

Chapter 1

Introduction and Lessons Learned



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Abstract This chapter introduces the theme of the book and gives an overview of the lessons learned from the individual chapters.

1.1 Introduction

There is broad support for dealing with climate change. There is consensus among scientists, support among the population and international agreements have been concluded on a sharp reduction in emissions. However, there is still a long way to go, in which the way in which policy is implemented, the technical possibilities and affordability are constantly under discussion. An additional problem is the polarisation in the public debate, a sharpening of positions which generates media attention but makes it increasingly difficult to find the right middle ground.

For an effective and efficient transition towards a circular economy – a policy ‘from the middle’ – three questions will need to be answered. First, how do extreme opinions about climate change arise and how can we deal with them? Second, how do we balance the need for freedom and responsibility with the required level of coordination? Third, how can climate policy build on the existing norms and values in society? These questions form the starting point for the contributions in this volume.

For the purpose of this introductory chapter I describe the lessons from the contributions that have a bearing on the three questions above (polarisation, shared responsibility and morality). In doing so, I take some freedom of interpretation. Readers are encouraged to read the contributions themselves to draw their own conclusions.

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1.2 Dealing with Polarised Positions on Climate Change

With the arrival of the internet and free access to almost all of the world's information, one could have expected that people are now better informed than ever. Whether we are, we do not exactly know. But we do observe that over some issues, such as climate change, positions are quite polarised. And, more importantly, the polarisation does not seem to be a problem of information. It is more prominent under the highly educated, a problem of perception rather than information, and related to the fat-tailed and complex nature of climate change events.

Polarisation Is More Prominent Among the Highly Educated

Motivated reasoning is one of the root causes that leads to polarised positions. This implies that people who think they are better at 'reasoning' are more prone to confirmation bias: evidence is taken into account to the extent that it fits with prior beliefs. David Leiser cites the research that shows this on many topics, but clearly on the issue of climate change: the more highly people are educated, the more prominent the polarisation on climate change is.

This fact holds a lesson for all those concerned with the environment: more information, education or government education might result in increased polarisation, and not in less. Communication has no effect on those who are already convinced. And those who are convinced of an alternative will not change their mind. Even worse, they will start to consider the increase in information as propaganda. As Peter Drucker notes in his book on the eve of the second world war: "Yet it is as true today as it ever was that propaganda only converts those who already believe". (Drucker, 1939).

Some polarisation on the issue of climate change has been intentional: some conservative or centre-right parties have been very reluctant in accepting climate change as an important problem (Carrus et al., 2018). Although possibly motivated by the fear of anarchist tendencies, the effect of framing climate change activists as 'radicals' have played into the hands of those groups that are now seen as a threat to Western democracy, i.e., conspiracy thinkers.

As shown by David Leiser in this volume, conspiracy-style thinking has become more and more pervasive in the Western world. It is a style of thinking that is usually connected to a distrust in public institutions, most notably the government. It can sometimes be born out of boredom,¹ or out of scepticism, but can just as well be weaponized by terror groups and state actors to destabilize free and democratic countries.

Biases in Perception Make Climate Risks Hard to Incorporate in Daily Life

People's perceptions of climate change affects the way they express themselves in public and, more importantly, at the ballot box. In this volume, Wouter Botzen

¹As in "Is QAnon a game gone wrong?" an FT Film, October 15, 2020. Available at <https://www.youtube.com/watch?v=-4vb6UWhf3o>

describes biases in how people arrive at perceptions of climate change, and how that leads to unnecessary polarisation.

The biases are those of simplification, availability, finite pool of worry and myopia. Simplification means that very small risks are simplified into a category of negligible risks that need no further concern. The availability bias makes people assess only those risks for which events are available to them in living memory. A finite pool of worry limits the number of problems that people assess as warranting attention. Finally, myopia (short-sightedness) shortens the time horizon at which people assess risks. These four biases work against a realistic assessment of climate risks.

Communication strategies and the framing of climate policy should take into account the existence of these biases. The chapter of Botzen details these, such as communicating climate risks in a way that is simpler and in proportion to other life experiences that we have. The price mechanism is another way of making sure that people can make decisions that take climate considerations into account. For example, it would be quite helpful if the reduction in CO₂ that comes with home isolation or energy saving investments would be quantified as such. Doing this requires some effort from governments, but would add to the credibility of policies that are advocating personal responsibility.

A contributing factor to problems of perception is that of personal values. The beliefs and unbeliefs in the realities of climate change seem to be related to values that people have. Those with individual and hierarchical values tend to be more sceptic. Those with egalitarian and communitarian values are less sceptic. As a consequence, a reasoned approach to climate change should avoid a shallow framing of the problem. Graham et al. (2009) and Haidt (2012) warn of the framing of political issues in terms of an ‘individualizing’ cluster of values, such as care and fairness. This leaves out the group-focused cluster of ‘binding’ values, such as loyalty, authority and sanctity.

An Interplay of Predictable Risks

Climate change risks are extremely difficult to assess for anyone. And even if they are properly assessed, the materialization of risks can be misleading. The reason is that the distribution of extreme weather outcomes, or disasters, is typically fat-tailed: it does not follow the normal Gaussian distribution of outcomes. Shoe sizes, heights and IQ are all Gaussian distributed, which makes measurement of a small sample representative for the whole population. Heavy-tailed distributions are the opposite, which makes a small no-risk sample quite misleading: the absence of events does not imply an absent risk. Rather, it suggests that risky events, if they occur, will be large.

In this volume, Francisco Estrada makes the point that climate risks are heavy-tailed because they come from the interplay between more predictable trends. We know that the temperature rises and it is easy to see this as a ‘normal’ process: like the temperature falls and rises over the course of the seasons. But it is misleading because the global rise in temperatures interacts with other processes, like ice

formation on the Antarctic continent. It is the interaction between several well-known, predictable processes, that leads to unpredictable events.

It is the nature of catastrophic events that makes climate change policies a hard political problem: the absent of catastrophes cannot be claimed as a political ‘win’, as it says nothing about the underlying likelihood of extreme events. It forces politicians to be more authentic in the underlying ‘matter’ (Taylor, 1992) and be less concerned with the mood of the moment.

1.3 Achieving a Good Distribution of Responsibilities

Climate action cannot be limited to government policies. If our economies ever become climate neutral, it will be because households and firms have innovated, invested and consumed in different ways than they currently do. This is the perspective of ‘subsidiarity’: the idea that responsibility is best laid at the lowest hierarchical level. Subsidiarity is a conviction that people thrive in an environment where there is a clear and simple relationship between their own actions and the results of those actions.

The principle is mentioned as such in the Treaty on European Union (1992) and extended in the Treaty of Amsterdam (1997) to be used in the assessment of legislative proposals. In this form, subsidiarity is a bulwark against instrumentalism and an overbearing bureaucracy.

A good distribution of responsibilities leads to economic efficiency. Efficiency means that we reduce greenhouse gases at the lowest cost possible. It is a necessary condition for a sustainable economic model for which moral convictions are, by themselves, not enough. As Bowles and Carlin (2020) write: “Successful policy paradigms combine a set of ethical values with a model of how the economy works, a property of which is that the pursuit of those ethical values contributes to the performance of the economy as represented in the model.”

There is also an existential reason for devolving responsibilities: a sustained effort to better the world needs ample room for joy, curiosity and cooperation. Joy is the expression of doing something that is worthwhile and that draws on our abilities to overcome hurdles, to work together with other people. In this cooperation, we learn from each other, experience human relationships, mutual help, reciprocity and love. It is a necessary ingredient of meaningful life and it comes to us when there is room for initiative and freedom. Without it, climate change action risks becoming a joyless and bureaucratic affair.

In this section, I describe the lessons from the following chapters as follows: Firms and households alike would benefit from easier-to-access facts about carbon prices and the value of their contribution. For companies to take on their own responsibility, taxation could evolve to be more friendly to a circular form of production. Financial markets should price the risks of unsustainable business practices correctly. And countries could muster the national pride and sense of direction by formulating difficult technical challenges as ‘Apollo projects’.

An Arbiter of Facts as a Form of Climate Policy

Households and firms have a hard time gauging the realities of climate change and their role in mitigating greenhouse gas emissions. Large firms in Europe have the emissions trading scheme (ETS), the rest of us have nothing. That is, we might receive well-intended communication about subsidy schemes, energy savings plans and the possibilities of investing in clean energy. But what we – the public – lack is a clear *quantification* of the size of the contribution that is needed.

As Von Storch writes in his contribution, most of the middle class is keen on acting against the potentially catastrophic effects of climate change. However, it lacks trustworthy estimates of the size of the challenge, and the role it can play in it. To stimulate political responsibility and accountability, the public needs cost-benefit analyses of climate policies, both in terms of money and of emissions.

Possibilities for a Green Corporate Tax

The legal structure of the corporation is a unique invention, as a place where people work together for a common goal. It brings together labour, capital and entrepreneurship in a way that is beneficial to all the partners. In his contribution, Jan Gooijer describes the reasons for corporate taxation, next to personal income taxes and value-added taxes. From the theory of taxation, a clear rationale emerges for basing some of the tax rules on the extent of circularity of the company.

Currently, corporate taxes do not discriminate on whether the firm pollutes, uses many or little resources, or performs any function in transitioning towards a more sustainable economy. Instead, they could better differentiate between business practices that are sustainable and those that are not. Criteria have been developed that are a good starting point for a ‘greener’ corporate tax. For large corporations, the relevant data is already in place by 2022. For smaller and medium-sized enterprises, practical solutions still have to be developed.

The Market Can Be Wrong: A Role for the Central Bank

The information problem about climate change cannot be solved by centralized planning. As Hayek (1945) points out in his famous essay *The use of knowledge in society*, there is simply not enough power of mind and coordination to understand and influence the actions and interactions of millions of people. It is the price mechanism that performs this role, almost magically, by letting the individual actions of consumers and producers be displayed in the prices of goods and services. This mechanism should and does work for the challenge of reducing greenhouse gases.

However, devolving responsibility to the market for assessing the seriousness of climate change or the shadow price of climate action has pitfalls. As Dirk Schoenmaker points out in his contribution, markets have been spectacularly wrong before. One only has to think of the statement of former Fed-governor, Alan Greenspan, to Congress, after the derivative market collapsed in 2008: “I made a mistake in presuming that the self-interests of organisations, specifically banks and others, were such that they were best capable of protecting their own shareholders and their equity in the firms” (Clark & Treanor, 2008). And this meant that a theory was wrong that he had held dear for a long, namely that of efficient markets.

Markets could be wrong again, especially in how they value traditional, polluting businesses. Climate neutrality by 2050 requires that not all proven reserves of carbohydrates are mined. Investors, however, are still pricing in the value of proven reserves, see Livsey (2020).

Given the imperfections in how investors assess climate risks, and the potential tipping points in the climate, Schoenmaker argues for a larger role of the ECB. The ECB could incorporate a sustainable outlook in their operations, such as in a Green-QE program. This could be one way of influencing the markets and preventing an “I was wrong” statement by the then-ECB president in 2030.

For a good distribution of responsibilities, a clear mandate from the EU on this topic would be essential. Its current mandate is not sufficient to fully take on the responsibilities for a “Green QE” operation. Political action is required.

Apollo Projects as Stimulators of Innovation

The climate change challenge is in the gigaton-range. This scale of emission reductions is not in a range that is comprehensible by ordinary households or small and medium enterprises. This scale needs to be in proportion to the scale from which solutions can be expected. Energy savings plans and relying on current technology will just not do enough. What is needed are incentives, prizes or an appeal to national pride to develop breakthrough technologies.

The public is keen on acting against the potentially catastrophic effects of climate change. However, the effects of individual action, or even those of groups of people, can be very disappointing in terms of emissions reductions. This inconvenient fact is the starting point for the contribution of Hans von Storch. His contribution connects the goodwill of people and the thrill of exploration to what is needed for a long-term solution to halt or reverse anthropogenic climate change.

In this volume, Hans von Storch lists the breakthroughs that are not just nice-to-have, but essential and required for developed economies being net-carbon-neutral in 2050: cheap and high-capacity storage of electricity, sources of green energy, carbon capture and sequestration, emission-free ship propulsion. And so on. Von Storch calls these projects ‘Apollo projects’ that should appeal to national pride and to working towards something, not because it is easy, but because it is hard.

It is an appealing and joyful prospect to set high goals. It connects the goodwill of people and the thrill of exploration to what is needed for a long-term solution to halt or reverse anthropogenic climate change. It reminds us of the Ansari X Prize for incentivizing the creation of a reliable, reusable, privately financed, crewed spaceship. Innovation is helped by unleashing forms of competition, a variety of motivators and well-designed goals (Wagner, 2011). A similar momentous effort was the race to map the whole human genome in 2000, or the race to create a vaccine for the worldwide Covid-19 pandemic in 2020. In the latter case, a previously unheard of time of just 9 months, technology, entrepreneurship and politics came together to solve a global issue. This approach should inspire governments everywhere to set ambitious goals for technological breakthroughs that are needed. It is also rooted in the normal inclinations of people to seek novelty, cooperation and marvel at new discoveries.

1.4 Building on Existing Moral Inclinations

Humans have an inbuilt sense of right and wrong. And, since companies are made up of people, we can expect them to have a corporate moral responsibility. The cases of wrongdoing, both by individuals and by firms are the exceptions that prove the rule: evil needs to be punished. Without having to digress into natural law, we can state that climate change policies can build on existing moral imperatives.

Morality can change, and does change over time. This is the democratic element of ethics: there are things that we consider ‘right’, just because everybody around us believes so. This is a process of cultural development and should be respected as such.

It is in this sphere of cultural change that many climate change proposals are sometimes proposed: people should eat less meat, fly less, and have a smaller environmental footprint. This can be counterproductive. Mostly, because it presupposes that cultural norms can be changed at whim. They do not. And even if they could, we should be wary of grand schemes to try to change cultural norms in the direction of who happens to be in power (Dikötter, 2016).

Work with Biases, Not Against Them

In Chap. 2, Wouter Botzen classifies five types of biases that are relevant for people’s attitudes towards climate change. They are the biases of simplification, availability, a finite pool of worry, myopia (short sightedness) and herding. The complexity of the climate problem does not lend itself to a simple cause-and-effect relationship or personal experience of the problem at hand. This limits the possibility for understanding the problems at hand, let alone to convince voters.

At the same time, the biases are nothing new for the politically inclined: since the beginning of time, political communication and strategy have made use of the heuristics and biases that people use to observe the outside world. The overarching theme for political action is that of framing: the deliberate action of associating a certain cause with elements that appeal to voters. It is in the framing that we should acknowledge moral imperatives and be wary of framing it in a way that only appeals to the interested sub-group. As Botzen writes: “A broader willingness to contribute to solving this problem, based on intrinsic motivations, is urgently needed if policy-makers aim to rapidly transit to a low-carbon economy.”

A Legal Basis for Greening Corporate Taxation

If we want corporations’ interests to be aligned with the goal of a more circular economy, the tax code is a potential factor for change. But at the same time, taxation should adhere to sound principles and not have an ad hoc character. In his contribution, Jan Gooijer, describes the rationale for corporate taxation as that of privileged acquisition, balance of power and that of the damage and well-being principle. Within these principles he finds enough traction for fiscal rules that take into account the sustainability of company real estate and an interest rate deductibility that takes into account the environmental impact of production.

1.5 Conclusion

Climate change can only become a common challenge if we move beyond polarised positions, have a clear distribution of responsibilities and build on the moral inclinations that are present or develop from the population at large. From this conviction, this chapter has tried to summarize the main lessons from the contributions in this book along the lines of the three aspects.

Polarisation is at first a problem of knowledge and perception, and made worse by the complex nature of climate change. Paradoxically, polarised positions are more clearly seen under highly educated people. It seems to vindicate David Hume's aphorism that *reason is a slave to the passions*. Policy makers should be aware of this problem and not expect too much from communication and information. Moreover, political strategies that downplay scientific facts or concerns could backfire in being supportive of conspiracy-style thinkers.

A distinct separation of responsibilities is crucial for efficiency and sense of responsibility of households and firms. A green corporate tax exemplifies the responsibilities of the corporate sector. A proper market for waste make circularity possible. Information about carbon prices and the efficiency gains of technologies are needed for firms and households to take their own initiative. The importance of a functioning ETS market for carbon emissions cannot be overstated, but there remain market failures that could be addressed by the ECB. For the ECB to act on that, however, it first needs a clear mandate in its charter.

Finally, incorporating a view on existing morals should not be a high-brow exercise in virtue signalling but a way of bridging antagonistic positions. It is the existing polarisation that should teach us to bridge divides and find a middle ground. And there are enough leads for finding a middle ground: we can avoid working against behavioural biases. Green corporate taxation can be based on existing legal grounds. Apollo projects can appeal to our sense of national pride in a positive way and stimulate joyful innovation. That would constitute a good 'climate of the middle'.

References

- Bowles, S., & Carlin, W. (2020). Shrinking capitalism. *AEA Papers and Proceedings*, 110, 372–377.
- Carrus, G., Panno, A., & Leone, L. (2018). The moderating role of interest in politics on the relations between conservative political orientation and denial of climate change. *Society & Natural Resources*, 31(10), 1103–1117.
- Clark, A., & Treanor, J. (2008). Greenspan—I was wrong about the economy. Sort of. *The Guardian* 24.
- Dikötter, F. (2016). *The cultural revolution: A people's history, 1962–1976*. Bloomsbury Publishing USA.
- Drucker, P. F. (1939). *The end of economic man: The origins of totalitarianism*. Transaction Publishers; Revised edition (January 30, 1995).

- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96(5), 1029.
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. Vintage.
- Hayek, F. A. (1945). The use of knowledge in society. *The American Economic Review*, 35(4), 519–530.
- Livsey, A. (2020). Lex in depth: The \$900 bn cost of ‘stranded energy assets’. *Financial Times* February 4, 2020.
- Taylor, C. (1992). *The ethics of authenticity*. Harvard University Press.
- Wagner, E. B. (2011). Why prize? The surprising resurgence of prizes to stimulate innovation. *Research-Technology Management*, 54(6), 32–36.

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