

Discourses of climate delay

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1. Methods

Our deductive identification of climate delay discourses was performed in three stages. First, we elicited an exhaustive set of discourses from the study co-authors via group discussion and a collaborative document. These discourses were initially framed as anti-climate policy arguments we have encountered that are neither climate denial, impact scepticism, nor ad-hominem attacks. Second, again drawing from our collective experience studying and observing climate policy debates, we identified known quotes and statements relating to each discourse. These were drawn from prominent media sources in an illustrative manner, primarily from sources in our respective countries (Germany, UK, USA) and often centring on recent public debates, for example on the introduction of a ‘Climate Packet’ in Germany and the wave of ‘climate emergency’ declarations in Europe. We also searched for statements from prominent ‘skeptical’ public figures and organisations, and made use of a larger project examining testimony submitted to the Massachusetts State Legislature on climate and clean energy legislation in the period 2013-2018. Third, based on group discussions and a reading of related literatures grounded in content analysis (Bickerstaff & Walker, 2002; Bohr, 2016; Jacques & Knox, 2016; McKie, 2019), we identified four normative and

epistemic questions that differentiate four categories of discourses (see table 1). This iteratively led to a further refinement of the individual discourses, as some arguments could be combined or refined based on these framing questions.

Our basic approach of collating these discourses has the advantage of rapidly surveying the current landscape of climate policy discussions. It offers a response to a growing set of discursive strategies that are being deployed with potentially devastating effect on climate policy support. However, since we do not perform an inductive nor systematic analysis of collated texts, it is open to criticism on grounds of subjectivity and selection bias. This typology should therefore be recognised as a heuristic for readers, policy makers and citizens to identify such arguments – and as a means to stimulate further empirical research and discussion on their prevalence.

2. Summary and categorisation of discourses

	Is it our responsibility to take actions?	Are transformative changes necessary?	Is it desirable to mitigate climate change, given the costs?	Is it (still) possible to mitigate climate change?
Individualism - <i>Individuals and consumers are ultimately responsible for taking actions to address climate change.</i>	No	Neutral	Neutral	Yes
Whataboutism - <i>Our carbon footprint is trivial compared to [...]. Therefore it makes no sense for us to take action, at least until [...] does so.</i>	No	Neutral	Neutral	Yes
The ‘free rider’ excuse – <i>Reducing emissions is going to weaken us. Others have no real intention of reducing theirs and will take advantage of that.</i>	No	Neutral	Neutral	Yes
Technological optimism – <i>We should focus our efforts on current and future technologies, which will unlock great possibilities for addressing climate change.</i>	Yes	No	Neutral	Yes
All talk, little action - <i>We are world leaders in addressing climate change. We have approved an ambitious target and have declared a climate emergency.</i>	Yes	No	Yes	Yes

Fossil fuel solutionism – <i>Fossil fuels are part of the solution. Our fuels are becoming more efficient and are a bridge towards a low-carbon future.</i>	Yes	No	Neutral	Yes
No sticks, just carrots - <i>Society will only respond to supportive policies, restrictive measures will fail and should be abandoned.</i>	Yes	No	Neutral	Yes
Appeal to social justice - <i>Climate actions will generate large costs. Vulnerable members of our society will be burdened; hard-working people cannot enjoy their holidays.</i>	Neutral	Neutral	No	Yes
Appeal to well-being – <i>Fossil fuels are required for development. Abandoning them will condemn the global poor to hardship and their right to modern livelihoods.</i>	Neutral	Neutral	No	Yes
Policy perfectionism - <i>We should seek only well-crafted solutions that are supported by all affected parties; otherwise we will waste limited opportunities for adoption.</i>	Neutral	Neutral	No	Yes
Change is impossible - <i>Any measure to reduce emissions effectively would run against current ways of life or human nature and are thus impossible to implement in a democratic society.</i>	Neutral	Yes	Neutral	No
Doomism - <i>Any mitigation actions we take are too little, too late. Catastrophic climate change is already locked-in. We should adapt, or accept our fate in the hands of God or nature.</i>	Neutral	Yes	Neutral	No

3. Full list of discourses and examples

3.1. Individualism

Summary: *Individuals and consumers are ultimately responsible for taking actions to address climate change.*

Strategy: This discourse pushes responsibility onto individuals, arguing that they should take appropriate decisions as consumers and voting publics to address climate change. Individualism avoids discussion of corporate responsibility and the regulatory measures that would be needed to stimulate system-wide change. It ignores problems of power and the constellations of influence (media, marketing, pricing, etc.) that shape many individual actions.

Examples:

- *“I have three daughters, they are all quite fashion conscious,” he explained. “I like to point out to them, having something new for every season four times a year is creating quite a significant ecological footprint, have you realised that? Because they are all about climate change.”*

(Ben van Beurden, CEO Shell, <https://twitter.com/emilygosden/status/1138417660134416384>)

- *Norway accepts no climate responsibility for the oil exported. In the Saturday interview, Norwegian Prime Minister Erna Solberg says that it is the buyer of the oil that is responsible for the emissions: “I think it is unreasonable that we take responsibility for the Swedes' driving. The Swedes are allowed to do this themselves.”*

(Erna Solberg, Prime Minister of Norway,

<https://sverigesradio.se/sida/artikel.aspx?programid=83&artikel=7335804>)

- *“Yale’s guiding principles are predicated on the idea that consumption of fossil fuels, not production, is the root of the climate change problem. Targeting fossil fuel suppliers for divestment, while ignoring the damage caused by consumers, is misdirected. Given the world’s current (and growing) energy needs, modern society could not exist without fossil fuel consumption. Life’s basic necessities, including food and shelter, require petroleum-based products and services. Petroleum-based products are an integral part of everyday life, as they are used in transportation fuels, heating, electricity generation, and feedstocks for making chemicals, plastics, and synthetic materials found in many consumer products. Without demand from governments, businesses, and consumers, fossil fuel suppliers would not have a market for their products.”*

(Yale University response to the fossil fuel divestment campaign; document available here

<https://static1.squarespace.com/static/55db7b87e4b0dca22fba2438/t/5bbcf4bce79c70ae71531616/1539110076569/Climate+Change.pdf>)

- *“BP had a vision: to inspire the public and attendees of the One Young World event to reduce their carbon emissions.*

Our ‘Know your carbon footprint’ campaign successfully created an experience that not only enabled people to discover their annual carbon emissions, but gave them a fun way to think about reducing it – and to share their pledge with the world.”

(BP “Know your carbon footprint” social media campaign and website, <https://www.six.agency/work/bp-know-your-carbon-footprint>)

3.2. Whataboutism

Summary: *Our carbon footprint is trivial compared to [...]. Therefore it makes no sense for us to take action, at least until [...] does so.*

Strategy: Whataboutism focuses attention on distant perpetrators of climate harm over which the discursive agent and audience have limited control (such as China, or difficult to mitigate industries). This discourse often exploits confusion between aggregate levels of emissions and per capita emissions. For instance, it is common to claim that a country represents only (e.g.) 2% of total global emissions, and therefore has limited responsibility, despite high per capita or historical emissions. The strategy also works for industries and the carbon intensity of activities, for instance when used to play down the importance of aviation.

Examples:

- *“We are a nation that produces 1.8 per cent of global carbon dioxide, so I do not get closing down our aluminium smelters, most of our steel production, and now our refining industry, and all that production being moved to India, and therefore the steel-based products made in India then having to be shipped back to Britain! This to me makes no sense at all.”*

(Nigel Farage, <https://www.climatechangenews.com/2015/03/11/nigel-farage-on-climate-change-in-his-own-words/>)

- *“We are convinced that the major responsible for the climate disaster are the industrialized countries, which created the conditions causing the problem and export them to the rest of the world, they must decide that the time for change has come and comply with it.”*

(General Trade Union Federation, República Argentina, <http://www.cgtrainternacional.com.ar/pdf/CambioClimaticoEMTD.pdf>)

- *“A CO2-price might be a good idea in principle, but we think it does not work if the land transport sector is singled out. First one should see that agriculture is included too.”*

(Anonymous quote, author meeting with a management board member of a German car manufacturer)

- *Ever wonder why farmers feel targeted when it comes to climate action? Have a look at data from yesterday's @EPAIreland climate report. Clearly, the first climate action we can all do is use cars which are less carbon intensive. #backingfarming*

(Tweet by the Irish Farmers Association, <https://twitter.com/IFAMedia/status/1187752472850391043>)

- *"Even if Massachusetts reduced its CO2 emissions to zero, it would have little impact on total U.S. emissions and no impact on global emissions, much less global temperatures. The ability of Bay Staters to heat and light their homes should not be put at risk for a policy that has zero benefits."*

(David J. O'Donnell, Associate Director, Massachusetts Petroleum Council, written testimony regarding Massachusetts House bill 3281, 10/10/2017)

- *"Oil and natural gas are not the only products that have contributed to rising greenhouse gas emissions. Using fossil fuel companies as scapegoats without addressing the systemic issue of decarbonizing all of society risks allowing the other contributors to continue with business as usual."*

(Brent Wm. Gardner, Vice President of Government Affairs, Americans for Prosperity, written testimony in opposition to Massachusetts Senate bill 1747, 10/27/2015)

- *"But even if it were possible to fully achieve the desired CO2 emission reduction [in Germany], it would only result in a maximum reduction of 0,000,653 °C of a hypothetical temperature increase, sometime in the distant unknown future."*

(AfD Fraction application in the German parliament,
<http://dip21.bundestag.de/dip21/btd/19/140/1914069.pdf>)

- *"If Germany were to meet its committed targets and actually save 163 million tonnes of CO2 by 2040, this would simply not be noticeable given the global increase of 10,836 million tonnes. But what role does Lusatian lignite play in this increasingly negligible share of Germany? "*

(Pro Lausitz Braunkohle, <https://www.pro-lausitz.de/index.php/News-leser/items/teil-4-lausitzer-braunkohle-der-klimakiller.html>)

3.3. The 'free rider' excuse

Summary: *Reducing emissions is going to weaken us. Others have no real intention of reducing theirs and will take advantage of that.*

Strategy: The 'free rider' excuse propagates a zero-sum-game view of global climate mitigation: if we adopt policies to reduce emissions, others will actively take advantage of us, for instance by increasing production

and employment in dirty sectors, or by continuing to flout global decarbonisation norms. It takes advantage of, and encourages, mistrust towards foreign nations. It ignores the achievements of global climate deals and encourages a race towards the bottom. The narrative that one's own country is virtuous, fair and is 'playing too nice', while other countries are devious and ready to take advantage of it, is a key ingredient of nationalism.

Examples:

- *"In short, the agreement doesn't eliminate coal jobs, it just transfers those jobs out of America and the United States, and ships them to foreign countries. This agreement is less about the climate and more about other countries gaining a financial advantage over the United States. The rest of the world applauded when we signed the Paris Agreement — they went wild; they were so happy — for the simple reason that it put our country, the United States of America, which we all love, at a very, very big economic disadvantage. A cynic would say the obvious reason for economic competitors and their wish to see us remain in the agreement is so that we continue to suffer this self-inflicted major economic wound. We would find it very hard to compete with other countries from other parts of the world."*

(President Trump statement on the US withdrawal from the Paris Agreement;

<https://www.whitehouse.gov/briefings-statements/statement-president-trump-paris-climate-accord/>)

- *"I ask: what's it all for? We've been told that it's all about saving the world with some deluded notion that if we completely stopped emitting carbon in Australia today we would have some profound impact on saving the globe. This is false, the facts are clear: of global emissions China is responsible for 28%, America 15%, Europe 11%, India 7%, and Australia entirely 1.3% of global emissions. If we stopped emitting altogether tomorrow, not only it would have no impact but undoubtedly other countries would simply increase their emissions because to suggest the kind of manufacturing we do here in Australia could be done cleaner or greener in China or India is just a false proposition"*

(Josh Manuatu, president of the Australian Young Liberals,

https://www.youtube.com/watch?v=iQ3_nHLz67s)

3.4. Technological optimism

Summary: *We should focus our efforts on current and future technologies, which will unlock great possibilities for addressing climate change.*

Strategy: Technological optimism diverts attention from the (near-term) regulation of fossil fuels and demand-side energy use, while focusing attention on the long-term (uncertain) prospects of technological

change. It frames climate mitigation in a positive and optimistic light that is consistent with right-of-centre entrepreneurial values.

There are many variations. In generic form, technological optimism often refers to past transitions between technology systems, implying that such a transition will naturally occur for climate mitigation due to human ingenuity and market forces. A more specific 'technological myths' strategy takes advantage of short-termism in the public and media debate by repeatedly claiming, over time, that a low-carbon technological breakthrough will happen in a few years. This breakthrough is typically presented as imminent enough to discourage other forms of climate action (e.g. reducing demand), but also as far enough in the future to justify why it is not happening already. A third strategy is to hype the low or declining carbon intensity of current technologies, ignoring the absolute emissions associated with growth in demand for these products or services.

Together these discourses distract from on-going unsustainable technology transitions (e.g. the growth of SUVs, fossil exploration). They also disguise and confuse the importance of absolute, rather than relative, emissions growth.

Examples:

- *"BMW group reduces CO2 Emissions in Europe again" PR: "The BMW Group has reduced CO2 emissions from its new car fleet in Europe (EU 28) to 122 grams/kilometre. Compared to 2016, this marks a reduction of a further 2 gram/kilometre (2016: 124g/km). The BMW Group has been reducing CO2 emissions from its EU fleet for years: since 1995, the average CO2 emissions for new BMW Group vehicles sold in Europe has fallen by more than 42%."*

(BMW press release; <https://www.press.bmwgroup.com/global/article/detail/T0278971EN/bmw-group-reduces-co2-emissions-in-europe-again?language=en>)

- *Yet asked if, given the "climate catastrophe", we should be flying less, Mr Hancock told BBC Radio 5 Live: "Nope. I think connectivity around the country is incredibly important. "Take the flights to the Scilly Isles for instance, it's very hard and takes a long time to get to the Scilly Isles if you're not in an aeroplane."*

He said he had flown from London to Aberdeen, and asked if he'd do it again he replied: "Yes of course, if that's necessary."

Asked what "necessary" meant he said: "Well if I needed to get to Aberdeen and I didn't have time to get the train."

A direct train from London to Aberdeen takes seven hours. Asked if Brits shouldn't be making sacrifices on issues like that to help the environment he said: "No."

"We should use technology to reduce carbon emissions - for instance electric planes are a potential in the not too distant future.

"I am told that electric planes are on the horizon, if that's not pushing the metaphor too far."

He added: "Flying has already decarbonised and can decarbonise more."

(Matt Hancock, United Kingdom Health Secretary, <https://www.mirror.co.uk/news/politics/top-tory-says-should-carry-21283119>)

- *"Wind and solar power generation is expanding around the globe at record rates, allowing more people to get their electricity from clean, renewable sources than ever before. This is great news. And here's better news: We can do even more. By investing in energy innovations, we can build on the progress we've made deploying current technology like renewables, which will help accelerate the transition from fossil fuels to a future of reliable and affordable carbon-free electricity. This would be an incredible achievement and **the most important step we can take to prevent the worst impacts of global warming.**"*

(Bill Gates; <https://www.weforum.org/agenda/2019/05/a-critical-step-to-reduce-climate-change/>; own emphasis)

- *"A carbon tax can play a limited but important role in factoring the costs of climate change into fossil-fuel use. Nobel laureate climate economist William Nordhaus has shown that implementing a small but rising global carbon tax will realistically cut some of the most damaging climate impacts at rather low costs. This, however, will not solve most of the climate challenge. We must look at how we solved past major challenges — through innovation. The starvation catastrophes in developing nations in the 1960s to '80s weren't fixed by asking people to consume less food but through the Green Revolution in which innovation developed higher-yielding varieties that produced more plentiful food. Similarly, the climate challenge will not be solved by asking people to use less (and more expensive) green energy. Instead, we should dramatically ramp up spending on research and development into green energy."*

(Bjørn Lomborg, Director of Copenhagen Consensus Center, <https://nypost.com/2019/10/12/climate-change-activists-are-focused-on-all-the-wrong-solutions/>)

- *The Earth's Resources Are Limited, but Human Ingenuity Is Infinite*

(Ryan Bourne, Cato Institute Commentary, <https://www.cato.org/publications/commentary/earths-resources-are-limited-human-ingenuity-infinite>)

3.5. All talk, little action

Summary: *We are world leaders in addressing climate change. We have approved an ambitious target and have declared a climate emergency.*

Strategy: All talk, little action is a strategy that centres on establishing one's own definition of success, referring back to this claim in order to deflect from more stringent mitigation demands. It is common to use a narrow interpretation of progress, along a specific time-period, with reference to a concrete example.

One variation is to tout actual historical reductions in greenhouse gas emissions (e.g. in Northern EU countries). Another is to draw attention to the setting of broad target-based commitments. Both strategies satisfy public demands that 'something must be done' on climate change, without actually doing what is necessary (i.e. establishing concrete policy instruments such as a carbon price, or addressing future bottlenecks in climate mitigation, such as the transport and agricultural sectors). They highlight political action, but can obscure high levels of per capita (and consumption-based) emissions. They also tap into popular nationalism / exceptionalism narratives.

Examples:

- *"The UK has a world-leading record in tackling climate change. We are rightly proud of our performance against our carbon targets, having overperformed for the second time, leading us to cut our emissions faster than any G7 country. We remain firmly committed to tackling the threat of climate change and to meeting our future carbon targets through the ambitious plans and policies set out in the Clean Growth Strategy. The decision to reserve part of the second carbon budget is a technical one which does not impact the Government's commitment to taking strong domestic action to reduce greenhouse gas emissions and tackle climate change."*

(Chris Skidmore MP (UK), response to a parliamentary question from Caroline Lucas;

<https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2019-06-05/260610/>)

- *"Since 2011, carbon dioxide emissions have been cut dramatically in New England. Massachusetts should be proud of this leadership, but also recognize the costs, challenges and consequences with attempting to dramatically exceed clearly set goals emissions goals through out-of-market mechanisms like Senate Bill 1747."*

(Dan Dolan, President, New England Power Generators Association, written testimony submitted in opposition to Massachusetts Senate bill 1747, 10/27/2015)

- *"Ecological and environmental governance has been significantly strengthened, leading to marked improvements in the environment. Taking a driving seat in international cooperation to respond to*

climate change, China has become an important participant, contributor, and torchbearer in the global endeavour for ecological civilization.”

(Xi Jinping, Speech to National Congress,

http://www.xinhuanet.com/english/download/Xi_Jinping's_report_at_19th_CPC_National_Congress.pdf)

3.6. No sticks, just carrots

Summary: *Society will only respond to supportive and voluntary policies, restrictive measures will fail and should be abandoned.*

Strategy: No sticks, just carrots suggests that climate action should consist exclusively of enticing incentives ('carrots'), avoiding any restriction, regulation or even monetary disincentives ('sticks') as these are deemed as unacceptable to the population. This runs against evidence suggesting that 'carrots' and 'sticks' are complementary, that both are required for effective climate action. This rhetoric fits well with populism, as it tends to depict the population as homogenous, hardworking and overburdened by laws and taxes made by the 'elites'. It also tends to obscure the way in which some parts of the population would 'lose' from 'stick' measures, while others would 'win' (e.g. taxes on aviation would affect mostly frequent fliers, which are concentrated among the top income classes).

Examples:

- *“The environment minister wants to increase taxes on flights. Why not make the railways more attractive instead?”*

(Christian Lindner, leader of the Free Democratic Party in Germany

https://twitter.com/c_lindner/status/1151816780752531456)

- *“We put emphasis on the innovative capacity of competition. Innovative approaches and new technologies are key for climate action. Greater efficiency reduces energy, resource use, and emissions, while improving quality of life (...). We don't prescribe sustainable behaviour through regulations, we put our trust in the citizen's sense of responsibility”*

(German Free Democratic Party's strategy on climate action - <https://www.fdp.de/thema/klimaschutz>)

- *“My approach is that I want more options, rather than bans. Banning – that's the Green's approach, they want to prescribe how people should travel. There will be no paternalism and tax increases with me. (...) I expect much from incentives (...). [The possibility of mass protests like the French Yellow Vest movement in Germany] is exactly what worries me. Politicians in Berlin toy around with ideas that are far removed from people's daily lives outside of the capital. People are angry about it, and*

they stand up to it. They want climate action and clean air, but don't want vehicle bans, motorway speed limit reductions or tax increases. They want to live free"

(Andreas Scheuer, Germany's Transport Minister, <https://www.nrz.de/politik/andreas-scheuer-fordert-gegenwehr-gegen-diesel-fahrverbote-id216353873.html>)

- *(on British government plan to increase taxes on flights): "No, no, no. This is idiocy. There's a LOT we can do on climate change that would reduce emissions while creating jobs & new tech (solar, electrification, EVs, wind power). If govt says extra taxes only way to tackle climate crisis, people will resist it. Have we learnt nothing from the setbacks of the last 20 years? There is so much that could be done to tackle the climate crisis before making it about higher taxes. All this does is alienate more working class people from climate-related concerns."*

(Sunny Hundal, British journalist https://twitter.com/sunny_hundal/status/1153230475420491777)

3.7. Fossil-fuel solutionism

Summary: *Fossil fuels are part of the solution. Our fuels are becoming more efficient and are the bridge towards a low-carbon future.*

Strategy: The fossil fuel industry often argues that it is well positioned to advance climate solutions, predominantly through technological means. These discourses are similar to technological optimism, but they point to specific areas of progress: reducing fossil extraction and production emissions, investing in "cleaner fuels" or "bridging fuels" (e.g. gas), and developing carbon capture and storage. A central rhetorical strategy is to connect fossil fuels to the good life, implying that any shift away from them will challenge prosperity and social progress.

Examples:

- *"We believe this industry is part of the solution to the scourge of climate change"*

(Mohammed Barkindo, Secretary General, OPEC; <https://grist.org/article/opec-head-climate-activists-are-the-greatest-threat-to-oil-industry/>)

- *"Natural gas and oil... support hundreds... of high-tech career paths... these big brains... produce cleaner energy... while reducing emissions..."*

(American Petroleum Institute TV advertisement; <https://www.ispot.tv/ad/oztj/american-petroleum-institute-investing-in-the-future>)

- *"This ain't your daddy's oil... oil gushes art... oil strikes a pose... oil taps potential... oil pumps life... oil runs cleaner... oil explores space... together we can power past the impossible"*

(American Petroleum Institute TV advertisement; <https://www.ispot.tv/ad/A3ck/american-petroleum-institute-super-bowl-2017-power-past>)

- *"ExxonMobil will continue to focus our efforts on providing the energy the world needs, while simultaneously addressing the risk of climate change by reducing our emissions, helping consumers reduce theirs, and advancing research to find new low-emissions technologies for the future."*

(Suzanne M. McCarron, Vice President of Public and Government Affairs at ExxonMobil;

<https://corporate.exxonmobil.com/Energy-and-environment/Environmental-protection/Climate-change>)

- *"And, as most of the scientific community represented on the Inter-governmental Panel on Climate Change agreed as recently as 2014 that other energy sources, including natural gas, are likely to prove indispensable in the ongoing global effort to combat climate change."*

(David J. O'Donnell, Associate Director, Massachusetts Petroleum Council, written testimony submitted in opposition to Massachusetts House bill 3281, 10/10/2017)

- *"By eschewing regulation, America has also spurred additional emissions-reducing innovations in the private sector. Freed from red tape, U.S. energy firms have been able to devise and implement a host of groundbreaking green technologies. [...] While the rest of the world fumbles with green energy policies, the U.S. continues to reduce emissions. We don't need regulation to guarantee future success. American firms will continue to combat climate change, as long as we let them."*

(Drew Johnson, Senior Fellow at the National Center for Public Policy Research -

<https://www.washingtonexaminer.com/opinion/op-eds/unlike-in-europe-the-us-approach-to-climate-change-is-actually-working>)

3.8. Appeal to social justice

Summary: *Climate actions will generate large costs. Vulnerable members of our society will be burdened; hard-working people cannot enjoy their holidays.*

Strategy: The appeal to social justice frames climate mitigation as a social justice issue - focusing attention on the short-term costs of a transition and associated distributional risks, while downplaying long-term benefits and avoided harms. It is often used to highlight potential job losses (e.g. in the coal and automotive industries) and "foregone" consumption opportunities (such as holidays). It tends not to reference the potential social justice benefits of climate policies (e.g. improving public health), nor the benefits of avoiding dangerous climate impacts.

Examples:

- *“The photovoltaic expansion is not stalling at all. When I was the environment minister in 2012, green energy made up roughly 23 percent of the power supply, but today there are days when it supplies around 65 percent of our electricity. Unfortunately, there are days when the wind doesn't blow and there's no sunshine, and then these sources can only provide 15 percent of our power. But we still have to supply hospitals, schools and industry with energy. If all wind turbines are standing still, it doesn't help to have a few thousand more. We can't allow climate protection to jeopardize prosperity and jobs.”*

(Peter Altmaier, Minister of Economic Affairs and Energy, Germany;

<https://www.spiegel.de/international/germany/the-climate-activist-vs-the-economics-minister-my-generation-has-been-fooled-a-1258429.html>)

- *UK Treasury minister Robert Jenrick said the last Labour government tripled air passenger duty and any new tax would “hammer hard-working families and prevent them from enjoying their chance to go abroad”.*

(<https://www.thesun.co.uk/news/8128492/labour-holiday-tax-family-break/>)

- *“Many of the older homes that would be significantly impacted by this legislation are located in less affluent communities where residents have few resources to upgrade their home. The ratings could cause depressed values of those older homes especially those located in Gateway Cities where residents may not be able to afford the energy upgrades needed for a positive score. However well intended, this new scheme may in fact result in a disparate impact on those with the fewest resources and a widening of the gap between the haves and the have nots in the Commonwealth.”*

(Greater Boston Real Estate Board, written testimony in opposition to Massachusetts bill S1839, 11/6/2017)

3.9. Appeal to well-being

Summary: *Fossil fuels are required for development. Abandoning them will condemn the global poor to hardship and their right to modern livelihoods.*

Strategy: The appeal to well-being is an extreme variation of the appeal to social justice. It claims that fundamental livelihoods are threatened by climate mitigation, particularly those in poor and developing countries. The central strategy is to conflate energy access and its associated well-being benefits (e.g. mobility, lighting, heating) and with fossil fuels. Concurrently, it tends to ignore the possibilities of low-carbon and decentralised energy services for addressing development needs.

Examples:

- *"Overreaction to a possible catastrophic threat may cause more harm than benefits and introduce new systemic risks, which are difficult to foresee for a wicked problem. The known risks to human wellbeing associated with constraining fossil fuels may be worse than the eventual risks from climate change, and there are undoubtedly some risks from both that we currently do not foresee."*

(Judith Curry, testimony to Congress, <https://curryja.files.wordpress.com/2019/02/curry-testimony-house-natural-resources.pdf>)

- *"We need to solve climate change, but we also need to make sure that the cure isn't more painful than the disease. Abandoning fossil fuels as quickly as possible, as many environmental activists demand, would slow the growth that has lifted billions of people out of poverty."*

(Bjørn Lomborg, Director of Copenhagen Consensus Center. https://www.project-syndicate.org/commentary/climate-change-fear-wrong-policies-by-bjorn-lomborg-2019-08?mc_cid=e0a17488d9&mc_eid=ba753ed2d9)

- *"It has become somewhat fashionable to cast fossil fuels in a negative light. Yet there are enormous social benefits to using fossil fuels, such as poverty reduction and increased mass mobility of peoples and goods that continue to this day and will for the foreseeable future. If fossil fuel use were to end tomorrow, the economic consequences would be catastrophic (starvation would follow, for example, as tractors' fuel tanks ran dry). Petroleum-based personal care, food, clothing, and packaging products feature heavily in the daily lives of billions of people."*

(David J. O'Donnell, Associate Director, Massachusetts Petroleum Council, 10/10/2017, written testimony on Massachusetts bill H3281)

- *"The [IPCC] report has some scientific credibility, Mohler said Oct. 9 on his podcast The Briefing. But "there is a deep anti-humanism that runs through so much of the ecological movement" and motivates proposals to protect the environment at the expense of human well-being."*

(R. Albert Mohler Jr., president of Southern Baptist Theological Seminary, <http://www.bpnews.net/51737/un-climate-change-report-counterred-by-real-data>)

3.10. Policy perfectionism

Summary: *We should seek only well-crafted solutions that are supported by all affected parties; otherwise we will waste limited opportunities for adoption.*

Strategy: Policy perfectionism delays every legislative action by referring to potential regulatory risks, imperfect policy design, or potential economic costs. It argues that we need more and more time to do better and better policies – ideally at a very high level of ambition and coordination (e.g. a global carbon

price, or a comprehensive reform of the EU ETS). The potential loss of popular support is used to deflect responsibility: "If we rush policies, public support is gone and we can't do anything". Alternatively, it calls for eliminating existing policies, to be replaced by a single optimal solution.

Examples:

- *"We also have a responsibility for social peace in this country."*

(Peter Altmaier in Talk Show Anne Will when asked why the new carbon price in Germany is so low.

https://www.t-online.de/nachrichten/deutschland/id_86496314/tv-kritik-anne-will-zum-klimapaket-dann-kommt-2030-eine-brutale-reform-.html

- *"We want both: to achieve the climate goals by 2030 and to preserve social peace. If a CO2 price had a steering effect, i.e. should immediately lead to changes in behaviour, then 20 or 30 euros would not be enough", the provisional SPD chairman said. "I could say that we are forcing everything over the price, starting tomorrow. It doesn't matter who can pay it." That would, however, significantly exacerbate the division in the country."*

(Malu Dreyer, leader of the German Social Democratic Party

<https://www.spiegel.de/wirtschaft/soziales/klimapaket-malu-dreyer-offen-fuer-hoeheren-co2-preis-a-1288690.html>)

- *"With that in mind, AIM suggests that should a well-designed carbon tax be instituted, the funds should not be used for rebates, but rather as an opportunity to coordinate all these other disparate and oftentimes competing programs. Some of the "lessons learned" could be used to expand opportunities into the transportation sector. These programs could be more efficiently managed through the one source of revenue envisioned in this legislation. More energy jobs will result from a well-designed program.*

Therefore, we urge the legislature to make enactment of a carbon tax contingent on the following changes:

- *All carbon emissions should be subject to the carbon tax, including the electricity sector.*
- *This carbon tax should replace the carbon tax instituted under the state's participation in the Regional Greenhouse Gas Initiative (RGGI).*
- *All current programs that deal with energy efficiency and renewable energy that are funded by ratepayers or taxpayers should be eliminated, including those currently directed at the transportation sector."*

(Robert A Rio, Senior Vice President and Counsel for Government Affairs at Associated Industries of Massachusetts, written testimony submitted in opposition to Massachusetts House bill 3473, 7/18/2017)

3.11. Change is impossible

Summary: *Any measure to reduce emissions effectively would run against current ways of life or human nature and are thus impossible to implement in a democratic society.*

Strategy: Change is impossible points to different fundamental areas of 'carbon lock-in', such as social acceptability, global capitalism, the overwhelming power of interest groups, the limited substitution possibilities of technology, etc. These arguments reify the current state of things and obscure how things have changed in the past. They deny that human societies are capable of collective reflexivity about long-term trade-offs. On the other hand, they have prima facie credibility, as they point to real lock-in and to the acceptability problems of many policies. But, rather than searching for a way out, they suggest to surrender.

Examples:

- *“Anyone who pays much attention to climate change knows the outlook is grim [...] And anyone who pays much attention to politics can assume we’re almost certainly going to botch it. To stop emitting waste carbon completely within the next five or 10 years, we would need to radically reorient almost all human economic and social production, a task that’s scarcely imaginable, much less feasible.”*

(Roy Scranton, <https://www.nytimes.com/2018/07/16/opinion/climate-change-parenting.html>)

- *“Much of the current public discussion concerning future energy transitions is based upon speculation as to the technologies that might be available, their costs, and the rates at which they might be commercialised. Anyone can dream about what the future may hold, but it would seem more prudent to base one’s judgments on what has actually happened in the past. Based on the history of energy transitions, the period from scientific discovery to widespread commercialisation is much longer than is currently estimated by the advocates of rapid decarbonisation. Depending on the technology, the process may take between 30 and 50 years, or much longer where widespread commercialisation depends upon the replacement of long-lived infrastructure. None of the steps in the innovation pathway – research, discovery, testing, demonstration, initial market development or widespread commercialisation – operates according to a fixed or predictable schedule. Governments that seek to impose their policy preferences on the outcomes will face perhaps insurmountable obstacles.”*

(Robert Lyman for the Global Warming Policy Foundation, <https://www.thegwpcf.org/energy-policy-needs-to-transition-to-reality/>)

- *“Despite what a lot of activists say, it is entirely legitimate to invest in oil and gas because the world demands it,” van Beurden said. “We have no choice” but to invest in long-life projects, he added.*

(Ben Van Beurden, CEO Shell, <https://www.nasdaq.com/articles/exclusive-no-choice-but-to-invest-in-oil-shell-ceo-says-2019-10-14>)

- *“Introducing further regulations and controls with ever more intrusive impacts on lifestyles would require enormous political support, which is unlikely to be forthcoming in the current divisive political climate.”*

(Steve Denning, Forbes Columnist, <https://www.forbes.com/sites/stevedenning/2019/07/12/the-one-viable-solution-to-climate-change/>)

3.12. Doomism

Summary: *Any mitigation actions we take are too little, too late. Catastrophic climate change is already locked-in. We should adapt, or accept our fate in the hands of God or nature.*

Strategy: Doomism is a discourse that “all is lost”. It removes one’s agency to address climate change, thereby absolving individuals of responsibility to take meaningful actions. However, it does leave room for a focus on adaptation and resilience, hence protecting individual and community assets while allowing declarations of “standing up to climate change”. Alternatively, it might suggest that we leave our fate to “God’s hands”.

Examples:

- *“We’re doomed,” says Mayer Hillman with such a beaming smile that it takes a moment for the words to sink in. “The outcome is death, and it’s the end of most life on the planet because we’re so dependent on the burning of fossil fuels. There are no means of reversing the process which is melting the polar ice caps. And very few appear to be prepared to say so.”*

(Mayer Hillman, <https://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention>)

- *“What If We Stopped Pretending? The climate apocalypse is coming. To prepare for it, we need to admit that we can’t prevent it.”*

(Jonathan Franzen, New Yorker Comment, <https://www.newyorker.com/culture/cultural-comment/what-if-we-stopped-pretending>)

- *“We don’t really worry about climate change because it’s too overwhelming and we’re already in too deep. It’s like if you owe your bookie \$1,000, you’re like, ‘OK, I’ve got to pay this dude back.’ But if you owe your bookie \$1 million dollars, you’re like, ‘I guess I’m just going to die.’”*

(Colin Jost, Saturday Night Live, 10/13/18 as quoted on <https://www.brookings.edu/research/the-challenging-politics-of-climate-change/>)

- *“As a Christian, I believe that there is a creator in God who is much bigger than us, and I’m confident that, if there’s a real problem, He can take care of it.”*

(US Congressman Tim Walberg, <https://time.com/4800000/tim-walberg-god-climate-change/>)

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