

Climate Change: Causes, Consequences and the Collective

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There is an extensive amount of scientific research identifying climate change as an urgent issue caused by human activity, certainly at least to the magnitude that we are facing today (Cripps 2011, Hansen, Sato et al. 2008, Stern 2006, International Institute for Sustainable Development 2020, Greaker, Stoknes et al. 2012, Dietz, Hepburn et al. 2007). It is also clear that the impacts of today's emissions and past emissions are long-term, lasting for centuries (Dietz, Hepburn et al. 2007).

It is recognised that climate change is an issue which spans across past, present and future generations. The consideration of current activity affecting future populations was first found in the widely used definition of sustainable development, from the Brundtland Report Our Common Future (1987).

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (International Institute for Sustainable Development, 2020)

Climate scientists have confirmed that limiting the rise of average global temperatures to less than 2oC is likely to stabilise the looming threat of climate change trends (COMEST 2010). The magnitude of the global climate change threat for future generations requires urgent action (Cripps 2011). Raising the questions of 'what'; what can be done, 'how' mitigation can be achieved, by whom; and 'why' concerning ethical perspectives and psychological considerations of human behaviour. A prominent debate surrounding the issue of climate change has left many academics and policymakers examining the burden, the benefits, and those that should be accountable for the cause, and responsible for change (Hayward 2012, Dietz, Hepburn et al. 2007).

The ethics of climate change broadly considers two notions; causes and consequences (Hayward 2012, Stern 2006, Dietz, Hepburn et al. 2007) and mitigation and adaptation (Cerutti 2016, Caney 2005). In this paper, similarly we will look at two broad notions of 'why' and 'how'. 'Why' the human population are not critically mitigating the causes of climate change

and ‘how’ can the human population resolve the climatic issues we are facing and set to continue facing for generations to come, examining who is responsible and how those accountable can bring out the necessary changes. This paper will draw upon philosophical theories and ethical frameworks to consider the human moral obligation towards the environmental future of our planet in response to Abraham Lincoln’s assertion that:

“You cannot escape the responsibility of tomorrow by evading it today.”

Having now identified that climate change and the necessary sustainable development both rely on a scale of time - specifically, present day causes for future consequences. The author suggests a fair assumption is made that there is a level of knowledge, on a global scale, of both the effects and causes of greenhouse gas emissions, as well as the necessary changes that must occur in order to limit their consequences (Beckman, 2012). With this assumption understood, let us now question why there is not enough being done to mitigate the catastrophic effects of climate change. *Why are we evading our responsibilities? Do we not believe it is our responsibility? Do we value the planet we are leaving behind? How tangible is the notion of a future planet, and future generations?*

“Near-continuity is emotionally more important than remote time.”

(Lynch cited in DeSilvey 2012)

I. The Why

Caney (2005) asks the question of duty; are we duty-bound to adapt our lifestyles to make sacrifices for the future of generations to come? Broome (2012) suggests the human population is governed by two responses in the context of climate change: duties of justice and duties of goodness. This concept introduces the question of morality. Broome (2012) explains that morality requires individuals to improve the world using an example of dropping litter - most people know to pick up litter that has been dropped (although the author would interject that this is a cultural assumption). Within literature there is huge debate around moral duties of goodness and justice (Mulvaney 2015), with many questioning what is goodness, what is justice and how to view climate ethics from this perspective. Mulvaney (2015) suggests morality of climate change should be based on justice, not simply on a duty of goodness, because the harmful act of emitting greenhouse gases by generation X, is an unjust behaviour

to generation Y. This paper does not have the scope to include this argument in detail. However, on the premise that we are morally wired to improve the world rather than make it worse, we consider why, then, is the population not immediately seeking the changes necessary to mitigate the causes of a warming planet.

Jamieson (2010) offers a lack of identity as a possible explanation as to why individuals may not be morally connected to the issue of climate change. Is the scope of time - the consideration of a future planet with future generations - too intangible to identify with? Schrader (2012) describes an individual's interest in a subject that acts as the 'fundamental connection' which allows humans to deeply understand a matter of change. Schrader (2012) uses an example of a parent's interest in understanding an infant's distress, or a farmer's invested interest in understanding how best to care for his animals and crops. Is it therefore a matter of knowledge (or lack thereof)? Many would argue that we do, for the first time, have enough scientific knowledge to facilitate proactive climate change policies. Whilst there may be vast amounts of information available from web searches and national newspapers (Arnold, Bustos 2007) many of it contains conflicting messages with often dramatised facts. This may go some way to explain the lack of human connection to the issue. One solution could therefore be concluded that an individual's interest and connection to the identity of climate issues must first be recognised. Schrader (2012) suggests education and knowledge remain a fundamental resource to aid this resolution.

Cerutti (2016) argues that ethical studies of climate change ignore one fundamental problem of motivation. If we can understand the fundamental drivers and conditions that motivate people to take better care of the planet, we will advance public recognition of the issue of climate change.

Whether the answer lays with the aforementioned possibilities, there could be a case that human morality is too complex with many socio-cultural differences and conflicting interests to be relied upon to face the magnitude of climate change (Dietz, Hepburn et al. 2007). Thus, we turn to questions of law, regulation and governance.

Adopting Kantian ethics could offer a useful approach when considering a human's duty to the planet. Kant suggests it is through the concept of duty that one rationally considers what is morally right or wrong, rather than the consequence of an action (Greaker, Stoknes et al. 2012).

The duties Kant prescribes are rooted in the categorical imperative rule. Kant developed three versions of the categorical imperative, the first and the most commonly known states: “act on a maxim only if it can be universalised’. Kant argues that this shared rationale allows all individuals to conclude the same reasoning for what is morally right or wrong. Thus, the categorical imperative prescribes our moral obligations and duties (Ohreen, Petry 2012). This approach within climate change would ensure everyone acted accordingly to a universal law (Greaker, Stoknes et al. 2012). Mulia, Behura et al. (2018) state universalising environmental laws would ensure that any destruction to the environment was unacceptable, using the example of greenhouse gas emissions, limiting usage only to the amount which the environment can withstand. Similarly, introducing a maxim which prohibited the cutting of trees may go some way to improve deforestation.

The main objection to Kant’s categorical imperative is that the underlying realism that it implies does not allow for exceptions, with no consideration for cultural and religious views (Greaker et al. 2012). This is problematic when considering the ethical perspectives of climate change, which is a necessity in analysing a climate change policy (Dietz et al 2008). For example, when looking at UN members there are concerns of poverty and wealth disparity, as well as varying levels of greenhouse gas emissions, intergenerationally, across developed and developing economies.

Hume (cited in Christians 2017) introduces the idea of philosophical relativism rather than Kant’s ethics of rationalism. This philosophical framework depicts humans only act on what they experience directly. Opposing Kant’s rationalised ethics by stating; humans act on desires, therefore emotions, rather than moral principles. Hume (cited in Christians 2017) concludes human morals are guided by emotion rather than rational thought, which ‘produce or prevent actions based on passions [rather than reason]’. “The rules of morality are not conclusions of our reason” (Hume cited in Christians 2017). This notion goes some way to determining the need for human interest and emotional identity when reviewing the drivers and conditions of motivations to address environmental change.

II. The How

The author has highlighted in section I first, an urgent need to address climate change and secondly, the moral and philosophical mechanisms which may be preventing individuals from

connecting with the pressing threat of climate change. Within this second part of the paper the author seeks to address “who has a responsibility to do what”, and how (Hayward, 2012).

Many academics believe the issue of climate change requires us to examine the burdens and benefits on an intergenerational and universal scale (Caney 2005). Dietz, Hepburn et al. (2007) explain that an analysis of climate change by its very nature demands the consideration of a number of conflicting interests and ethical perspectives. The complexities of this debate are intricately entwined with burden and blame distributed among overdeveloped countries, negligent governments and spanning many generations (Dietz, Hepburn et al. 2007). Among this debate is the ‘polluter vs beneficiary pays’ principle. These principles review those who have emitted more greenhouse gases compensating those that have not, identifying rich (industrialised) countries as the main ‘emitters’ (Broome 2012, Caney 2005, Hayward 2012, Stern 2006, Dietz, Hepburn et al. 2007), and developing or poorer countries being those most likely to be affected by climate change - ‘geographically and economically vulnerable regions’ – are likely to be the worst affected (Stern 2006, Dietz, Hepburn et al. 2007).

Take the example of Tuvalu, as Broome (2012) mentions in *Climate Matters*. Tuvalu is a group of small Islands in the Pacific, with a population of 11,000. The highest point on the island is 4.5 metres above sea level. The Tuvaluans live a way of life that would have contributed “virtually nothing” to climate change, yet the threat of rising sea levels suggest these islands will be inhabitable within a few decades. This is a perfect example of the ethical implication’s decision-makers face in the context of climate change.

The Tuvaluan example is certainly a tragic and real example of the impacts of climate change. Nonetheless, the notion of holding previous generations responsible for their emissions is often objected on the grounds that previous generations did not know the causes or effects of their human activity (Beckman 2012). Therefore, this argument of burden and responsibility across an intergenerational dimension becomes morally irrelevant (Caney 2005). With the case of morality, now that we as a generation are educated about the causes and impacts of greenhouse gas emissions, we become morally connected to the outcome. The harm we cause can no longer be claimed as unintentional.

For the purpose of this paper, we will discuss entities in the present, reviewing the allocation of responsibilities between individuals, businesses and nations (governments) (Hayward 2012), who is accountable (for change rather than cause), and whom is the most influential for change.

II.i Individuals

In understanding the causes of climate change it may be easy to observe that an individual's actions are consequently the cause of considerable greenhouse gas emissions. It is the nature of consumerist values, that are the likely result of the substantial use of fossil fuels (Beckman 2012). Subsequently individuals do indeed have a responsibility to reduce emissions (Broome 2012). In contrast, the author questions whether an individual should be held accountable for their choices when they are made in a culture of consumption?

Arnold, Bustos 2007(2007) note that it is unreasonable to assume that individuals (as consumers) have an accurate understanding of both the causes of climate change and their role within the cause. There is also the concern that if one individual chooses to do the right thing, how may their ethical obligations be affected by those that choose not to comply. This could lead to an unfair demand on the ethically conscious. Moreover, the actions of the ethically conscious could further incentivise the unwilling to be even less responsible (Hayward, 2012).

Academics suggest that whilst every individuals' private actions do of course have an impact to the causes of climate change, each individual's emission as an independent entity are too small to make a notable difference. It is individuals as a collective group that are responsible in reducing the effects of climate change (Beckman 2012, Cripps 2011). Cerutti (2016) declares that addressing the issue of climate change from a perspective of individual morality does not "respect the specific nature of the issue".

II.ii Business

If it is a reasonable assumption that consumers lack an understanding of the true causes of climate change and the harm their actions will cause, is it therefore a reasonable assumption that the corporations that provide the goods and services should be accountable?

It is likely that large corporations will have a much greater awareness of the harmful effects of their operations (Mulia, Behura et al. 2018, Arnold, Bustos 2007) than consumers. Businesses

are also in a greater position to make significant change. Caney (2005) advocates the likelihood that corporations are the primary cause of the extensive level of greenhouse gas emissions. Given the amount of deforestation and use of fossil fuels that corporations are responsible for, it is difficult to object this point. Although this does lead one to consider if organisations are at the mercy of demanding consumers - or, perhaps, even that the organisations are merely products of the globalised socio-economic order.

Organisations should voluntarily look to adapt their operations not only for their moral duty towards the environment and future generations, but also to ensure their own success can be sustainable in an evolving world. However, it seems unlikely that organisations will make such drastic, expensive change on their own accord. A consideration must be made with regards to the economies of scale of the current globalised market, the cost inflation that is likely to occur, and the risk to an organisation's competitive positioning. This problem then becomes greater than corporations themselves, as policies and regulations must be implemented to ensure the necessary industrial and economic systemic changes occurs (Arnold, Bustos 2007).

II.iii Nations/State Governments

It is widely recognised in literature that nations are the main bearers responsible for climate change (Beckman 2012, Hayward 2012) with international agreement that nations must be held accountable to reduce their carbon emissions (Caney 2005, Hayward 2012). This is proven by a number of policies and agreements that have been implemented on the global stage; The Kyoto Protocol, Paris Agreement, Intergovernmental Panel on Climate Change (IPCC), the United Nations Environmental Programme (UNEP) and the most recent and arguably the most impactful is the United Nations 12 Sustainable Development Goals (SDG's) with a focus on a better world with less poverty, gender equality, and fewer environmental problems (Mulia, Behura et al. 2018, Arnold, Bustos 2007, Hayward 2012, Stern 2006). A key concern with these policies remains that a nation's commitment is voluntary with a "focus too much on what we can do, with too little emphasis on what we must and should do" (Mulia, Behura et al. 2018).

There is debate around the unequal burden of responsibilities of nations, with differences noted in both the volume of greenhouse gas emissions and also in a country's ability to cope with the effects and impacts of climate change (Mulvaney 2015, Beckman 2012, Hayward 2012, Dietz, Hepburn et al. 2007). Beckman (2012) notes that there "is frequent contention that rich

countries must shoulder the greatest share of responsibilities”. The author suggests much of the academic literature is over-intellectualising this discussion. Certainly, nations have a responsibility. This does not however mean they must all be equal in their mitigation and adaptation techniques (Hayward 2012, Stern 2006). Each nation may well have different levels of greenhouse gas emissions, thus surely meaning there will be smaller and larger targets for each given country dependent on emissions, and responsibility should reflect this. Equally this does not need to detract from universal targets and would still permit richer countries or those with higher emissions to make more drastic and costly changes.

Climate change is global in its cause and consequences, and thus requires a universal approach to mitigate the impact on future generations (Dietz, Hepburn et al. 2007). This problem is bigger than geopolitics and it is with this mindset that leaders must look to make change. Cerutti (2016) identifies the need for a political strategy introducing a ‘mitigation and adaptation policy’ which considers a change in mentality and favours alliances. Greker, Stoknes et al. (2012) agree further adding that a single country alone is likely to small to make a notable difference. Effective action to mitigate the causes of climate change must be global, and collaborative (Stern 2006, Dietz, Hepburn et al. 2007). *We* individuals, nations, and businesses as a whole entity rather than single communities are collectively responsible to reduce the effects of climate change to protect present generations, as well as future generations (Cerutti 2016, Cripps 2011, COMEST 2010). The author suggests that it is the ties in between individuals, governments, and businesses – NGOs, markets, research, media - and the politics that bind them, where the greatest power to connect individual entities is to be found.

There is a need for politics to reform and reconnect with morality to provide us with ‘the how’; how we can adapt to change and mitigate causes to “act in favour of future generations” but also ‘the why’; to motivate and stimulate, and probably incentivise, us as a collective entity, and to do so with international law from a global collaborative leadership (Cerutti 2016).

III. Considerations and the Collective

Within the discourse of climate change many academics discuss the need for a ‘cultural revolution’, reforming and restructuring economies, moving away from the consumer ‘capitalist’ culture (which is a significant burden on earths fossil fuels) towards a more social and sustainable society (Cerutti 2016, Brenner 2018, Arias-Maldonado 2013). This paper has

so far addressed the issue of climate change and the ethical considerations as a purely human problem. It is perhaps exactly that lesson which needs to be addressed. We live on a human-dominated planet, or so we think, which the author suggests is the exact reason why we now face such dramatic climatic consequences (Jamieson 2010). A solution proposed by many academics is a change in societal values, with a “green vision” Hayward (2012), one that recognises the connection and inter-dependency of humans and nature. Many academics hold that in order to address the magnitude of climate change problems, there needs to be respect for and reconnection to nature from the human population (Brenner 2018, Gare 2010, Jamieson 2010). Brenner (2018), for example, recognises that the relationship between human and non-human domains will provide better strategies to influence society to be more environmentally responsible.

Ultimately, if we are concerning ourselves with a current problem, of which the consequences will be suffered in the realm of unknown futures, then perhaps a radical rethinking of our conception of time is required. Following Bruno Latour (cited in Matless 2017), and his provocation of a world in which “time does not flow from the present to the future – as if we had to choose between scenarios, hoping for the best – but as if time flowed from what is coming...to the present,” we are provided with a potential starting point. If the scale of time, within the context of climate change, could be redescribed as an issue that is coming towards us, encroaching on us, coming round the corner, drawing down upon us, then the responsibility of tomorrow would be truly inescapable.

III. References

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