Discourses of climate delay

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Non-technical summary

'Discourses of climate delay' pervade current debates on climate action. These discourses accept the existence of climate change, but justify inaction or inadequate efforts. In contemporary discussions on what actions should be taken, by whom and how fast, proponents of climate delay would argue for minimal action or action taken by others. They focus attention on the negative social effects of climate policies and raise doubt that mitigation is possible. Here, we outline the common features of climate delay discourses and provide a guide to identifying them.

Technical summary

Through our collective observations as social scientists studying climate change, we describe 12 climate delay discourses and develop a typology based on their underlying logic. Delay discourses can be grouped into those that: (1) redirect responsibility; (2) push non-transformative solutions; (3) emphasize the downsides of climate policies; or (4) surrender to climate change. These discourses are distinct from climate denialism, climate-impact scepticism and *ad hominem* attacks, but are often used in combination to erode public and political support for climate policies. A deeper investigation of climate delay discourses is necessary in order to understand their prevalence and to develop inoculation strategies that protect the public from their intended effects. Our typology enables scientists, climate advocates and policymakers to recognize and counter these arguments when they are used. We urge all proponents of climate action to address these common misrepresentations of the climate crisis and to better communicate the dramatic pace of global warming, the gravity of its impacts and the possibility of effective and just mitigation policies.

Social media summary

Discourses of climate delay: redirect responsibility, push non-transformative solutions, emphasize downsides, surrender.

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1. Introduction

As the public conversation on climate change evolves, so too does the sophistication and range of arguments used to downplay or discount the need for action (McKie, 2019; Norgaard, 2011). A mainstay of this counter-movement has been outright denial of the reality or human causation of climate change (Farrell *et al.*, 2019), supplemented by climate-impact scepticism (Harvey *et al.*, 2018) and *ad hominem* attacks on scientists and the scientific consensus (Oreskes & Conway, 2011). A fourth strategy has received relatively little attention to date: policy-focused discourses that exploit contemporary discussions on what action should be taken, how fast, who bears responsibility and where costs and benefits should be allocated (Bohr, 2016; Jacques & Knox, 2016; McKie, 2019). We call these 'climate delay' discourses, since they often lead to deadlock or a sense that there are intractable obstacles to taking action.

Climate delay discourses comprise many separate strategies, some of which have already been identified, such as individualism (Maniates, 2001), technological optimism (Peeters *et al.*, 2016), fossil fuel greenwashing (Sheehan, 2018) and appeals to social justice and economic costs (Bohr, 2016; Jacques & Knox, 2016). They have been examined in surveys and
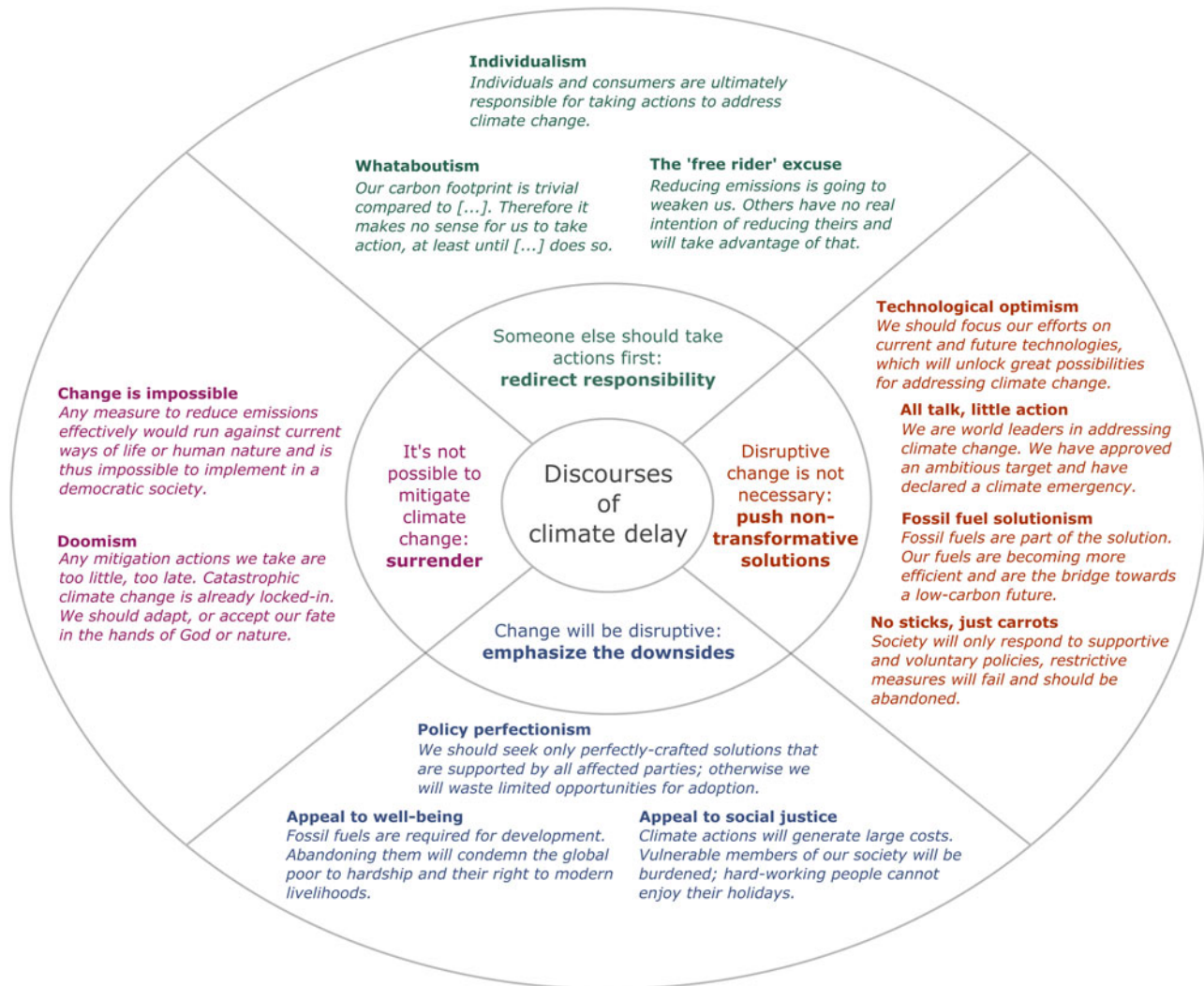
Fig. 1. A typology of climate delay discourses.

community workshops (Bickerstaff & Walker, 2002; Norgaard, 2011), in media sources and advertisements (Bohr, 2016; Jacques & Knox, 2016; Peeters *et al.*, 2016; Sheehan, 2018) and in lobbying activities and political discourses (Bache *et al.*, 2015; Gillard, 2016; McKie, 2019), using methods such as content analysis (Bohr, 2016; Jacques & Knox, 2016), grounded theory (Bickerstaff & Walker, 2002) and the analysis of social deviance (McKie, 2019). Many delay arguments are documented in key works tracing the history of environmental counter-movements in the USA, including the *Merchants of Doubt*, *Deceit and Denial*, *The Triumph of Doubt* and others (Brulle & Aronczyk, 2019; Freudenburg *et al.*, 2008; Markowitz & Rosner, 2003; Michaels, 2008, 2020; Oreskes & Conway, 2011).

Our goal in this article is simply to identify an expansive – albeit not necessarily exhaustive – list of climate delay discourses. In doing so, we follow similar efforts to compile common climate denial claims and provide a reference point for countering misinformation (www.skepticalscience.com). Our secondary goal is to examine the common features and shared underlying logic of delay discourses. This allows us to condense them into a set of overarching strategies that can be more easily recognized and hence challenged. Our approach is deductive: we derive our initial list of discourses from an expert elicitation of the study

co-authors, and then we refine these categories by drawing from a wide range of sources. These include a systematically collected sample of written testimony (submitted to Massachusetts legislature on climate and clean energy legislation in the period 2013–2018), as well as selected news articles and media content on climate policies in Germany, the UK, Norway and the USA. Refer to the Supplementary Materials for a more detailed explanation of our methods and sources.

Climate delay discourses repeatedly occur across sources, actors and contexts. What features do they share? Based on the underlying logic they use to discourage climate action, we characterize discourses of delay as negations of at least one of four questions: (1) Is it our responsibility to take actions? (2) Are transformative changes necessary? (3) Is it desirable to mitigate climate change, given the costs? (4) Is it still possible to mitigate climate change? The varying positions to these fundamental questions allow us to group discourses into four categories that 'redirect responsibility', 'push non-transformative solutions', 'emphasize the downsides' of climate policy, or 'surrender' to climate change (see Figure 1).

This typology assists in the identification of diverse discursive strategies and may suggest tailored responses to each. These questions also cut to some of the most contentious aspects of social and political change; they indicate that discourses of delay often

contain partial truths and may be put forward in good faith. Yet our focus here is to identify the features of these discourses, rather than to attribute underlying motives to those who use them. In the absence of high-quality public deliberation, and in the hands of interest groups fighting against regulation, our concern is that discourses of delay will disorientate and discourage ambitious climate action. This issue thus demands urgent attention and a new set of responses to facilitate a more robust public debate on climate change mitigation (Farrell *et al.*, 2019; van der Linden *et al.*, 2017). In the following sections, we discuss the main features of our typology and the 12 discourses of delay. Attributions for the quotes, as well as a more extensive list of examples, can be found in the Supplementary Material for this article.

2. Redirect responsibility

Who is responsible for taking climate action? Policy statements can become discourses of delay if they purposefully evade responsibility for mitigating climate change. A prominent example is *individualism*, which redirects climate action from systemic solutions to individual actions, such as renovating one's home or driving a more efficient car. This discourse narrows the solution space to personal consumption choices, obscuring the role of powerful actors and organizations in shaping those choices and driving fossil fuel emissions (Maniates, 2001). Blame shifting in this way can be explicit – "Yale's guiding principles are predicated on the idea that consumption of fossil fuels, not production, is the root of the climate change problem" (Yale University). But it can also be implicit, such as in the social media campaign run by BP – "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."

This is not to suggest that individual actions are futile. Rather, a more productive discourse of responsibility would focus attention on the collective potential of individual actions to stimulate normative shifts and build pressure towards regulation. It would also recognize that regulations and structural shifts are complementary to supporting individual behaviour change.

A second widely deployed discourse argues that other countries or states produce more greenhouse gas emissions and thus bear a greater responsibility for taking action. We call this *whataboutism*. Actors advancing this discourse often deploy statistics demonstrating their own small contribution to global emissions, or they point to large emitters such as China – "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 …" (UK politician Nigel Farage). Industries and sectors can also leverage this argument. Transport organizations call for the agriculture sector to take priority actions – "A CO_2-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, board member of a car manufacturer) – while agricultural organizations do the exact opposite – "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" (Irish Farmers Association Twitter account).

An underlying concern in these narratives is the 'free rider' problem: unless all individuals, industries or countries undertake emissions reductions, some will stand to benefit from the actions of others. We see this more explicitly formulated in the *'free rider' excuse* discourse, which claims that others will actively take advantage of those who lead on climate change mitigation – "[I]f we stopped emitting altogether tomorrow, not only it would have no impact but undoubtedly other countries would simply increase their emissions" (Josh Manuatu, president of the Australian Young Liberals). In Donald Trump's words, the Paris Agreement is "less about the climate and more about other countries gaining a financial advantage over the United States."

These three 'redirect responsibility' discourses grapple with the real challenge of building a fair and comprehensive response to climate change. Yet too often they set unrealistic conditions for taking action, implying that others should take the lead before we consider action ourselves. In doing so, they downplay or shirk short-term entry points to climate engagement and policy, including the considerable advantages gained by multiple entities acting together across scales.

3. Push non-transformative solutions

Are transformative changes necessary? Policy statements can become discourses of delay when they promote ineffective solutions and thereby draw attention away from more substantial and effective measures. *Technological optimism* is a prime example, holding that technological progress will rapidly bring about emissions reductions in the future. This discourse has many variations, from touting recent progress in renewable energy deployment, to promoting technological 'myths' that fail to manifest in the promised timeframe and tend to be substituted by new ones (e.g., zero-carbon planes, fusion power and direct air capture of greenhouse gases) (Peeters *et al.*, 2016), to even more vague suggestions that "human ingenuity is infinite," even if Earth's resources are not (Cato Institute commentary). Such optimism and faith may be warranted in some cases, but this discourse is often accompanied by empirically unsupported claims: for instance, that technological progress requires only market-based incentives, rather than regulation; that breakthroughs are imminent ("I am told that electric planes are on the horizon," UK Health Secretary Matt Hancock); or that rapid renewable deployment makes stringent policies or demand reduction measures unnecessary.

A failure to acknowledge disruptive approaches to climate mitigation can also be seen in *fossil fuel solutionism*, the claim that the fossil fuel industry is "part of the solution to the scourge of climate change" (OPEC Secretary General Mohammed Barkindo). This discourse is at the heart of industry pushback against regulation. The American Petroleum Institute funds tens of millions of dollars' worth of advertisements that promote 'cleaner' fossil fuels, while emotively linking these products to everyday activities and human well-being (Sheehan, 2018). This narrative stands in stark contrast to the established evidence – that new freely emitting fossil infrastructures are incompatible with the Paris Agreement's target of 1.5°C warming.

Another key strategy here is to establish narrow definitions of success, so that a country or industry can declare their leadership in the fight against climate change. We call this *all talk, little action*, a discourse that points to recent advances in lowering emissions (often based on relative measures) or in setting

ambitious climate targets, thus downplaying the need for more stringent or new types of additional action (Gillard, 2016). Ambitious long-term target setting may satisfy domestic demands for climate policy, but without concrete instruments, these targets are not guaranteed to translate into action on the ground (Bache *et al.*, 2015). This strategy is apparent, for example, when the UK government responds to a specific parliamentary question on climate policy by arguing, "The UK has a world-leading record in tackling climate change. We are rightly proud of our performance against our carbon targets … We remain firmly committed to tackling the threat of climate change," while not providing any direct response to the question asked.

On a more ideological level, many actors appear to shy away from restrictive policies altogether. A discourse of *no sticks, just carrots* argues that we should only pursue voluntary policies ('carrots'), in particular those that expand consumer choices, such as funding high-speed rail to substitute flights. More obviously restrictive measures ('sticks') such as taxes or a frequent-flyer levy are deemed too 'paternalistic' and overburdening for citizens. This discourse argues that such measures should be abandoned, despite the complementarity between 'carrots' and 'sticks' and the need for both approaches under strong climate policy. A good illustration is the German Free Democratic Party's strategy on climate action, which emphasizes that "greater efficiency reduces energy, resource use, and emissions, while improving quality of life," but refuses to "prescribe sustainable behaviour through regulations."

The push towards incremental solutions tends to avoid all options that are most threatening to existing power structures and practices. In doing so, these discourses leverage narrow definitions of success, positive framings and entrepreneurial values above transformative efforts and binding standards. When not confronted with scientific deliberation and debate on appropriate policy options, they provide cover for ongoing unsustainable activities and hinder strong near-term climate action.

4. Emphasize the downsides

Given the costs, is it desirable to mitigate climate change? Policy statements can become discourses of delay when they emphasize the downsides of climate action and imply that these carry an even greater burden for society than the consequences of inaction. This fallacy is at risk of occurring in many contemporary discussions on the potential social effects of climate policies, such as on employment, prospects of foregone consumption, general prosperity and 'ways of life'. In particular, this framing may resonate for low-income members of society, marginalized communities and developing nations.

The *appeal to social justice* moves social impacts to the forefront of policy discussions, framing a transition to renewable energy as burdensome and costly to society: "we can't allow climate protection to jeopardize prosperity and jobs" (German Minister for Economic Affairs and Energy Peter Altmaier). Such issues are a legitimate and crucial aspect of climate policy deliberation, so one should carefully address these claims. For instance, are other aspects of injustice addressed in such discourses, such as failing to act on climate change? Are the potential benefits of a transition disregarded, such as improved public health, regional development and employment opportunities, or greater community resilience? A discourse of delay would fail to do so on both counts, focusing attention only on the short-term downsides and costs. Climate policies can also be falsely framed as

regressive. For instance, it has been claimed that an aviation tax would "hammer hard-working families and prevent them from enjoying their chance to go abroad" (UK Treasury minister Robert Jenrick), despite this being one of the most progressive of all potential green taxes on consumption.

The *appeal to well-being* manifests an extreme version of this discourse. It claims that climate policy threatens fundamental livelihoods and living standards: "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)" (David J. O'Donnell, Associate Director, Massachusetts Petroleum Council). This is clearly overstating the disruptive nature of an orderly transition process, and it is linked to ongoing efforts to situate fossil fuels as the irreplaceable foundation of human well-being and poverty reduction – "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, President, Copenhagen Consensus Centre). Organizations from Peabody Energy to the influential Southern Baptist Convention have leveraged such arguments to downplay or deny the need for global climate action (Supplementary Information, Section 3.9).

The consequence of these concerns is a highly conservative approach to climate policymaking – *policy perfectionism*. Here, one argues for disproportional caution in setting ambitious levels of climate policy in order not to lose public support – as when German Minister for Economic Affairs and Energy Altmaier defends a low carbon price on the basis that "we also have a responsibility for social peace in this country." Again, this might be a sensible claim, but it becomes a delay strategy when the advocate forgoes the need for outreach work and a public deliberation strategy that could reach consensus on just policies and build support towards more ambitious solutions. Emphasizing the downsides of climate action in these ways thus deflects attention from the harm they avoid, while denying or ignoring the potential to build inclusive policies that capture social benefits and reach wide acceptance.

5. Surrender

Is climate change mitigation actually feasible? Policy statements can become discourses of delay if they raise doubt that mitigation is (still) possible, pointing to seemingly insurmountable political, social or biophysical challenges. There are two ways to develop this final narrative. First, one could claim that strong climate policies will impinge on society, politics or human nature to the extent that their final implementation is doomed to failure. We call this *change is impossible*, a discourse that reifies the current state of things and denies the ability of societies to organize large socio-economic transformations: "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" (*New York Times* opinion article). Rather than searching for a way through these difficulties, *change is impossible* suggests surrendering or adapting to climate change. It can also support non-transformative discourses, drawing the solution focus away from stringent policies towards technology and market-based measures with minimal interventions, even if these are ultimately insufficient to address the scale of the problem.

Doomism further argues that any actions we take are too little, too late. Catastrophic climate change is already locked-in: "The

climate apocalypse is coming. To prepare for it, we need to admit that we can't prevent it" (*New Yorker* opinion article). Such statements evoke fear and can result in a paralysing state of shock and resignation (Hulme, 2019). This discourse implies that mitigation is futile and suggests that the only possible response is adaptation – or in religious versions, by trusting our fate to "God's hands". As with many other discourses of delay, the surrender category does not favour the difficult work of building climate engagement and deliberating over effective solutions.

6. Conclusion

The discourses we identify here can be compelling. They build on legitimate concerns and fears as societies move closer to addressing climate change. We argue that they become delay arguments when they misrepresent rather than clarify, raise adversity rather than consensus or imply that taking action is an impossible challenge.

Our typology draws out the abstract logic and discursive structure of delay discourses, but in practice, they often build on combinations of arguments. An important illustration is when population is put forth as an overriding driver of climate change. This draws from the notion that CO_2 emissions trajectories are essentially fixed in the developed and developing world (*change is impossible*), while focusing attention on rapidly growing populations, usually in the latter (*whataboutism*). Delay is introduced because practical and desirable steps to reduce emissions immediately (e.g., driving smaller cars over shorter distances) are overlooked in favour of an implied programme of global population reduction, while simultaneously obscuring the highly unequal distribution of climate responsibility worldwide. The sophistication of discourses of delay should therefore not be understated, and new strategies are developing all the time. As prior research shows, they are also consistent with – and are repeated alongside – climate denial and *ad hominem* frames (Jacques & Knox, 2016).

This article identifies, describes and categorizes discourses of delay. Our analysis does not reveal their adverse effects on climate politics at all levels, from regions, nations and communities to smaller social institutions such as schools, churches and households. Nor can we judge how often they are used in these contexts and by whom. These are important avenues of research, requiring systematic analyses that draw on a variety of document sources and methods that make use of traditional content analysis, as well as new developments in computational text mining. Furthermore, it is critical to investigate how compellingly they influence behaviours and policy preferences.

How should scientists, climate advocates and policymakers respond to discourses of climate delay? The recent literature argues that pre-emptively warning the public about misinformation can help build resistance and 'inoculate' against climate denial (Farrell *et al.*, 2019; van der Linden *et al.*, 2017). Our characterization and typology of climate delay discourses is a further step in this direction. It will be a continuing challenge to track new manifestations and to communicate these to the public. But this alone will be insufficient. Given the complex normative grounds on which they are founded, overcoming discourses of climate delay will require strengthened public deliberation processes that highlight responsibility, identify appropriate solutions, address social justice and ultimately show that it is both possible and desirable to mitigate dangerous climate change.

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