

Why focusing on “climate change denial” is counterproductive

Christian Bretter^{a,1}  and Felix Schulz^b



At the end of September, David Malpass, the president of the World Bank, was heavily criticized after failing to acknowledge anthropogenic climate change [henceforth called climate change (1)]. Although he later apologized for and revised his remarks, they sparked a renewed public debate on the existence of climate change deniers and their impact on our transition toward a more sustainable future (2).

We believe that the dichotomous view of climate change “deniers” and climate change “accepters” is not helpful. This way of framing the debate only stymies our path to a zero-carbon future. It does so for three primary reasons. First, it creates an inaccurate picture by overstating the share and importance of climate change deniers for tackling climate change. Second, a focus on climate denialism divides and polarizes society, further preventing constructive engagement with different opinions. Third, it distracts us from concentrating on the more pressing question: *how* we should tackle climate change, not *if*. Once we focus on the *how*, we can begin to understand that support for different solutions to tackle climate change may be contingent on people’s preference for individual freedom. With this understanding in mind, we can offer a constructive path forward.

Overstating Climate Denialism

To a large extent, media coverage, including social media, informs our perceptions on the newsworthy events in the world (3). For reasons of economic survival, news outlets focus on what they believe appeals most to their readership (4). Climate change denial, particularly that coming from individuals or organizations with power, elicits strong negative or positive reactions in people, resulting in more viewers/readers. For this reason, the media may report on climate change denial

Focusing on “climate denialism” is a distraction. We need to stop spending so much time on *if* we should tackle climate change and focus more on *how* we should. Image credit: Dave Cutler (artist).

Author affiliations: ^aInstitute for Transport Studies, University of Leeds, Leeds LS2 9JT, UK; and ^bLeeds University Business School, University of Leeds, Leeds LS2 9JT, UK

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¹To whom correspondence may be addressed. Email: c.bretter@leeds.ac.uk.

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more often than on nuanced debates around effective solutions to climate change.

We certainly do not claim that climate change deniers do not exist or that they do not have a negative impact on our transition to a more sustainable world. Climate change deniers do exist and do have influence, particularly in countries such as the United States or Australia, where they're prominent (5). However, we do mean to say that news coverage, perhaps inadvertently, makes us believe that there are more climate change deniers than there really are. On the individual level, the share of climate change deniers has been decreasing continuously for the past decade (6). On the national level, 131 countries have adopted net-zero pledges (7). Although some of these pledges are not legally binding and may be seen as "green-washing," this still shows that the issue of climate change denial has, in practice, moved to the background and that both individuals and governments overwhelmingly see the need to fight climate change.

Preventing Constructive Discourse

Besides being too simplistic, our current practice of talking about climate change deniers and accepters has negative psychological consequences (8), with repercussions for our public debates. Categorizing others as deniers polarizes society. Those who are accepters have negative preconceptions of deniers and vice versa (9). These cognitive biases make individuals prefer to be surrounded by people with their own view (e.g., accepters) and avoid people of other views (e.g., deniers). More importantly, these biases dissuade individuals from listening to each other (10), thus reducing the chances of a constructive public discourse. A discourse that centers around a dichotomy of climate change deniers and accepters creates a psychological barrier to progress in which, from the outset, individuals with different worldviews do not want to engage with each other. Such engagement is essential to making progress in our transition toward a more sustainable society.

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Focusing on how we tackle climate change must be the highest priority, as should the most salient distinctions among policy choices meant to address the problem. Among those distinctions is the question of how policies affect the real or perceived level of retained freedom of choice for societal actors, whether individuals or companies.

Directly prohibiting behavior through legislation, such as banning the sale of fossil-fueled vehicles (FFVs), for example, curtails the freedom of companies because they can no longer produce FFVs. It also restricts the freedom of individuals because they will, at some point, no longer be able to buy FFVs. Using market mechanisms such as carbon permits retains more freedom for companies (and by extension consumers) because they can alter their carbon budget through trading, thus retaining the option of producing FFVs. Providing

product-related information, such as the emissions associated with a vehicle, and relying on the consumer to make the "greener" purchasing decision retains even more freedom for both companies (they can continue to produce FFVs) and consumers (they can decide what to buy). As these examples illustrate, we can categorize the ways proposed to tackle climate change along a continuum of retained individual freedom.

Individual Freedom and Worldviews

Why is such categorization important? We have learned from cultural cognition that individuals have different worldviews and that these worldviews correspond to preferences of individual freedom (11). By worldviews, we mean outcomes in society that an individual believes to be desirable along with the ways of achieving those outcomes. Whereas people who are individualists believe that individual freedom is paramount and prefer a society in which everyone acts in their own interest, communitarians prefer a society where collective needs are prioritized, even if that means restricting individual freedom. Perhaps unsurprisingly, communitarians tend to think tackling climate change is more important (12), advocate more for demand control (13), and tend to behave more pro-environmentally (13–15), compared with individualists.

In other words, just as solutions to tackle climate change differ in the extent to which they retain individual freedom, so too do individuals differ in their preferences for individual freedom. These worldview-dependent preferences for individual freedom directly resonate to differing degrees with the retained freedom of proposed climate change solutions—and by extension, influence the chances of these solutions being implemented. Individual freedom is not the only factor that matters for such preferences, but it is one lens through which to examine them.

A Constructive Path Forward

Having different preferences for climate change solutions is not the same as denying the urgency of climate change. It is a disagreement over how to most effectively tackle climate change based on what aligns best with existing worldviews.

With this in mind, we can offer a constructive path forward in hopes of accelerating our transition to a zero-carbon future.

First, we need to stop focusing our attention on climate change denialism; it does not offer any solutions to tackling climate change. It's a daunting challenge to persuade those who, to this day, deny the existence of climate change despite the overwhelming scientific evidence—a challenge perhaps not worth the requisite time and resources. Our efforts should instead be focused on better understanding the impact of solutions to tackle climate change on the environment and society. This will facilitate the creation of knowledge of what works and what does not and will therefore aid our transition.

Second, we require more research on the implications of proposed solutions for retained individual freedom. Conceptions of freedom of choice differ, for example. Therefore, we need to better understand the extent to which freedom of market actors is retained by climate solutions and, more importantly, how this resonates with adherents of different worldviews. Once we do that, we will understand

how the relationship between the preference for climate solutions and worldviews unfolds and improve our knowledge of public acceptance of climate solutions.

Third, on a personal level, we need to be aware of our own worldviews to reduce their influence on our climate solution-related judgements. One important difference across worldview groups is the preference for freedom. As different policy approaches include different degrees of retained freedom, people tend to be biased in favor of some and against other policy types. Such biases make it challenging to truly recognize the potential of solutions that seem to contradict our worldviews. By acknowledging how our worldviews influence our own judgements, we can mitigate their influence and become more objective in our evaluations of climate change solutions.

Fourth, understanding how worldviews influence judgement could inform our knowledge of how worldviews themselves are formed and change. What determines people's individualistic worldviews? And how can individualists, in times of a collective crisis, be persuaded that, in some instances, only collective action can yield the desirable outcome (i.e. widespread well-being for world's citizens)? Future research should examine determinants of worldview development and change in relation to the climate crisis.

It's time to give climate "deniers" less attention in the media, in our own private conversations, and in academic discourse. We should instead concentrate on establishing shared responsibility to act on the climate crisis and consider the role of ingrained worldviews on reaching a consensus. Only then will we be able to carry out effective solutions.

1. D. Gelles, A. Rappeport, World Bank leader, accused of climate denial, offers a new response. *New York Times* (2022, September 22). <https://www.nytimes.com/2022/09/22/climate/malpass-world-bank-climate.html>. Accessed 5 October 2022.
2. F. Harvey, Head of World Bank under pressure after White House condemns his 'climate denial' comments. *The Guardian* (2022, September 25). <https://www.theguardian.com/environment/2022/sep/25/head-of-world-bank-under-pressure-after-white-house-condemns-his-climate-denial-comments>. Accessed 5 October 2022.
3. F. C. Moore, N. Obradovich, F. Lehner, P. Baylis, Rapidly declining remarkability of temperature anomalies may obscure public perception of climate change. *Proc. Natl. Acad. Sci. U.S.A.* **116**, 4905–4910 (2019).
4. E. S. Herman, N. Chomsky, *Manufacturing Consent: The Political Economy of the Mass Media* (Vintage Books, New York, 1994).
5. M. J. Hornsey, K. S. Fielding, Understanding (and reducing) inaction on climate change. *Soc. Issues Policy Rev.* **14**, 3–35 (2020).
6. M. J. Hornsey, E. A. Harris, P. G. Bain, K. S. Fielding, Meta-analyses of the determinants and outcomes of belief in climate change. *Nat. Clim. Chang.* **6**, 622–626 (2016).
7. N. Höhne *et al.*, Wave of net zero emission targets opens window to meeting the Paris Agreement. *Nat. Clim. Chang.* **11**, 820–822 (2021).
8. C. Bretter, K. L. Unsworth, M. A. Robinson, Watching the mimickers: Mimicry and identity in observed interactions. *J. Exper. Psych. Appl. Advance online publication*. 10.1037/xap0000462 (2022).
9. H. Tajfel, J. C. Turner, "An integrative theory of intergroup conflict" in *The Social Psychology of Intergroup Relations*, W. G. Austin, S. Worchel, Eds. (Brooks-Cole, Monterey, CA, 1979), pp. 33–47.
10. P. R. Miller, P. J. Conover, Why partisan warriors don't listen: The gendered dynamics of intergroup anxiety and partisan conflict. *Pol. Groups Ident.* **3**, 21–39 (2015).
11. M. Siegrist, A. Bearth, Worldviews, trust, and risk perceptions shape public acceptance of COVID-19 public health measures. *Proc. Natl. Acad. Sci. U.S.A.* **118**, e2100411118 (2021).
12. P. C. Stern, T. Dietz, T. Abel, G. A. Guagnano, L. Kalof, A value-belief-norm theory of support for social movements: The case of environmentalism. *Hum. Ecol. Rev.* **6**, 81–97 (1999).
13. F. Chuang, E. Manley, A. Petersen, The role of worldviews in the governance of sustainable mobility. *Proc. Natl. Acad. Sci. U.S.A.* **117**, 4034–4042 (2020).
14. C. Bretter *et al.*, Don't put all your eggs in one basket: Testing an integrative model of household food waste. *Resour. Conserv. Recycl.* **185**, 106442 (2022).
15. C. F. Clark, M. J. Kotchen, M. R. Moore, Internal and external influences on pro-environmental behavior: Participation in a green electricity program. *J. Environ. Psychol.* **23**, 237–246 (2003).