

Introduction

On the Significance of Historical Emissions for Climate Ethics

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Since industrialization human beings have contributed to what has become known as climate change. Human activities, and especially the production, trade, and consumption of goods, have greenhouse gas emissions as their side effect. Industrialized countries are responsible for more than three times as many emissions between 1850 and 2002 as developing countries (Baumert et al., 2005: 32). These emissions have long-term global effects on the median temperature on Earth with highly unequal and predominantly negative consequences for human welfare. So far the level of welfare realized in a country or region has been strongly correlated with the historical and current levels of emissions of this region. Accordingly, the efforts of developing and newly industrializing countries to “catch up” (and to close the huge welfare disparities between them and the highly industrialized countries) have gone together with an increase of total emissions (Khan, Chapter 10). Further, the increasing number of human beings on Earth will foreseeably cause higher total global emissions.

There is no easy technical solution. To reduce global emissions drastically will require major changes in how we produce, trade, and consume goods; to prevent harm from the consequences of climate change will require major adaptations and heavy investments. With business continuing as usual, very many people and mostly poor people living in the future will become victims of the consequences of climate change as they will not have the resources and capacities to adapt to dramatically changing environmental circumstances. Also, developing countries are more vulnerable to climate change as a result of geographical factors (e.g., already higher temperatures before climate change) and higher reliance on agriculture, which is an especially vulnerable sector. Levels of historical and current emissions are correlated both positively with levels of welfare realized and negatively with the levels of (especially future) harm suffered and basic rights violated as a result of the effects of climate change. In this way poor people have lost out both in terms of benefits realized owing to emission-generating activities and

through these activities imposing the risks of rights violations predominantly on poor people living in the future.¹

For the purpose of introducing the debate to which the authors of this volume contribute, we can distinguish between industrialized and developing countries in a highly simplifying manner that does not reflect the fact that many countries cannot be grouped purely in one or the other category. (For this idealized characterization of the problem of historical emissions, see Meyer and Roser, 2010 and 2006.) The distinction relies on the fact that there is a strong (though less than perfect) correlation between (i) having emitted more in the past, (ii) having more benefits grounded in past emissions, (iii) being less vulnerable to climate change, and (iv) being wealthier in general. All these features describe the countries that took part in the so-called Industrial Revolution compared to those that till today have not undergone industrialization.

The four features are correlated to a significant degree because of causal interdependencies. As the contributions to the volume illustrate, arguments that ascribe higher duties to some countries or people than others will be based on one of these four features (higher past emissions, higher benefits from past emissions, lower vulnerability, or higher wealth). So if those features all coincide in the industrialized countries, the dispute is not about ascribing higher duties to the industrialized countries. Rather, the task consists in correctly interpreting these reasons with respect to their significance and weight, thereby specifying why and to what extent industrialized countries can be assigned higher duties.

If one succeeds in doing this, one will at least have a basis for specifying the duties of those countries in which the four aforementioned features do not coincide. Indeed, these “impure” cases have become important and will become more important as a result of the catch-up economic developments in developing countries based on high-emission technologies and the fact that groups of people within countries differ considerably in terms of features (ii)–(iv). Thus the arguments developed by the contributors to the volume arguably could be applied not only to distinctions between the industrialized and developing countries and countries with different combinations of features (i)–(iv) but also to socio-economic groups within countries and to different individuals.

Relying on the highly simplifying distinction as introduced, the relations between industrialized countries and developing countries can be described as being doubly asymmetrical: First, the industrialized countries have the main

¹ The factual claims of this characterization are supported by the main findings of the recent assessment report of the International Panel on Climate Change. See, for example, *Synthesis Report: Summary for Policy Makers* at www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf.

For a review of the state of the art of the normative issues introduced here, see the relevant chapter of the assessment report: Kolstad et al. (2015).

historical and causal responsibility for climate change and have realized large benefits from emission-generating activities, whereas the developing countries have contributed far less to the problem of climate change and have derived comparatively small benefits from emission-generating activities. Second, for the reasons given, most importantly their far better adaptive capacities, industrialized countries are likely to suffer less damage and, in terms of human suffering and the violation of basic rights of persons, less severe damage from the resulting climate change. This finding suggests that, normatively speaking, the problem of how to respond to climate change can be understood as a distributive problem with a significant historical dimension and thus a problem of historical justice. However, it differs from other problems of historical justice and especially those that address cases of historical injustice in one very important respect. Unlike in standard cases of historical injustice, it is difficult to characterize the historical emission-generating activities of people as unjust, specifically before the problem of climate change became known and, thus, before these people could have known about their contributing to long-term global and harmful consequences. (For a discussion of historical injustice more generally, see Meyer, 2006; and the contributions in Meyer [ed.], 2004.)

Allowing for some variations in detail, the contributors to the volume can be said to make use of this idealized understanding of the problem. However, this does not by itself settle the question of how the historical dimension of the problem is to be assessed. It remains to be seen whether, and if so, how past emissions and their beneficial as well as harmful consequences are normatively significant for both the attribution of responsibilities and duties in responding to climate change and the distribution of the shares of the remaining permissible emissions. These issues are at the heart of the debate and the disagreements between the contributors to the volume.

There is further common ground among the contributors: They share the understanding that we need to distinguish between past (or historical) emissions depending on who caused them when. Mostly the contributors do not discuss the relevance of the past emissions currently living people have caused in their lifetimes. The amounts of these (and the accompanying benefits realized by people) differ dramatically, and arguably this should matter when it comes to both assigning fair shares of the remaining permissible emissions among currently living people and the duties they have to support those suffering harm and losses owing to the consequences of climate change. (For an argument to this effect, see Meyer and Roser, 2010.) The contributors also share the idea that today and for some time (most) agents engaging in emission-generating activities have or could have known about the long-term global consequences and that this matters for their duties with respect to climate change. In dispute are both the character and the

normative relevance of the ignorance of previously living emitters and what the supposed or actual ignorance implies for the normative assessment of both their activities and their consequences.

To sum up, the authors of the volume focus mainly on one question of climate justice: How, if at all, and for what reasons, should the history of past people's highly unequal causal responsibilities for climate change matter for the distribution of the moral responsibilities to respond to the problem among currently living and future people? Philosophers and normative theorists have engaged in the discussion on the significance of historical emissions for approximately fifteen years (among the first publications in peer-reviewed philosophical journals are Meyer, 2004; Gosseries, 2004), and it can be considered a developed and sophisticated, but certainly not settled, debate. In the following, our aim is twofold. On the one hand, we will selectively describe some of the results of this ongoing discussion, and, on the other hand, we will indicate how the contributions to the volume engage with and advance that state of the art. That is to say, we attempt to describe the contributions to the volume in a way that places them in the context of some of the central normative–theoretical problems and debates connected with understanding the significance of historical emissions.

The Normative Significance of Past Emissions

When it comes to the assignment of responsibilities for past actions that had emissions as their side effect, the contributors to the volume disagree with respect to which principle should govern the distribution of these responsibilities. Further, they disagree about whether individuals or collectives are the appropriate bearers of responsibility for historical emissions. This reflects disagreements about fundamental theoretical issues in ethics. Here we will introduce only three of these underlying disputes: the question of whether the actions of past noncontemporaries can alter the moral duties of currently living individuals; the normative significance of the so-called Non-Identity Problem (NIP) in the context of historical harm-doing; and the relevance of the purported or actual ignorance of past people about the long-term consequences of their emission-generating activities.

When the authors disagree with respect to which principle should govern the distribution of responsibilities for historical emissions, they engage in an ongoing debate in which several distinctions have been introduced. (For a discussion of these principles, see, e.g., Meyer, 2013.) We can distinguish between principles depending on who stands under compensatory, restitutive, or redistributive duties to respond to the harmful and highly unequal consequences of past people's emission-generating activities. The Polluter Pays Principle (PPP) identifies bearers of compensatory payments for the harmful consequences of wrongful

emission-generating activities of past people.² Whether these activities can be considered wrongful is under dispute, however. A strict liability principle and certain versions of the Beneficiary Pays Principle (BPP) identify bearers of restitutive payments for the wrongless harmful and unequal consequences of past people's activities. Other principles do not rely on establishing a causal or normative relation between past people's actions and the consequences of climate change for the welfare of current as well as future people. Regardless of the causal explanation for the highly differing abilities of current actors to respond to the highly unequal consequences of climate change, the Ability-to-Pay Principle (APP) identifies bearers of redistributive payments according to a principle of distributive justice that is meant to guide us in bringing about just outcomes in the future.

Further, independent of which principle they defend, the authors disagree over whether the bearers of responsibility should be considered individuals or collectives (especially states when understood to exist over many generations as transgenerational entities with a relevantly fixed identity).³ Distinguishing between individuals and collectives as bearers of responsibility allows us to differentiate between individualistic and collectivistic versions of the PPP and BPP as well as the APP. (A collectivistic version of the PPP has been dubbed the Community Pays Principle or CPP.)

The contributors to the volume defend different versions of these principles and also differ on which agent they consider to be appropriately identified by those principles. Anja Karnein argues for an individualistic APP (Chapter 5). Mizan R. Khan supports a collectivistic APP as complementary to the PPP so that the PPP is qualified by a consideration of how well off states are. Both Khan (Chapter 10) and Thompson (Chapter 2) explicate the PPP in terms of collectives, namely, transgenerational states being the bearers of the duties (and, in doing so, they endorse what other theorists have discussed under the heading of the CPP). David Heyd (Chapter 1) explicates a principle of unjust enrichment as an interpretation of the BPP when applied to wrongless past activities with highly unequal consequences. According to Heyd industrial states are the beneficiaries of unjust enrichment, and this should be reflected in the distribution of duties to respond to climate change.

² The PPP could also be understood to identify bearers of restitutive payments owing to wrongless but harmful emission-generating activities. See later discussion and especially Section 2 for a discussion of (strict) liability for historical emissions.

³ Or, if they do not disagree on this, the authors differ in their focus. Some concentrate on collective (state) responsibility, whereas others concentrate on the responsibility of individuals. Those who discuss the responsibilities of states can be understood to assume a two-stage (or multistage) process in which in a first stage climate justice between countries is determined, after which each country will internally distribute its mitigation and adaptation burdens fairly to individuals.

On the other hand, both Brian Berkey (Chapter 6) and Karnein (Chapter 5) discuss the question of currently living people standing under special obligations owing to the emission-generating activities of past noncontemporaries in terms of today's individual persons' moral individual responsibility. Karnein rejects the idea that the mere fact that currently living people have benefited from people's emission-generating activities could be considered normatively significant in imposing duties to help others in coping with the consequences of climate change. Rather, having benefited often goes hand in hand with being wealthy absolutely speaking and, thus, being able to help others, which Karnein identifies as the valid ground for "duties to help those most vulnerable to adapt to climate change" (Karnein, Chapter 5, 121).

Berkey argues that the attribution of duties to collectives (e.g., transgenerational states) and, in particular, the attribution of duties for past actions is incompatible with the notion of individual moral responsibility and should therefore be rejected. One way to understand the claim is the following: Fulfilling these duties will imply the authoritative imposition of costs (or restrictions) on individual current people who then stand under the duty to contribute their share (comply with the restrictions). Such imposition can be understood to reflect the idea that individual current people are morally responsible for past people's emissions. Berkey rejects such an understanding since moral responsibility of agents for certain actions or outcomes in his view presupposes that the agents can or could have acted differently or could have made a difference with respect to the outcome. Obviously, this is not the case for currently living people when it comes to past noncontemporaries' actions and their consequences. They could not possibly have had any impact on what their predecessors did as they had not yet been born. On similar grounds Karnein rejects the notion that currently living people can be considered as being implicated in wrongful action simply because of having benefited from the consequences of historical emissions.

Janna Thompson, however, proposes a different understanding of the duties of individuals qua members or citizens of transgenerational states (Chapter 2). The idea is that members of such states (to whichever generation they may belong) can be understood to share a general interest in their state's fulfilling its duties of justice and throughout the time of its existence. Arguably people can realize certain values only together and as members of structured and transgenerational groups; they can live under, say, secure conditions of justice or in a tolerant society only when they are members of a transgenerational well-ordered state (cf. Meyer, 1997; Thompson, 2012; Scheffler, 2013). For such a state to exist the institutions of the state and their actions need to live up to what (political) justice requires both within the state and in its relations to other entities. Given people's interest in living in a just state, and presupposing that people have a duty to each other

to establish and secure conditions of justice (a notion often referred to as people's natural duty of justice (Rawls, 1971: 334–37)), individuals as members of states stand under duties to support their state in fulfilling its duties of justice. These duties are both forward- and backward-looking when we assume that harmful wrongdoing requires measures of compensatory justice. Accordingly, Thompson contends not only that past people's emission-generating activities may be assessed as harmful wrongdoing from a time-neutral perspective but also that the transgenerational state has been involved in these activities in such ways that this wrongdoing is to be understood as activities by people as members of the state. If so, the state can be understood to stand under duties of providing measures of compensation and its current members stand under duties to support their state in fulfilling these duties of justice.

The second underlying issue concerns the relevance of the so-called NIP (Parfit, 1984: 351–441, esp. 351–80; id; Parfit, 1986). The NIP is relevant when we discuss the question of whether individuals or collectives are to be understood as bearers of duties to respond to the consequences of past people's emission-generating activities. The NIP gives rise to doubts that currently living individuals can be understood to have been harmed or benefited by the consequences of past people's emission-generating activities. According to the common understanding of harm/benefit an action will harm/benefit a person only if the person is worse/better off than the person would have been had the action not been carried out. Arguably, past people's emission-generating activities are (very likely) among the necessary conditions of the coming into existence of today's individual persons. That is, had these activities not been carried out (or, to put it bluntly, without the industrialization in Europe and, with some delay, in other regions of the world), these very people would not exist because different people would have been born instead. However, having come into existence and as the person who they are is a presupposition for their realizing well-being today (and at a level, we assume, so that they or most of them cannot reasonably object to having been brought into existence). Thus currently living people cannot be said to have been made worse or better off by past people's emission-generating activities. And without having been made worse or better off, currently living persons cannot be understood to have their welfare rights being violated or to have been unjustly enriched. (For a discussion of alternative notions of harm doing and benefiting in the context of discussing the implications of the NIP, see Meyer, 2015: section 3.)

Owing to their interpretation of the implications of the NIP, both Heyd and Thompson argue in the volume in favor of a collectivist reading of the differing principles each of them endorses (versions of the BPP and the PPP, respectively). They both make the point that the NIP does not arise for certain collective agents in

the context of past emission-generating activities: when we presuppose that these collectives have had a continued existence as one and the same agent spanning the relevant period, that is, the times when they can be considered responsible for past emission-generating activities and today, the past emission-generating activities cannot be understood to have had an identity-instituting impact. (See Page, 2006: 150–58, for an examination of this argument.) Just as the past emission-generating activities of currently living individuals do not affect their identities as the persons they are, historical emission-generating activities do not affect the identities of transgenerational states (and among them of the industrial or rich nation-states) so long as their identities can be considered fixed for the period including the time when these activities were carried out by them or in their name.

For Berkey, on the other hand, this way of responding to the NIP is irrelevant because, in his understanding and as introduced previously, the implications of attributing responsibility to these collective agents conflict with what can be legitimately asked of individual people as moral persons: not only could they not possibly have made a difference with respect to their past noncontemporaries' emission-generating actions, currently living individuals very likely owe their personal identities to what these past people did. Thompson's interpretation of people's individual responsibilities as sketched earlier can be understood as being immune to this criticism. Arguably for the attribution of responsibilities to people as citizens their personal identities are irrelevant, and so the NIP can be evaded. One could argue for this on the basis of Kumar's response to the NIP (Kumar, 2003; Kumar and Silver, 2004).

The third underlying issue concerns past polluters' epistemic state with respect to (their purported or actual) ignorance about the long-term and global consequences of their emission-generating activities, and to this we now turn.

The Relevance of Ignorance about the Harmful Effects of Emissions

In many cases, we seem to think that ignorance of the harmful consequences of an action is relevant to assessments of moral responsibility for performing that action: If an agent does not know the consequences of a given action, or does not know that the consequences are wrong, it seems unfair to blame him or her for performing that action. (For discussions of and differing views on this issue, see, e.g., Guerrero, 2007; Harman, 2011; Rosen, 2004; Zimmerman, 1997.) For example, let us say I flick a switch to turn off the lights in my office when I leave it. I do this every time I leave because I consider it wasteful not to do it. Unbeknownst to me, while I was out for lunch a malicious colleague connected the wiring in such a way that when I flick the switch, the university library blows up, causing death and injury to people and damage to valuable books. My flicking the switch is

causally necessary for the deaths, injuries, and damage, but I would normally not be considered blameworthy for causing this harm (but presumably my colleague would be). (For a discussion of this example, see Duff, 2007: 75–77.)

However, it would be too hasty to conclude from this that ignorance always excludes blame. Consider another case: I may genuinely be ignorant of the fact that animals can feel pain. In part on this basis, I torture a baby seal. In this case, we would intuitively think that my ignorance does not excuse me from blame (and in this case no one else could be blamed). Rather than holding that ignorance always excludes blame, often a sort of hypothetical standard is being used; that is, regardless of what someone actually knows, we can identify what people can reasonably be expected to know. Being ignorant of what people can reasonably be expected to know is not, on this fairly common view, an exculpatory condition.

A central issue, therefore, in assessing whether, how, and to what extent historical emissions ought to be taken into account when distributing the costs of responding to climate change amongst currently living people is the epistemic state of past polluters at the time they caused the emissions. How is this relevant for the assessment of their actions, the assessment of the consequences of these actions, and for how, if at all, these actions or their consequences alter the duties of current agents, be they individuals or transgenerational entities?

Past people, one may plausibly claim, simply did not know that their emissions would cause harm to future generations, and it was only at a certain point in time that people could have reasonably been expected to know that their emissions contributed to causing long-term harm globally.⁴ If ignorance, and in the relevant cases reasonable ignorance, can act as an excusing condition, then past people cannot be held morally responsible for their emissions. And if this is the case, one may go on to argue that there is no original moral responsibility that currently living people can inherit from their predecessors (for an extended discussion of inherited moral responsibility, see Miller, 2007: 111–62), and so one might conclude that the highly unequal past emissions ought to be irrelevant when determining how to distribute emissions (or, more generally, the benefits and burdens of responding to climate change) amongst currently living people.

This is a plausible claim, and one held by quite a few of the contributors to the volume. As we have already seen, for example, Berkey rejects the idea that currently living people can be held responsible for past people's emissions. Karnein and Khan also argue that current agents cannot stand under duties of providing measures of compensation (on the basis of the BPP or PPP) for the consequences of actions that they both assess as wrongless owing to past

⁴ The precise point is a matter of dispute. One popular date, which Sarah Kenenhan, for example, uses on practical grounds, is 1990. But, as she also thinks, this is by no means necessarily the date that would be established after close analysis.

people's actual and excusable ignorance (while both hold that current agents stand under special obligations according to the APP or, this being Khan's explicit view, the APP as complementary to the PPP with respect to emissions since the date after which ignorance can no longer serve as excuse).⁵ Rudolf Schuessler too, as we will see, bases part of his argument on what he calls "one of the most important claims in climate ethics," namely, "that the citizens of industrialized countries were *inculpably* ignorant about the greenhouse effect or the impact of greenhouse gas emissions on the earth's atmosphere during most of the emission histories of their countries" (Schuessler, Chapter 7, 157).

Heyd, however, rejects the move from holding (a) that past emitters were not morally culpable for their high levels of emissions owing to their legitimate ignorance of the consequences of those emissions to holding (b) that this means that historical emissions are irrelevant to determining how to distribute emissions going forward. In terms of the principles introduced previously, he proposes an interpretation of the BPP that does not require showing that the benefits accrued were produced unjustly. His contention is that the past polluters' ignorance is irrelevant for the causal relation between past people's actions and the present conditions of their descendants' being normatively relevant: it is sufficient that the descendants have been highly unequally benefited for past people's emission-generating activities creating responsibilities for their descendants in the present. That the beneficiaries are unjustly enriched is the consequence of past people's having made highly unequal use of what in the meantime we have learned to be a limited resource. Further, use of this limited resource has so far been (and will for the foreseeable future be) crucial to people's realizing welfare. The issue of the predecessors' supposed or actual ignorance can be put aside. Those enriched by their predecessors' use of a limited global commons stand under duties to provide restitution to those who have not benefited similarly from the use of the resource. For Heyd, it is important that current agents' responsibilities are responsibilities of liability and restitution rather than of compensation, because as it is commonly understood, the attribution of compensatory duties would necessarily reflect a moral charge of someone having done something wrong (Heyd, Chapter 1).

Thompson also thinks that historical emissions are relevant, but she differs in a key respect from Heyd: she argues that historical emissions were wrongful in a certain sense, namely, from a time-neutral perspective and, thus, that the

⁵ Khan points out that even a generous determination of the date after which ignorance can no longer serve as excuse, namely, 1990, will attribute high proportional historical responsibility to the OECD countries of Europe (and the corresponding duties according to the PPP): "Moving the baseline year by a few decades does not dramatically shift levels of historical responsibility. For example, shifting the first year of counting emissions all the way from 1890 to 1990 decreases the contribution of OECD Europe from 14 to 11 per cent of the world total" (Khan, Chapter 10, 237). We will discuss this point later.