

# Climate Change and Energy Transitions

Term paper: Climate Change and Cultural Change

Wester, T.I.

Autumn 2023

## 1 Introduction

According to almost every modern scientific account on the matter, climate change is one the most profound, complicated, and important issues humanity has ever had to deal with. Our societies will change as we adapt to the changing environment, and our mitigation efforts will likewise have profound social impacts.

The matters of adaption and mitigation are frequently discussed in normative-, and political- discourse, though not every aspect receives equal attention. The impacts climate change has on culture are, for instance, not often discussed. Despite this lack of attention, the cultural dimension of climate change is not one which can be left ignored. Culture, after all, though not as essential as sustenance and shelter, is seen by many as an important aspect of the human condition.

This paper will address some of the normative aspects of cultural -loss and -change related to climate change. Particularly, I will focus on Heyward's account of cultural loss. I will expand Hayward's theory and use it to argue that we have a duty for cultural malleability. This paper will first address some of the terminology and assumptions both Heyward and I use at the base of our respective beliefs. Having established this background, I will provide an overview of Heyward's perspective on the cultural losses experienced by cultural groups as they adapt to climate change. While her account sheds light on very important aspects of culture in regards to climate change, it is not without its faults. Said faults and shortcomings will be explored in the section following. I will then outline my perspective,

which aims to rectify these shortcomings by expanding Heyward's theory. The next section will apply these ideas to argue that we have a moral duty to be malleable in our cultural values and practices.

## 2 Terminology and Background

First in terms of terminology is the concept of culture. Giving an exact definition of culture is well outside the scope of this paper, and it is furthermore not exactly helpful to adhere to one specific notion of culture, as this would limit the applicability of the arguments presented in this paper. I will however follow Heyward in her general idea of what culture is, that being: a set of values, practices, beliefs, and/or traditions shaped and transferred through the environment which we find ourselves in. This includes both physical environments such as landscapes and social environments such as religion.

I will also be talking of cultural- values, practices, and identities. These are tightly bound to culture in such a manner that changes in culture change these aspects, and changes in these aspects change the culture. Lastly on the cultural definitions are cultural loss and cultural damage. Cultural loss will refer to the complete disappearance of certain cultural aspects, most notably: identity. Whereas cultural damage refers more to detrimental change in the aspects of culture.

Lastly, much of this paper will speak about high-emission-, versus low-emission-nations. These statements are specifically about emissions of greenhouse gasses, but can mostly be extended to refer to environmental impact at large. I will also speak of high-emission cultures and low-emission cultures. These are not concepts in themselves, but rather simple shorthand for "cultures present and prevalent in high-emission nations (or low-emission nations respectively)".

## 3 Heyward

Heyward's aptly named paper "Climate Change as Cultural Injustice" (Heyward 2014), discusses some of the ramifications of the changing environment, particularly on indigenous cultures.

Climate change can have broad ranging effects on environments and

ecosystems. Flooding may cause the loss of certain landmasses, particularly islands, while droughts may result in the loss of marshes, forests, rivers, lakes, and agricultural land. These losses may result in the migration or extinction of various animal species, thus further diminishing the ability for natural environments to remain stable. These ideas are rather common in general climate change literature, and are themselves not Hayward's focus. Instead, she focuses on linking of these issues to cultural practices.

Certain geographical features, such as the aforementioned rivers, forests, etcetera, may hold a special cultural or religious significance. Hayward is quick to point out that indigenous cultures usually feel a strong connection to their ancestral lands, thus making changes in those environments quite profound culturally speaking (Heyward 2014, p. 152). The loss of certain animals and plants which are traditionally part of one's culinary culture is another aspect which Hayward claims to be felt more strongly by indigenous peoples (Heyward 2014, p. 155). The effects on indigenous people are so great because these cultures tend to value historical continuity and tradition highly.

Such changes are however not exclusively caused by anthropocentric climate change. Many cultures around the world have faced natural disasters, migrations, ice ages, and heat waves. Of course, climate change makes such damaging episodes much more common, though Hayward claims another aspect to be much more culturally significant. The fact that there are moral actors to blame for the cultural changes undergone by – for instance – indigenous groups, changes both the normative, and cultural dimensions of the issue.

Heyward argues that a culture can change or abandon its practices, locations, members, and so forth, willingly and not experience cultural loss, even if the members of the culture come to regret these changes (Heyward 2014, p. 153). Likewise, natural changes in the environment are damaging to cultures, though they do not result in cultural loss. When changes are enforced by an outside actor however, they threaten cultural identity, and result in cultural loss (Heyward 2014, p. 153). In this particular case, high-emitting nations are forcing indigenous-, and other low-emitting- communities to change their cultural practices. normatively speaking, this is an injustice on behalf of the high-emitting nation.

## 4 The shortcomings of Heyward's account

While Heyward's account is powerful in adding both a cultural and normative dimension to the issue of climate change, her account is not without problems. Firstly, Heyward only addresses cultural change on the part of low-emitting nations, particularly indigenous groups. The cases she uses to illustrate hard point are very clearly forms of injustice, though a case can certainly be made that high-emitting nations will also experience profound cultural losses in trying to adapt to the new climate. According to Heyward, these are not cases of cultural injustice, as they are not externally enforced. There are several reasons one might disagree with this view. We may for instance hold it possible to commit immoral actions against oneself, or at least for a select group of people to commit injustices against the culture they are apart of. One may furthermore raise intergenerational concerns. After all, looking backwards, it might seem as though changes brought by those in the past are externally enforced, even if these changes came from previous members of the same culture. One may also give an account of the external enforcing actor demanding cultural change in high-emission nations.

Furthermore, since Heyward is only concerned with low-emitting nations, her focus is entirely on challenges of adaption, not of mitigation. Indigenous-, and low-emitting- cultures already live in a sustainable manner, therefore not requiring any changes to mitigate climate change. High-emitting nations on the other hand do need to make prolific changes to their practices if they wish to advert a climate catastrophe. Whether such changes lead to cultural losses is brought up briefly by Heyward (Heyward 2014, p. 162), though a more thorough discussion is warranted.

## 5 Mitigation and culture

There seems thus to be a need to account for the cultural changes and losses which may result from mitigating climate change. One can imagine that, in our need to reduce greenhouse gas emissions, our collective ability to engage in certain cultural activities changes. Heyward already mentioned one such concern, that being the cultural practices and identities surrounding automotive transport (Heyward 2014, p. 162). Likewise, voices are emerging calling for a culinary shift towards plant-based diets as a more sustainable

alternative to many animal products. This paper will not give a full account of all potential cultural impacts of climate change mitigation, nor will it delve deeply into the empirical aspects of such an investigation. The reason being that the exact details of cultural practices do not matter for my general point. It may turn out to be the case that automotive culture is strengthened by the emergence of electronic vehicles. It may likewise turn out to be the case that veganism is actual more harmful to the environment than a diet including animal products. The general point I will be addressing is that climate change emerged out of certain cultural values, practices, and identities – thus raising questions about the moral duty to reform these aspects of culture to prevent future crises.

Let us start then with this claim; that climate change is a result of cultural values, practices, and identities. I believe the best method of approaching this matter is by looking at the cause of anthropocentric climate change itself. The Industrial revolution is widely regarded as the prime instantiator of anthropocentric climate change (Bernstein, Bosch, et al. 2008). Indeed, much of the greenhouse-gas literature speaks of current levels as compared to “pre-industrial times” (Bernstein, Bosch, et al. 2008). Furthermore, the industrial revolution is widely regarded to have significantly increased the well-being of humanity at large<sup>1</sup>. In short, the industrial revolution – or rather, its modern-day continuation – is closely linked with climate change, and highly valued due to the benefits brought on by it.

One thing which is important to note is the continuity of the industrial revolution. Industrialisation well past the singular revolutionary event that set it in motion. This continuation indicates at the very least that we value the benefits provided by industrial societies. I will assume – for the purposes of this paper – that the current level of well-being is compatible with mitigation efforts.<sup>2</sup>

Aside from the basic needs such as food and shelter, there are other values that prevent large-scale mitigation efforts. Fossil-fuel based power

---

<sup>1</sup>There are of course detractors from this position. Notable voices include the Luddite movement (Manuel 1938) and modern versions of it (Подольский 2018), as well as general anti-modernists such as Kaczynski (Kaczynski 1995), but these are definitely minority positions.

<sup>2</sup>This assumption is not entirely uncontroversial. There are those who believe a reversal of industrialisation to be necessary. For instance the aforementioned Kaczynski (Kaczynski 1995) as well as normative- degrowth thinkers (Victor 2012).

remains the cheapest available form of electricity, and we<sup>3</sup> value cheap goods. We value the freedom brought on by automotive-, and aerospace-travel. We value luxury in our culinary choices particularly in animal products and crops which require much in the form of land-use and irrigation. These are the specific practices which I believe we have a duty to reform. These practices are tied to cultural values, such as freedom and tradition. Furthermore, the practices and values may also constitute a significant part of a given cultural identity. Changing them would thus be tantamount to changing the culture entire, which would be a clear example of cultural loss.

Return to Heyward's account then, we have two cases of cultural loss, those of low-emitting nations in adapting to climate change, and those of high-emitting nations in mitigating it. Assuming for a brief moment that we must either entirely adapt or entirely mitigate, the difficulty becomes clear. One cannot ask either culture to sacrifice itself so that the other can continue in its practices. It is of course possible to claim that, since the high-emitting nations are the source of the problem, it is indeed fair to demand their sacrifice for the well-being of low-emission cultures. However, following Heyward's account, enforcing a change like this externally constitutes a cultural injustice. If we then demand the sacrifice of the entire cultural identity, this would be a great injustice indeed.

What then have we gained by extending Heyward's theory with the mitigation account? Most experts on the topic of climate change would agree that we cannot entirely negate or reverse climate change. In other words, we will need to combine mitigation with adaptation (Bernstein, Bosch, et al. 2008). With the mitigation account, we can weigh the cultural impacts of both mitigation and adaptation against each other as two forms of cultural injustice. The result is that one cannot claim a duty on the behalf of either low-, or high-emitting nations to fully accommodate the other. This opens the door to a more nuanced perspective on cultural change relative to climate considerations.

## 6 Adaptation and culture

Thus far, I have spoken of low-emitting nations as bearing the cultural burden of adaptation, and high-emitting nations as bearing the burden of mit-

---

<sup>3</sup>The "we" here refers to the members of cultures generally present in high-emitting nations.

igation. However, viewing things merely in this way is limiting. While I do believe these considerations to be the major ones at present, high-emitting nations also face cultural burden of adaption, though in a different manner to the cultures mentioned by Heyward.

Earlier, I mentioned culinary culture, and the value high-emitting cultures tend to place on freedom of choice and luxury. I addressed these values as being threatened by mitigation efforts, though they are also threatened by climate change directly. As the earth heats up we face threats of desertification, the acidity of soil and water is increased by carbon dioxide, and losses in biodiversity have many effects, notably a higher-susceptibility to disease<sup>4</sup>. All of these effects will lead to a reduction in freedom of choice, as certain culinary items will simply become impossible to procure. Luxury items will likely be the most susceptible, as a great indicator of luxury is difficulty in procurement<sup>5</sup>.

One major difference between cultural impacts of adaptation between high- and low- emission cultures however lies in the ability to deal with cultural threats. Heyward mentions island nations such as the atoll state of Kiribati as among the earliest nations that may need to emigrate completely due to rising sea levels (Heyward 2014, p. 156). Compare this to a country such as The Netherlands, a high-emitting-, and wealthy- country with several provinces under serious threat from rising sea levels<sup>6</sup>. The Netherlands has the wealth and expertise to adapt to rising sea levels using natural defences such as dunes, and engineered dykes, seawalls, sluices, and pumping systems. In other words, The Netherlands can adapt to rising sea levels in a way that Kiribati can not.

Furthermore, as mentioned earlier, indigenous cultures are often much more tied to the land which they inhabit, as well as traditional ways of life, and culinary history. Nations such as The Netherlands would – according to Heyward – experience fewer cultural damages even if they had to emigrate en-masse. Whether this holds true as an axiom of culture is not a discussion within the scope of this paper, but at the very least, one can make an

---

<sup>4</sup>An example is the great Irish famine, where a lack of genetic diversity in the potato population, made the entire supply susceptible to a particular strain of blight.

<sup>5</sup>We already face problems in the procurement of certain luxury products such as vanilla and coffee, both of which are plants highly sensitive to the environment for their cultivation and flavour (coffee)

<sup>6</sup>More than one quarter of Dutch land is below sea level, with 50% of the entire country being no more than one meter above (usgs)

argument about the historical continuity of indigenous traditions.

Indigenous communities often have rich cultural practices which can be traced back for centuries. The same cannot be said for many industrialized societies. Many cultural practices in industrialised nations have only emerged relatively recently, therefore lacking the heritage aspect present in indigenous cultures. It certainly seems that more novel practices generally have a reduced cultural impact, but I think a case can be made that this effect becomes less significant over time. If everyone currently alive knows no time before a given practice was established, then it seems to me that such a practice is quite prolific amongst a population. At that point, another generation, or another century, makes little to no difference to the bond between members of the culture and the practice in question. The point stands however that cultures in low-emission nations tend to have traditions which reach back further. As I am not a member of such a culture, I feel I am in no position to judge whether another few centuries makes a significant difference to cultural attachment.

## 7 The moral duty for cultural malleability

I will now be discussing the central claim of this paper: that we have a moral duty for cultural malleability. To defend this claim I will be using everything discussed in the preceding chapters: that all nations will incur cultural damages in adapting to climate change, that high-emission cultures will incur cultural damages in mitigating climate change, and that externally enforced cultural change is unjust.

### 7.1 Duty from high-emission to low-emission

I will start with the most straightforward account covering the duty of high-emission nations for cultural malleability. I will keep the argumentation rather brief, as I will largely be following Heyward in this matter.

Heyward argues – in my opinion successfully – that high-emission cultures are forcing low-emission-cultures to change their ways through the medium of climate change. I argue above that these practices are occasionally cultural, or bound to cultural values and identities. As such, cultural practices from high-emission cultures are committing injustices against low-emission cultures.



Thus, we have a duty to change our practices, though I do not believe this to be enough. After all, the damaging practices in question emerged from certain values, such as commercial freedom, luxury, affordability, economic growth, and so forth. If these values remain fixed, the issue of cultural injustice will reappear time and again. In fact, we already see how the valuing of affordability leads to poor working conditions and forced labour in less developed countries. The desire for luxury worked strongly against the abolitionist movement in The United States (Morgan 2016). And the desire for economic growth had lead to damaging lobbying by various industries (Brandt 2012).

To bring lasting change therefore, industrial nations would need to re-think their values, in order to avoid future unjust practices. But we cannot just adjust our values to meet the needs of the present either, this too would lead to problems in the future. Instead, high-emission nations must always adopt their values to meet the needs of the present and future. This continuous process will be a profound driver of cultural change.

## 8 Duty from low-emission to high-emission

I believe the claim in the section above to be true, though it is nevertheless problematic. If high-emitting nations must continuously change their cultural values to avoid committing injustices against low-emission nations, then how will they not experience cultural loss themselves? Will it not be observed by such cultures as if they are forced to change by others who are unwilling to do so? Even if we follow Heyward's argument that high-emitting nations must bear the burden, because they are the driving force behind climate change, the point still stands that such a one-sided bearing of the burden will likely eradicate certain cultures entirely, which I do not believe can be seen as a just course of action.

I would suggest therefore that low-emission nations also have a duty to change their cultural practices and values. If low-emission cultures refuse to change their practices, they force high-emission nations either to take much more drastic mitigating actions, or to commit injustices against low-emission cultures. Both of these are unjust courses of action, thus requiring low-emission cultures to change their cultural practices. Once again, these practices are bound by values – in this case values like tradition, historical continuity, and geographical attachment. Therefore, if low-emission

cultures only change their practices, the root issue will not be resolved, a shift in values must be observed as well.

What must be kept in mind however is Heyward point that changes in culture tend to be more detrimental to low-emission cultures compared to high-emission cultures. A fair approach is, in my opinion, one where the cultural losses for all involved groups are minimized. As such, the fair approach will involve greater cultural changes on behalf of high-emission cultures, which are better able to bear change without losing cultural identity. I think a point can also be made that the greater losses ought to go to the high-emission nations, as they brought about the problem to begin with. There must however be a limit to such a discount for low-emission cultures, as the complete loss of high-emission cultures appears to me a greater injustice than injustices committed through climate change.

## 8.1 Further relations

Aside from the relationships mentioned above, there are of course also cultural obligations of high-emission cultures to other high-emission cultures, and likewise of low-emission cultures amongst themselves. These are not unimportant, but there is nothing novel in these cases which I have not already stated. Thus briefly: If a particular culture refuses to adapt, it may force other cultures to adapt more heavily (for example because there is now a reduced supply of a particular material needed for a given cultural practice), leading to cultural losses and therefore to injustice. If a high-emission culture refuses to take mitigating action, they force other high-emission cultures to mitigate more, thereby incurring more cultural damages.

## 8.2 Duty of cultures to themselves

In the accounts above there is one problem which keeps appearing, that being that constant change to practices and values may also lead to cultural loss. It seems to me that members of a culture have a duty (or at least a right) to protect their cultural identity. This does not mean that there is a duty to conserve cultures as they are, but rather to ensure that the change a culture experiences are inkeeping with the cultural identity. In this I follow Heyward in believing that stable cultural identities are essential to the well-being of a person and their ability to interact with the world

(Heyward 2014, p. 152). A loss of cultural identity is serious crippling to a person, so much so that they have a duty to protect it, in as much as they have any duty towards themselves at all<sup>7</sup>.

Thus, cultures have a duty to change for the sake of not committing injustices against other cultures, and for the sake of retribution for past injustices. Cultures furthermore have a duty to themselves to prevent the loss of cultural identity. It may seem as though these matters are diametrically opposed, but this is not the case. Take the case of low-emission cultures. These cultures have – as I argue above – a duty to adapt to climate change; in doing so, they will incur some cultural losses. However, if these cultures do not adapt, they will likely go extinct entirely through detrimental climate change.

A culture which cannot change, will ultimately be lost. This matter is more apparent with the looming threat of climate change, but is one I believe to be a general axiom of cultures. The environments which we find ourselves in are constantly changing. We can either adapt or die, this holds for organisms as much as for cultures. Likewise, a culture which changes too much will ultimately be lost, though this is more a slow decline or metamorphosis rather than a sudden death. As such, I only see one way forward in which we can maintain our cultural identities, especially in light of climate change. We must value cultural malleability as one of the core fundaments of our respective cultural identities. This way, we can survive the changes in our environments and the respective necessary changes in our cultures themselves.

I have to once more state however, that such a fundamental value cannot just be inserted into any culture without risking cultural damage. Especially low-emission cultures which tend to value tradition and historical continuity highly. The duty therefore falls first and foremost on the high-emission nations to adopt a malleable mindset. More tradition oriented nations will have to slowly adapt this value out of their duty to themselves and others.

---

<sup>7</sup>I want to be clear that this duty-to-the-self is not something Heyward talks about. I follow her only in the idea that cultural identity is essential to human well-being.

## 9 Conclusion

In conclusion: All cultures have duties to one another and to themselves. One such duty is to adapt to climate change. High-emission nations in particular have a further duty to mitigate climate change. In both cases, cultural damage is a consideration for said duties, but it does not excuse a culture from acting.

Adapting to-, and mitigating- climate change will require a change in cultural practices. A change in cultural values is needed if we wish to address the matter of cultural injustice more generally. These changes must furthermore be continuously applied in order to defend against future injustices. It will be difficult for a culture to maintain its identity in light of this constant change. As such, cultures will have to adopt ‘malleability’ as a core value of their systems. Certain cultures will be able to adopt this value more easily than others, though each must do so in its own time if it wishes to fulfill its duties to itself as well as its duties to other cultures.

## References

- Bernstein, Lenny, Peter Bosch, Osvaldo Canziani, Zhenlin Chen, Renate Christ, and K Riahi (2008), IPCC, 2007: climate change 2007: synthesis report.
- Brandt, Allan M (2012), “Inventing conflicts of interest: a history of tobacco industry tactics,” *American journal of public health*, 102, 1, pp. 63-71.
- Heyward, Clare (2014), “Climate change as cultural injustice,” *New waves in global justice*, pp. 149-169.
- Kaczynski, Theodore John (1995), *Industrial society and its future*.
- Manuel, Frank E (1938), “The luddite movement in France,” *The Journal of Modern History*, 10, 2, pp. 180-211.
- Morgan, William A (2016), “The internal economy of Cuban tobacco slavery,” *Slavery & Abolition*, 37, 2, pp. 284-306.
- Victor, Peter A (2012), “Growth, degrowth and climate change: A scenario analysis,” *Ecological economics*, 84, pp. 206-212.
- Подольский, Вадим Андреевич (2018), “Анализ различий между традиционализмом и консерватизмом на примере луддитского движения,” *Социум и власть*, 4 (72), pp. 28-40.