and it would take me too far afield to engage substantively with them here. But it is worth pointing out that the case for grandfathering can be expected to be somewhat durable, given that a variety of well known approaches to these topics support it. Caney writes that to his knowledge, ‘no moral and political philosopher ... defends grandfathering, presumably assuming that it is unjust’.⁵² If my argument is correct, many, if not most, moral and political philosophers should, on account of their other commitments, support moderate grandfathering.

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⁵¹ Rawls’ (1999) primary goods are a more standard conception of resources. On capabilities see Sen 1999; Nussbaum 2011.

⁵² Caney, 2009, p. 128.

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Table 1. Gross national income per capita and CO2 emissions per capita of the G7 countries.⁵³

<i>Country</i>	<i>Gross national income per capita, purchasing power parity (international \$), 2009</i>	<i>CO2 emissions per capita (metric tons), 2009</i>
United States	\$45,390	17.3
Australia	\$37,500	18.2
Canada	\$37,190	15.2
Germany	\$36,500	9
United Kingdom	\$34,810	7.7
France	\$34,280	5.6
Italy	\$32,070	6.7

⁵³ Compiled from World Bank 2013a; 2013b.