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Justice in a World of Climate Change and the Distribution of Responsibilities

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SACHA BLUMEN, SEP 6 2015

Justice in a World of Climate Change

Notions of global justice are irrevocably connected with the impacts of climate change. Climate change is not just a crisis that affects the world as a whole, but one that affects global social justice (Cuomo 2011, 693). While the most privileged societies have the strongest ability to reduce greenhouse gas emissions, the “poorest and most vulnerable people” are being impacted the most heavily (Cuomo 2011, 693). The 2013 *Declaration on Climate Justice* issued by the Mary Robinson Foundation summarised these climate justice concerns (Mary Robinson Foundation-Climate Justice 2013, 1): “The economic and social costs of climate impacts cannot be ignored any longer. Nor can we overlook the injustice faced by the poorest and most vulnerable who bear a disproportionate burden from the impacts of climate change.”

It is not only individuals concerned with social justice who are interested in climate justice. The OECD has stated that it is essential to address questions of justice in order to obtain an international climate agreement (de Serres et al, 2011). Questions of justice, then, are at the front and centre of debates about the costs of mitigating and adapting to climate change.

In this essay I examine different approaches in the literature about how the costs of mitigating future climate change through reducing greenhouse gas emissions and adapting to the future impacts of climate change *should* be distributed: between the global North and South, among states, and between individuals. I discuss four approaches: grandfathering, maximising economic efficiency, equal per-capita entitlements to emissions, and historical responsibility, and critically analyse them through the international political economy lenses of liberalism, economic nationalism, and a critical perspective.

Grandfathering

Grandfathering is an approach in which countries are allocated rights to emissions based on their historical emissions and these rights are given out to countries for free (Caney 2009, 127). This principle is commonly used in practice, being drawn on in the first tranche of the European Union Emissions Trading Scheme introduced in 2005 and in the Kyoto Protocol for Annex I countries (developed countries whose emissions were regulated under the Protocol[1]) (Caney 2009, 128).

There are many strong arguments against grandfathering, primarily drawing on notions of justice. It would lock many people in developing countries into poverty and fail to take into account other paramount ethical concerns such as eradicating poverty and promoting human rights (Caney 2009, 128). Introducing grandfathering would have the effect of allocating much lower per capita emissions rights to people in India and China relative to developed Western countries, in effect preventing people in the former countries from developing their economies (Caney 2009, 128). In addition, grandfathering is contrary to the principle of historical responsibility—that the party responsible for causing an environmental wrong should bear “a commensurate cost” (Caney 2009, 128).

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By comparison, the arguments in support of grandfathering are weak. One Lockean argument paralleling the establishment of private land rights over commons lands can be made that it was initially fair for parties to emit greenhouse gases provided that the total emissions from all parties did not exceed the atmosphere's overall ability to absorb greenhouse gases. This usage of "atmospheric absorption capacity" generated rights for each party to emit certain quantities of greenhouse gases, with changes in rights only able to come about through parties trading them (Bovens 2011, 128-129). In this perspective, it is fair that different parties have differential rights to emit greenhouse gases.

While the Lockean argument may establish rights relating to past greenhouse gas emissions, it does not necessarily create particular rights to future emissions—doing so could be "bordering on moral madness" (Bovens 2011, 136). Property rights can be revoked if there are monopolies or the risk of monopoly rents on goods essential for human survival (Bovens 2011, 138) and grandfathering would simply give a monopoly of future emissions rights to historical emitters. In addition, other concerns—such as humanitarian and egalitarian ones—also have a role in determining the rights of countries to future emissions (Bovens 2011, 136). This undermines the legitimacy of grandfathering as a guiding principle for establishing future rights to emit greenhouse gases.

One argument in favour of grandfathering is based on pragmatism and not justice: that grandfathering may be necessary in order to come to an agreement to reduce greenhouse gas emissions (Bovens 2011, 124-125). Here, grandfathering has instrumental value to help obtain a climate agreement.

From a liberal perspective, while grandfathering helps protect the values of existing investments and the existing standard of living in developed countries, it detracts from global economic welfare. It does so by initially allocating emissions rights according to historical practice and not through a process (e.g. an auction) that assesses the relative values of these rights to states or other parties. While introducing tradeable emissions permits could address this latter point, it does not address the initial allocation of rights which could have a significant impact on human welfare relative to some other initial allocation.

From an economic nationalist perspective, grandfathering would benefit states that were historically high emitters to the detriment of other states, which would be constrained in developing their economies. Grandfathering can be seen as a process in which the distribution of costs is determined by political contestation. In this view, rights to emit greenhouse gases are yet another set of goods—albeit immensely valuable ones—to be contested over by states.

From a critical perspective, grandfathering could be strongly criticised on the grounds that it specifically rejects using distributive or corrective justice and fails to take into account the historical responsibility of states. The consideration and use of grandfathering in international negotiations has provoked much reflection on the philosophical foundations for how the costs of mitigating and adapting to climate change should be distributed between the global North and South, among states, and among groups of people.

Maximising economic efficiency

Another principle advocated is that greenhouse gas emissions should be reduced in an economically efficient way, which I take for convenience to mean at least cost. Policy makers often seek to achieve emissions reductions that are economically efficient by either introducing a tax on emissions (carbon tax) or introducing a cap and trade scheme. In the latter, a cap is placed on the total allowed greenhouse gas emissions and specified parties (e.g. greenhouse gas emitters) are required to purchase tradeable carbon permits corresponding to the level of their emissions.[2] Determining the rate of the carbon tax and the level of the cap are not technical questions and draw on notions of intergenerational justice among other things. Carbon taxes and cap and trade schemes have been introduced in several jurisdictions.

Two prominent proponents of maximising economic efficiency and overall global economic welfare are Posner and Weisbach (2010). They endorse a climate treaty in which emissions reductions would take place around the globe in such a way as to minimise overall costs, regardless of the economic situation of the people or countries directly affected by the reductions. To assist local countries and peoples, payments would be made to countries to account

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for the differential impacts of the emissions reductions (although the details are opaque). In addition, there should be payments to states for ethical reasons from a pool of funds generated by the difference between the climate benefits arising from the treaty and the abatement costs. While rejecting distributive justice as a basis for a climate treaty, they consider that wealthy countries should help poor countries with emissions reductions and adaptation to some extent. Posner and Weisbach argue that, provided all states are made better off by a treaty, then so will the people living in them, “and that is ethical reason enough for supporting a climate change treaty” (Posner and Weisbach 2010, 7).

The economic efficiency principle explicitly rejects using distributive or corrective justice or historical responsibility for previous greenhouse emissions as a principle. While seemingly a technical and value-free approach, maximising economic welfare is intensely value-laden and problematic (Azar 2000, 233). Benefit cost analysis (BCA), a tool commonly used in this approach, uses numerous assumptions (such as the intergenerational discount rate, the value of a human life, and future levels of greenhouse gas emissions) and makes value judgements (such as trade-offs between the number of human lives saved and reduced levels of greenhouse gas emissions): “there is a risk that BCA conceals rather than highlights the difficult trade-offs that we have to make” (Azar 2000, 236).

The use of a discount rate raises issues of intergenerational justice. This is important as the value of the discount rate can dramatically impact the level of future costs expressed in current-day dollars and its use implicitly assumes that the impacts of climate change are unlikely to be catastrophic (Hayward 2012, 846). There is an entire sub-genre of economic debate involving authors such as Stern, Nordhaus and Garnaut that focuses on arguments around how to determine a discount rate for climate change (Hayward 2012, 845-846).

From a liberal perspective, it is clearly desirable to maximise economic efficiency, as this promotes global economic welfare. Depending on the details of the specific policies that incorporate this principle, it may also promote global markets in emissions reductions and abatement. Creating incentives for parties to reduce emissions, to adapt to climate change at least cost, and to encourage future investment to be more carbon-efficient are seen in this perspective to be beneficial for human welfare.

From an economic nationalist perspective, maximising economic efficiency may be seen as dramatically impinging on the ability of individual states to develop their own domestic economies. Requiring states to reduce greenhouse emissions at least cost across the globe would result in differential levels of emissions reductions across different states. This would impose different costs on different states both in absolute terms and as percentages of gross domestic product.

From a critical perspective, grandfathering allows capital to impose the costs of climate change arising from its earlier development on other actors, in particular the international working class, the global South, and poorer people wherever they live. In addition, introducing a global cap and trade scheme may be seen as the creation of another global free market, a tool that detrimentally increases the power of capital over labour.

Equal per-capita emissions entitlements

Many authors support every person on Earth having a right to cause the emissions of an equal amount of greenhouse gases, based on some overall total global entitlement (Caney 2009, 130). Equal per-capita emissions have been supported on the basis of equity (Agarwal 2002, 375) and on the equal decision-making and use rights of the atmosphere as a global commons (Bauer 2002, 401). It is often used as the basis for determining a state’s notional historical baseline “rights” to emit against which a state’s actual emissions are compared (Neumayer 2000).

Notwithstanding its intuitive attraction, the literature contains many philosophical arguments against equal per-capita emissions entitlements. Caney questions why the distribution of emissions should be treated differently to other goods (Caney 2011, 130) and why the focus is on emissions rather than on things people value (e.g. goods). In addition, Caney considers that this approach is indifferent to the varied needs and capabilities of people such as the heating requirements for people at different latitudes and whether they are sick or healthy (Caney 2011, 90-97). Moellendorf also argues that having equal per capita emissions in developing countries may negatively impact

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poverty alleviation as it would cap emissions in those countries (Moellendorf 2015, 178).

While the arguments opposed to equal per-capita emissions entitlements have some strength, the principle has a degree of value in providing one way for human beings to have access to the atmospheric global commons. It also has the benefit of being able to be implemented in principle, as greenhouse gas emissions can be counted or estimated. Variants of this scheme, focusing say on entitlements to goods of equal value, would be much more difficult to implement.

From a liberal perspective, entitlements to equal per-capita emissions detract from economic efficiency, as different people will have different values for a set volume of emissions. One aspect of economic efficiency is that goods should be allocated to the parties that value them most highly and an equal entitlements scheme does not permit this. In addition, if the entitlements are untradeable, emissions reductions will occur inefficiently—i.e. at higher than least cost. Equal per-capita emissions entitlements then detract from maximising human economic welfare.

From an economic nationalist perspective, providing equal per-capita emissions entitlements to states could represent a windfall gain or loss depending on the state's population, its current level of emissions, and the total global permitted level of emissions. It would be expected that any interstate process considering the introduction of this principle would be a high stakes political contest, with many states considering it to be a zero-sum game.

From a critical perspective, an entitlement to equal per-capita emissions recognises the fundamental equality of all people and their rights to economic growth even within a carbon-constrained world. An ability to trade entitlements would allow high-emitting states to purchase permits from low-emitting states, providing a funding mechanism to assist developing countries. In practice, an entitlement to equal per-capita emissions would likely be implemented through states, so state mechanisms would have to be used to redistribute funds to poorer people within each state.

Historical responsibility and beneficiary pays

One area of robust argument in the literature relates to who should pay for the costs of climate change occurring due to historical emissions. The literature focuses on two main principles: *polluter pays* (or historical responsibility) and *beneficiary pays* (Hayward 2012, 843-844).

Historical responsibility has been affirmed in a number of international agreements and by organisations including the Organization for Economic Cooperation and Development in the early 1970s, the European Union (Neumayer 2000, 187; Caney 2005, 753), and in the Kyoto Protocol under the principle of “common but differentiated responsibilities” (United Nations 1998, 9). Underpinning historical responsibility are the principles that polluter, not those harmed by the pollution, should pay for the harm they cause; that ignoring historical responsibility would allow past emitters to disadvantage poor countries; and that all people should have equal opportunity to use the absorptive capacity of the atmosphere (Neumayer 2000, 187-188).

While it is conceptually straightforward to adopt the polluter pays principle for future emissions—e.g. see Neumayer (2000) and Baer (2006)—it is more difficult to decide on a principle for allocating the costs of previous emissions. The literature raises challenges to historical responsibility: many people may have been unaware of the consequences of emitting greenhouse gases prior to some particular date; previous generations who caused emissions are no longer alive; and there are questions around which actor was responsible—states, governments, corporations, individuals, or other parties (Caney 2009, 134-135)? This last question is complex, with Banks providing one suggested answer that differentiates responsibilities according to the role a person had in a country: Order Givers, Order Followers, and Supporters. In this view, “the leaders of countries will bear a greater load of responsibility for climate change than citizens, but that citizens will not be without responsibility” (Banks 2013, 65-66).

The literature includes responses to these arguments against historical responsibility. Even if people were unaware of the impacts of greenhouse gas emissions, they are commonly held to be responsible for the impacts of their actions that were “unforeseen and unavoidable” (Shue 1999, 535). In addition, “benefits and costs, and rights and

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responsibilities, carry across generations” (Shue 1999, 537).

The beneficiary pays principle seeks to address some of the challenges posed to historical responsibility. Under beneficiary pays, the costs would be imposed not on those responsible for the emissions but on those who benefit from it (Caney 2005, 757). However, there are substantial philosophical problems with this approach arising from the “non-identity problem”. This argument states it is impossible for a policy to harm a person born after the policy was introduced as that person may not have been born in the absence of that policy (Caney 2005, 757). Regardless of the philosophical challenges with historical responsibility and beneficiary pays, they can both be seen as ways to address an intuitively grievous wrong.

From a liberal perspective, implementing historical responsibility may encourage states to act as if they will be subject to the costs of their future emissions, which may create incentives for them to reduce future emissions they are unwilling to pay for. This would tend to enhance global human welfare.

From an economic nationalist perspective, historical responsibility could be seen as representing a zero-sum game between historically high and historically low emitting states. The costs of climate change would appear to be treated quite differently to other costs imposed by one group of states on another group. It would be expected that states would contest the introduction of historical responsibility in anything but a token way, as fully implementing the policy could have very negative economic consequences on wealthy developed states. Historically low emitters would welcome historical responsibility, as it would help them enhance their development and adapt to the impacts of climate change.

From a critical perspective, it is essential that historical responsibility is part of a climate agreement as this is needed to ensure the wealthy developed states pay for the climate change problems suffered by developing states. It is essential that this does not just deal with issues between the global North and South, nor issues among states, but that it considers gender and the fact that poor people in all countries will be affected negatively by climate change. Jamieson argues that climate change is largely caused by wealthy people and suffered by poor people regardless of residence: “It is likely that more poor people will suffer from climate change in the USA than in many G77 countries” (Jamieson 2011, 33).

Conclusion

Notions of justice are key considerations underpinning how the costs of climate change are distributed under intergovernmental agreements. I have discussed four approaches which states may draw on when negotiating how to distribute those costs and the perspectives of different schools of international political economy on each of them.

From a liberal perspective, maximising economic efficiency would enhance human welfare more than the other approaches, while grandfathering and the equal per-capita emissions entitlements would detract from this goal. From an economist nationalist perspective, maximising economic efficiency may dramatically impinge on the ability of some states to develop their own economies, while historical responsibility and equal per-capita emissions could result in windfall gains or losses between states.

From a critical perspective, introducing entitlements to equal per-capita emissions or historical responsibility would promote justice by recognising the rights of all people to use the atmospheric global commons and by requiring developed states to compensate developing states for the detrimental impacts of their previous emissions. In this perspective, while grandfathering clearly promotes the interests of the global North and appears opposed to promoting climate justice, it may in fact have instrumental value in facilitating a climate agreement—a first step to instituting equal per-capita emission entitlements, full historical responsibility, or some other approach that will result in true climate justice for the peoples of Earth.

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Notes

[1] Under the Kyoto Protocol, states were required to meet a target for emissions sometime between 2008 and 2012 expressed as a percentage of their emissions in 1990. Most countries were required to reduce their emissions- Australia was allowed to increase its emissions to 108 per cent of 1990 levels (Posner and Weisbach 2010, 62-66).

[2] Conceptually, the level of a carbon tax is set equal to the negative cost of the environmental externalities resulting from climate change and the emissions cap in cap and trade schemes is set equal to the allowed total level of emissions over the relevant period of time.

Written by: Dr Sacha Blumen
Written at: Australian National University
Written for: Dr Kyla Tienhaara
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