The "save the earth!" narrative creates a narrative trap for climate advocates

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The phrase "Save the Earth!" encapsulates a common narrative among climate advocates, one of environmentalists battling polluters to save Mother Earth from being despoiled. In this narrative the moral boundaries are clear and the stakes are apocalyptic, leaving no room for doubt or compromise. Nonetheless, the narrative has not been an effective one for climate activists. Most importantly, it does not lay out a path for overcoming the deeply institutionalized barriers to transforming a large sociotechnical system. Climate advocates need a new narrative, one that continues to stress decarbonizing the economy but also emphasizes adapting to climate change that is already in the pipeline and ensuring a just transition that does not harm the most vulnerable parts of the population nor frustrate the aspirations of people around the world who seek better lives for themselves. The burgeoning field of just energy transitions encompasses these concerns, but it too needs a new story, one that avoids the narrative traps that have hampered climate policy more generally.

KEYWORDS

climate change governance, climate justice, climate policy, climate politics, environmentalism, narrative analysis, save the earth

Introduction

Environmentalists have been telling the wrong story about climate change and, in doing so, have backed themselves into a corner. The components of that story date back to early themes in post-war environmental narratives. The phrase "Save the Earth!" encapsulates the story, quickly bringing to mind a heroic narrative of valiant environmentalists battling evil polluters to save Mother Earth from being despoiled. In this narrative the moral boundaries are clear and the stakes are apocalyptic, leaving no room for doubt or compromise. How can anyone not want to save the earth? Nonetheless, the narrative has failed to provide a conceptual path that would aid advocates in resolving policy deadlocks over climate change nor does it aid in creating a winning political coalition that could overcome the deeply institutionalized barriers to transforming large sociotechnical systems. It is past time that climate advocates abandoned their efforts to save the earth and instead re-focused on caring for the people on it: those who will suffer the effects of climate change itself and of measures to reduce greenhouse gas emissions. This new focus must of course continue to decarbonize the economy, but should also focus on adapting to climate change that is already in the pipeline and ensure that efforts to decarbonize do not harm the most vulnerable parts

of the population nor frustrate the aspirations of people around the world who seek better lives for themselves. Some government officials and climate activists have recently put a greater emphasis on adaptation and just energy transitions, new narratives focused on climate justice, but those narratives are far from complete.

Why study narratives?

When people advocate for a policy, they tell a story, a narrative. Sometimes they tell the story explicitly, clearly labeling the heroes, villains, victims, and the narrative arc. On other occasions the narrative is implicit, something the analyst must tease out of a policy proposal. Those stories are not mere window dressing or *post-hoc* rationalizations. As Mayer (2014, p. 7) puts it, "We make sense of our world by the stories we tell about it." Shared narratives perform these cognitive functions at a collective as well as individual level. "Through shared narratives, a community can not only come to recognize its common self-regarding (egoistic) interests in such matters as security or protecting the commons but can also construct common altruistic interests in the fate of ideas, and common patriotic interests in the fate of the community itself" (Mayer, 2014, p. 8).

Groups use narratives to frame policy problems and their possible solutions. Framing a problem draws attention to some aspects of it and deflects attention from others through "underlying structures of belief, perception, and appreciation" (Schön and Rein, 1994, p. 23). Stone (2012, p. 252–253) likens policy frames to their physical analogs; "A frame is a boundary that cuts off parts of something from our view while focusing our attention on other parts." If advocates are able to get political elites or large organized groups to accept their preferred framing of an issue, they stand a much better chance of getting their ideas enacted into policy (Mayer, 2014, 46-48; Stone, 2012, p. 252–253).[1] To be sure, there is no simple one-to-one relationship between someone or a group espousing a narrative or a frame and advocating for a specific policy. That said, shared narratives help advocates to think through their positions and communicate them to a wider audience.

Narratives can motivate individual and collective action, but that does not mean that they are socially beneficial. Some groups may promote narratives and frames that are factually false, politically or socially destructive, or both (Benford and Snow, 2000, p. 620; Mayer, 2014, p. 70, 73). In addition, promoters of a narrative may be mistaken about how effective it will be in bringing about the changes they wish to see. Popular or dominant frames can turn out to be dysfunctional for the very groups that advocate for them. They can trap

them into a political posture and set of policy proposals that frustrate their ability to achieve their goals. This observation runs contrary to most of the literature, which assumes that, even for false or destructive narratives, those who promote them know what they are doing and, if they are successful in getting many people to adopt their narrative, will get the political or policy outcomes that they seek. My argument is different. The narrative that comes from the dictum to Save the Earth puts climate policy advocates into a corner. They have no realistic policies that can stop climate change in the short term, that can forestall a climate emergency, and, at the same time, their narrative also creates barriers to forming political coalitions that could at least make progress in slowing down or adapting to climate change. There is no simple causal relationship between espousing a particular narrative and advocating for a specific policy. That said, narratives are a crucial means for advocating for policies, recruiting allies, or attacking opponents. A dysfunctional narrative can create a trap for its advocates. To escape this trap, environmentalists need more than new policies; they need a new story.

Apocalyptic narratives on climate

As with any major contentious policy issue, there are competing narratives and frames about climate change. For example, concerns about climate justice and a just energy transition have recently gained greater exposure in climate debates. There are major conceptual and methodological problems to stating that a narrative is "the" or even "the dominant" narrative about climate change. About whom is one speaking? Possible members of that population could include the leadership of environmental advocacy groups, elected government officials, civil servants, scientists in government, businesses, academia, or think tanks, or individuals who self-identify as environmentalists. Even if one restricts that analysis to organized environmental groups, that population is difficult to delimit. To my knowledge, there is no census of such groups just in the United States, not to mention worldwide. Also, climate advocates can articulate their narratives through a wide variety of media.

Nonetheless, the Save the Earth narrative discussed below remains a major component of climate discourse. My analysis delves into the historical roots of this narrative but will also include examples to demonstrate its current use, including by groups involved in or commenting on the recent Conference of the Parties in Glasgow. I have chosen examples below from groups and individuals who have significant media exposure. They are not a representative sample of climate advocates nor is their narrative is the only one circulating in climate debates. Rather, prominent participants in climate debates do use this narrative and the implications of adopting this narrative work against the goals of the groups that use them.

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1 Scholars utilize frames in a variety of other ways, e.g., Benford and Snow (2000) and Chong and Druckman (2007), but the underlying concepts are similar.

The Save the Earth narrative has three components; Save the Earth (of Planet or Climate), no choice, and political will. Together, these components tell a story that works against the goals of its expositors. The Save the Earth narrative on climate fits squarely in the tradition of apocalyptic environmentalism, a strain of environmental thinking that dates back to at least the early 1960s (Kirk, 2007, p. 11–12; Killingsworth and Palmer, 1996). The most successful early author of such a narrative was Rachel Carson, whose best-selling book *Silent Spring* excoriated the over-use of pesticides, especially DDT. In her first chapter, "A Fable for Tomorrow," she describes a farming community somewhere in America that had once enjoyed a beautiful and bountiful environment but had, due to the use of pesticides, come to ruin, with the loss of livestock, the rise of human disease, and the death of birds that led to the silent spring. "This town does not actually exist,… I know of no community that has experienced all the misfortunes I describe. Yet every one of these disasters has actually happened somewhere,… A grim specter has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know" (Carson, 1962, p. 3). By the time Carson's book came out, the public was primed to accept the notion that humanity could affect the entire global ecosystem: "Above all, the language resonates with the fear of the end of the world, which… takes on a new reality in the shadow of nuclear weaponry" (Killingsworth and Palmer, 1996, p. 30). Carson's book was a policy as well as literary success. Within a few years of its publication, studies from prestigious scientific sources confirmed her critique of DDT and government regulation sharply restricted its use by the end of the decade (Oreskes, 2010, ch. 7).

Contemporary apocalyptic climate narratives abound and their expositors are very high-profile. In 2008 former Vice President Gore (2008) gave a speech titled "A Generational Challenge to Repower America" and in the first paragraph outlined the stakes of the issue: "The survival of the United States of America as we know it is at risk. And even more—if more should be required—the future of human civilization is at stake." Climate activist McKibben (2012), in an article in *Rolling Stone*, put the issue in very similar terms, saying that people "remain in denial about the peril that human civilization is in." Hansen (2009), a well-known climate scientist, put the discourse right into the subtitle of his recent book: *Storms of my Grandchildren: The Truth about the Coming Climate Catastrophe and our Last Chance to Save Humanity*. All three of these individuals enjoy extensive media coverage, giving them and their ideas wide exposure. Between 2008 and 2019 Hansen and McKibben showed up in hundreds of newspaper articles per year and Gore in thousands.[2] In the narratives they promoted, the

stakes for climate change could not get higher, despite studies showing that apocalyptic framing is counter-productive in terms of mobilizing political and public support for strong policies to deal with the problem (Boykoff, 2011, p. 16 and sources cited therein). Organizational uses of the phrase are ubiquitous. For example, Greenpeace's 2018 Annual Report (https://www.greenpeace.org/usa/sites/2018-annual-report/) talked about a major fundraising Gala in Oakland, California as being "at the place where our iconic actions to save the planet begin." They often crop up around the time of international climate negotiations. In the lead-up to the Paris Conference of the Parties negotiations on climate change in 2015, Al Gore's Climate Reality Project (2015) created the World's Easiest Decision website, which used humorous interactive videos to boil the complexities of the climate issue to one question: "would you choose to not save the Earth or save the Earth?"

The second element that makes up this narrative asserts that the government has "no choice" but to address the climate problem with strong policies. The president of the Environmental Defense Fund (Environmental Defense Fund, 2012), commenting on a White House meeting on energy and climate, said "we believe the situation is now urgent enough that Washington has no choice but to act." A Friends of the Earth (2011) press release about the Keystone XL pipeline claimed that, because of its many potential problems, "President Obama has no choice but to reject the pipeline." The National Resources Defense Council, also commenting on the pipeline (National Resources Defense Council, 2011), stated "the president will have no choice but to reject the pipeline as not in the national interest."

The final element of this narrative is the notion of political will. An EDF fact sheet (Environmental Defense Fund, 2010) on a global climate fund stated that donor countries to the fund can raise the money "if only we muster the political will to put the right incentives in place." Greenpeace (n.d., Introduction), in talking about the possible solutions to global warming, stated "Solutions to global warming do exist—the clean energy alternatives and the energy saving processes only require political will to be implemented." The Clean Energy Business Network of the Pew Charitable Trusts (n.d.) approvingly quoted a businessman as saying that the United States can lead in the new energy economy: "We need only the political will to make it happen."

Together, these three phrases form the core of a harrowing narrative:

1. Humanity can and should *Save the Earth* (or the *Planet* or the *Climate*);
2. Humanity has *no choice* but to take drastic action;
3. All we need is the *political will* to succeed.

This narrative, one of extraordinary urgency, posits a threat to our very existence and in doing so seeks to push all other concerns to secondary status. It also implies that a solution, one

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2 Search in the Newsbank Access World News database, with each name in quotation marks plus "climate" from 2008 to 2019. The totals for that period were 7,256 for Hansen, 8,487 for McKibben, and 46,050 for Gore. In the Gore search I excluded "Albert Gore Sr".

that preserves a civilizational status quo, is readily at hand and that all that prevents countries from utilizing that solution is the unwillingness of government officials to make the tough, but obviously correct, decisions to incur short-term costs for vastly greater long-term benefits. In Hajer and Laws (2008) terms, this "ensemble of concepts and categorizations" gives meaning to the phenomenon of climate change, but what is that meaning? How does it bring order to an ambiguous and complex reality? How does this narrative, and the broader discourse it expresses, work to emphasize some courses of action and exclude others? No single element causes its expositors to advocate particular policies in some deterministic way, but the three of them taken together seek to structure climate policy debates narrowly. Consider first each of these narrative elements individually.

Save the earth!

In a literal and scientific sense, the phrase "save the earth" and its variants have no substance. The earth itself is in no danger and neither is the climate. As long as there is an earth, there will be a climate. A more generous reading of "save the climate" could mean "save the current climate," which provides a relatively benign environment for human beings. Still, "save the climate" is used so interchangeably with "save the earth" or "save the planet" that the phrase deserves a deeper probing. Behind that phrase lies assumptions about the stability of climate, and of nature itself, and what the human role should be in altering or preserving that stability.[3] There is a limited range of meanings that the phrase can have and it is so deeply rooted in the environmental movement that exploring its history can help us understand the meanings it can convey to speakers and listeners alike. Since the phrase has no literal meaning, then we need to inquire about possible non-literal, and especially metaphorical, meanings of it.

In part, the phrase is ceremonial, principally as a means of social positioning. Our language is peppered with such phrases, such as saying "bless you" when someone sneezes. The speaker need not be religious, even though this phrase contains a religious term. Instead, it expresses a form of social solidarity by conveying empathy for those who are ill. "Save the Earth" can serve a similar function, with speakers proclaiming themselves to be among those who care about protecting the environment. The mere fact that some people use the phrase is not enough to pigeon-hole them into a particular stance on climate change or environmentalism more generally, as the constraining narrative requires the other two phrases as well.

Still, why that phrase? Why did "Save the Earth" come to be the marker that designates the environmentally conscious? The phrase is best understood as a metaphor, so how does this

metaphor lead us to frame climate change? The answers to those questions lie in the history of the phrase and in broader trends of discourse within environmentalism about humans' relationship with nature. These trends represented a convergence of ideas that took place from the 1950s to the early 1970s that were gaining currency in scientific, political, and popular arenas. The central idea in these trends, and in the environmental movement that was growing with them, was that the natural systems in which we lived were fragile and that humanity had acquired the ability to disrupt them. This notion ran counter to people's ordinary experience of these systems, such as the weather. Hurricanes defy control and dwarf human efforts and scale. They threaten us, we do not threaten them.

Prior to World War II, most climate scientists accepted a model of the climate that emphasized stability. While of course the climate had changed in the geological past, hence the Ice Ages, on shorter timescales it was not going to be pushed around by human activity. Even if there were short-term perturbations to the climate, such as those from large volcanic eruptions, the climate would soon settle back to its old equilibrium. But after the war that notion began to change, as some climate scientists started to adopt a model that emphasized the vulnerability of climate to human influences (see Weart, 2003, chapter 3 for details of that change and the scientific developments that led to it). Though there was no one moment when an entire scientific community suddenly changed its beliefs, a comment by Roger Revelle in a 1957 paper indicated the beginning of that process of change, stating that human emissions of CO_2 constituted a "large scale geophysical experiment" on the earth's climate (quoted in Weart, 2003, p. 29–30).

Revelle made this comment in the midst of the Cold War, when conflict with the Soviet Union threatened nuclear Armageddon. In addition, concerns over threats to nature from human activity, and especially from advanced technology, were not confined to scientific papers; political elites shared and voiced them. For example, David Lilienthal, the chairman of the Atomic Energy Commission, during a 1949 commencement speech asked the graduates if they thought new technology was good or evil. In addition to the problems of nuclear weaponry, Lilienthal made it clear that the use of new technology was affecting every part of the graduates' lives, though in the end he gave an upbeat answer to his question (Huebner, 2010, p. 6–7).

Popular culture, especially science fiction, also questioned the magnitude and wisdom of humanity's altering of the earth. In a review of science fiction movies of the 1950s, Huebner (2010) makes the case that such films were a means of exploring questions about advanced technology's effects on civilization and nature. The films did not offer a simple answer, reflecting the film-makers' ambiguity about the questions. The popularity of the films no doubt mostly came from their entertainment values, their sensationalism, and their special effects, if not always their skill at telling a story. Nonetheless, he argues that movie

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3 Boykoff et al. (2010) have an extensive analysis of climate stability as a framing of the climate issue.

audiences were exposed routinely to stories about humanity profoundly disrupting natural systems (p. 17–21).

In the 1950s, environmental organizations moved more into the policy arena and raised a public debate about how humanity interacted with nature (Gottlieb, 1993, p. 36–46). The Sierra Club intervened in the construction of large dams in the American southwest. Their goal was to protect specific ecosystems, but their actions took place at a time when environmental writers were publishing more sweeping analyses of environmental problems, arguing that the issue was larger than simply deciding where to put, or not, the next dam (Gottlieb, 1993, p. 36–38).

The idea of a fragile climate that Roger Revelle had expressed in 1957 solidified in the scientific community by the middle of the 1960s. Weart (2003, chap. 3) designates a scientific conference on climate change in August 1965 as a time when climate scientists widely agreed that the climate was delicate and that human actions could substantially alter its current equilibrium. The notion was not confined to practicing scientists. A month before the 1965 climate conference Adlai E. Stevenson, the U.S. ambassador to the United Nations, gave his farewell address to the U.N. Economic and Social Council. In that address he used a spaceship analogy: "We travel together passengers on a little spaceship, dependent on its valuable reserves of air and soil" (quoted in Caldwell, 1972, p. 147). Stevenson's views tell us that at least some policy elites shared the notion of fragile ecosystems under threat from human action and were searching for an effective manner of expressing it. Barbara Ward, a prominent British environmentalist who drafted the speech for Stevenson (Davis, 1967, p. 500), was at the time was completing a book with the title *Spaceship Earth* (Ward, 1966, p. 15).

By the end of the 1960s a visual symbol for spaceship earth began appearing in popular publications, photographs of the earth taken from space by the Apollo astronauts. Some commentators claimed that the famous pictures, Earthrise and the Blue Marble, were a principal cause of much greater environmental consciousness among the general public (e.g., World Commission on Environment Development, 1987, p. 1; Goldberg, 1991, p. 53–54; Kirk, 2007, p. 40–42). It is easy to see how environmentalists could be enthralled with the photos and imagine that the broader public was as well. They were massively publicized by the media and are, as things unto themselves, quite striking, with the earth as a small blue, green, brown, and white ball floating in an immense black void. The images *could* convey a sense of fragility and vulnerability, but the authors of these claims about the effects of the photo provided no evidence about the reactions of the public to it. Cosgrove (1994) and Jasanoff (2004) point out that there were in fact contested interpretations of these photos, which arose out of the widely different cultural and political contexts in which people viewed them.

Poole's (2008, chap. 8) study of these photographs places them in their historical context, showing how some audiences were primed to see them and how different movements and political entrepreneurs sought to use them. However much the earth photos may have popularized the notion of Spaceship Earth and emphasized its isolation and fragility, they clearly did not give rise to the concept since the photos became public several years after the concept was in wide use among scientists, policy makers, and environmental advocates and writers. But the photos did provide an evocative image for spreading the idea. The idea of "Save the Earth" or "planet" or "climate" is an invocation to protect the environment that makes human life on earth possible and the image of the earth floating in the void drives home the point that we have nowhere else to go. Such claims constitute the highest stakes imaginable. The timing of these photos, between 1968 and 1972, could not have been better: That period saw explosive growth of the environmental movement, including the first Earth Day, along with the passage of new laws and the creation of new government agencies dedicated to environmental protection (Poole's, 2008, p. 152–158). The photos "tapped into a ready-made agenda" (Poole's, 2008, p. 159). Advocates of saving the earth finally had stunning photographs of what they wanted to save.

But if the earth is small and vulnerable, people are smaller and more fragile still. So how can they imagine that they can save the earth? The phrase begins to make sense if we add in the concept of the biosphere and the manner in which analysts articulated its fragility. The awkward phrase "save the biosphere" makes a poor motto because most people probably do not know what it means. "Save the earth" is a much catchier shorthand for the same idea. Caldwell (1972) made that linkage explicit in the title of his 1972 book, *In Defense of Earth: International Protection of the Biosphere*. The book presents several centuries of research that led up to the concept of the biosphere and Caldwell used "earth" and "biosphere" interchangeably throughout the text. For example, a section of Chapter One was titled "Must Men Destroy the Earth?" (p. 29), and he explained what he meant one page later: "This course [endless growth of material consumption] if unchecked would surely end in destruction of the biosphere and ultimately of human society itself." (p. 30) He thought that the notion of a Spaceship Earth was a very effective metaphor for portraying the importance and fragility of the biosphere. "The Spaceship Earth paradigm was a convenient symbol for the more complex and abstract concept of the biosphere. A belief that the viability of the biosphere was threatened and that Spaceship Earth was in jeopardy led logically to a critical look at the adequacy of international machinery for environmental protection" (p. 147).

Caldwell's linkage of the earth to the biosphere and from there to human welfare provided a cognitive path, in the form of a narrative story, that environmentalists could use to claim that, when they seek to defend the earth (that is, the present biosphere), they do so precisely because it promotes human welfare. When testifying in front of a Senate committee during the run-up to the 2009 Copenhagen climate negotiations, former

Vice-President Al Gore made that connection explicit: "Our home—Earth—is in danger. What is at risk of being destroyed is not the planet itself, of course, but the conditions that have made it hospitable for human beings" (Addressing Global Climate Change, 2009). Thus, the rationale for stopping climate change is because it will harm people. But using this multi-stage chain of thought creates separation, at least rhetorically, between saving the earth and helping the people already on it.

"Save the earth" and its variants pop up throughout the literature on climate change. David Victor (2011) book has the subtitle *Creating More Effective Strategies for Protecting the Planet*. Writing about the political conflicts in climate policy, Pooley's (2010) title is *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*. A variation on this theme, that humanity *can* save the Earth, shows up in Wohlforth's (2011) book *The Fate of Nature: Rediscovering our Ability to Rescue the Earth* and the even more dramatic title by Monbiot (2009), *Heat: How to Stop the Planet from Burning*. The United Nations Environment Programme (2009) titled its summary of the Intergovernmental Panel on Climate Change (IPCC) studies *Climate in Peril: A Popular Guide to the Latest IPCC Reports*. The phrase is an almost unconscious, taken for granted, invocation. The phrase is just as common today. When speaking about the recently deceased James Lovelock, the environmentalist Bill McKibben said "He credibly played a significant role in literally saving the Earth by helping to figure out that the ozone layer was disappearing" (Schneider, 2022). Despite Mr. McKibben's use of the word "literally," he did not mean that the Earth would physically vanish if it lost its stratospheric ozone layer. To better understand this phrase and its contribution to the overall climate narrative, we need to understand it as a metaphor.

As Lakoff and Johnson (1980) put it in their classic book, a metaphor enables us to make sense of some phenomenon by saying it is like something more familiar. Subtle changes of wording can lead to sharp changes of meaning. For example, while "Save the Earth" signifies someone with strong environmental goals, saying that someone wants to "Save the World" implies that they have social goals. In addition, it is the phrase as a whole, not just its individual words, that gives the metaphor its meaning. I argued above that, at least within the more technical literature, "Earth" was colloquial shorthand for "biosphere," more specifically the overall environment in which human civilization had arisen. The metaphorical power of the phrase comes in, however, when we add the verb "Save."

If the "Earth" or biosphere or environment is something we can "Save," that tells us that the Earth is something that needs saving and that we can save it. As I showed above, by the 1970s scientists had accepted the notion that the climate, in particular, was not inherently stable and that human actions could in fact disrupt it. Public figures speaking about the global environment more generally used more explicit terms to connote fragility, such as "spaceship earth (noted above) or "lifeboat earth" (Fiskio, 2012).

The metaphor does more than just explain the "Earth," it also tells us something about ourselves as potential saviors. First, it connotes an attitude of hubris. We're instructed to *save* the earth, not preserve it, respect it, nurture it, appreciate it, live in harmony with it, or any number of other less-muscular verbs. Second, the phrase implies that we *can* save the earth, an idea that both suggests that human societies possess extraordinary powers and that there is a coherent "we" who can take these actions. Third, worrying about saving the earth or climate or even biosphere draws our attention to just those geophysical entities. Many advocates who use that language, such as Vice President Gore in the quotation above, make the linkage that protecting the climate will prevent harm to people, especially future generations. Nonetheless, climate policies popular with at least some groups and analysts, such as raising the price of fossil fuels, could harm the most vulnerable groups in the current generation. Some advocacy groups are aware of that problem and so advocate for rebates that would compensate the poorest consumers for the higher prices (Resources for the Future, 2020). That said, it is all too easy to imagine policies that would raise energy prices without such compensation, which is already the case with cap and trade policies.

The Save the Earth narrative usually comes with two other components that make it a trap for its users. When used by itself, Save the Earth may simply be a social signifier. But when tied to the other two components of the narrative, the storyline hardens into a conceptual trap.

No choice

Another component of the Save the Earth climate narrative tries to put policy makers into a box by asserting that they have "no choice" but to adopt a certain set of policies, in particular those that lead to greatly reduced carbon emissions in a short period of time. This rhetorical ploy seeks to narrow policy makers' options through proclaiming that the situation is so dire that only one course of action makes any sense and so the sooner policy makers get to it, the better.

"No choice" amplifies the sense of urgency in this climate narrative and frames the issue as one that purports to constrain policy makers. Unlike "Save the Earth," the phrase "no choice" does have an intuitive and literal meaning, one that corresponds to people's experience. Who has not had the experience of feeling that circumstances presented you with only one choice about some decision? However, despite this intuitively appealing feature of the phrase, saying that policy makers have "no choice" about their climate policy shows a basic misunderstanding of how policy making works and forecloses discussion of alternative policy choices. Users of the phrase seek to constrain policy makers and so do them a disservice. Consensus on the scientific understanding of climate change does not dictate a single course of action; for example, Weiss and Bonvillian (2009), Pielke (2010), Prins et al. (2010), and Victor (2011, esp.

42–49) all have proposed alternative policies that emphasize energy innovation, in contrast to the Kyoto Protocol, a treaty that addressed climate change by trying to mandate limits on the amounts of greenhouse gases that nations could emit.

Policy makers have choices to make about climate change and energy no matter how strong the scientific consensus is about climate change. And it is indeed strong. Books and articles on climate change, most famously Al Gore's 2006 book and movie *An Inconvenient Truth,* have made popular what had been well-known in the scientific community for some time: a strong consensus that the climate is measurably warming now and that human action, in the form of greenhouse gas emissions, is the primary culprit. The first point highlighted in the IPCC's 2013 report states that "Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia." The report goes on to state that the warming is mostly due to human-caused emissions of greenhouse gases CO_2 and methane (Intergovernmental Panel on Climate Change, 2013, p. 2 and 9), a conclusion that later reports have only strengthened. Continued emissions of greenhouse gases will further that warming, with serious consequences, though the precise nature, magnitude, and timing of those consequences are impossible to predict. Climate skeptics in the scientific community have dwindled in number and reports from institutions like the National Academy of Sciences and the U.S. government's Climate Change Science Program have reinforced and publicized that scientific agreement.

Despite such scientific certainty, the central fact of policy making is that governments do have choices. To be sure, not all choices available to governments are equally good, and sometimes all of the alternative policies that governments face can be bad. In addition, sometimes governments make mistaken, even disastrous, choices. But they always have choices to make. Pretending otherwise just misunderstands all we know about public policy.

Therefore, the claim that governments have "no choice" about climate policy is actually asserting that society will suffer disastrous consequences from a bad choice. The phrase implies that to make other choices would simply be a crazy act. When the ship of state is headed for an iceberg, only a madman would fail to change course, even if making that course change would risk other unpleasant results. Framing the climate issue in such stark terms reinforces the urgency of the Save the Earth discourse. Advocates using the phrase are presenting climate change as an existential crisis and their preferred policy as the only conceivable solution to it: once policy makers understand the reality of the threat and the availability of the solution, they will naturally make the right choice. The question then becomes how to connect policy makers to this reality and to claim that policy makers who do not sign onto these policy choices are divorced from reality.

Stating that policy makers have "no choice" is also an attempt to short-circuit the policy debate by restricting the creativity of policy making, shutting out competing voices, and narrowing the scope of thinking about what are complex and multi-dimensional problems. For example, both nuclear and renewable energy advocacy groups are promoting straightforward technological solutions to problems that are also political, social, economic, and cultural, as well as technological. Historians of policy and technology have provided us with numerous cases in which simple technical fixes did not work as intended precisely because technologies interact in complex ways with those other variables (for a review of that literature, see Nye, 2006; for a conceptual framework that sorts through such problems, see Allenby and Sarewitz, 2011). Indeed, what are alleged to be simple technical solutions carry with them powerful assumptions about the kind of society and world in which they will function (Laird, 2003).

This narrow approach to policy making can lead to serious consequences. For more than a decade the IPCC has concluded that anthropogenic global warming is already upon us (Intergovernmental Panel on Climate Change, 2007, WGI, Ch. 3, Section 3.2.2.1), and the relentless increases in global emissions of greenhouse gases mean that no conceivable set of policies can prevent at least some additional warming. Under such circumstances, to think only about energy technologies that emit fewer greenhouse gases, indeed to declare such technologies to be the only rational response to the problem, avoids thinking about how to adapt to current and future climate change, as well as how to ensure that new energy technologies don't create bad unintended consequences, how to keep policy flexible so it can learn and adapt to futures that no one can predict precisely, and how to integrate the social, economic, and other non-technological considerations into a policy that makes the world better instead of worse. In short, exponents of a narrative that posits a single, allegedly obvious solution to the grave problems of climate change are avoiding wrestling with complex, difficult, and fluid situations. In contrast, a more useful narrative and framing would expand our thinking about everything from diplomacy to economic and social development, as well as technological innovation, rather than simply declare that governments have no choice. The purpose of policy analysis is to open up alternatives for policy makers, not tell them the one best thing to do, much less try to persuade them that they only have one choice (Pielke, 2007, ch. 1). History handles hubris harshly. This part of the narrative, linked to the urgency of Save the Earth, favors an inflexible and strident approach to climate policy.

Political will

The third component of the narrative is *political will*. Many climate advocates embraced the phrase, perhaps most famously Al Gore. In a 2019 op-ed in the *New York Times*, the phrase

was his tagline when explaining why climate advocates could get the policies they want: "Political will is a renewable resource" ("The Climate Crisis Is the Battle of Our Time, and We Can Win," September 20, 2019). The meaning of the phrase is difficult to tie to anything specific that we can observe, much less measure. Instead, it is another discursive tool that advocates use to try to paint political elites into a corner. Those who use it are claiming that existing policies and technologies that they favor can solve the climate problem. Saying that the solution to climate change only requires "political will" implies that only the character flaws of elected officials stand in the way of drastically reducing greenhouse gases and preventing serious climate change. But calling on politicians to have political will misconceives the problem and so distorts the policy debate. The problem is not that political leaders lack political will, it is that political will itself is a vague concept that provides no explanation for the lack of aggressive climate policies. Instead, invoking it creates a narrative that distracts us from having to confront the real political problems of addressing climate change.

Political will is one of those appealing ideas that, once you start to examine it closely, becomes impossible to pin down. Besides narrowing climate policy debates, it leads to a political trap: if the problem is a lack of political will, the only solution is to call upon leaders to have more of it, a strategy with a poor track record. It is not clear what people mean when they use the term, or even that they have a clear idea of what they mean. Consider one possibility, that the term "political will" is shorthand for "political willpower." Everyone admires willpower in individuals, and we all wish we had more of it. Willpower is fundamentally about delayed gratification for a future benefit. Skip that donut with your morning coffee! Exercise more often! Finish that boring report today instead of putting it off until the last minute! Willpower is a good thing. Precisely because some things take willpower, they are not easy, which leads to our admiration for people who exhibit it and our denigration of those who seem to lack it.

When we think of government as simply a person writ large, or as embodied by a single leader or small group, willpower, which we now call political will, seems just as apt and virtuous. Governments are expected to solve problems by avoiding the temptation of adopting policies that are popular in the short term but destructive in the long term and instead doing what is difficult, enacting policies that are unpopular or painful in the short term but provide big benefits in the longer term. Of course, in a democracy the public may punish politicians for exercising political will, possibly voting them out of office. Nonetheless, we expect, or at least wish, that politicians would take such risks in order to solve social problems. The most acute need for political will comes when governments must impose short-term costs, say, a bigger tax on fossil fuels today, to gain long-term benefits, such as avoiding rising sea levels, many years or even decades from now. But wishing that politicians *would* behave differently

does not explain *why* they do what they do or how they might change what they do.[4]

This argument for the virtues of political will, expressed as governmental willpower, falls apart on several grounds. First, people calling for political will are vague about who is supposed to exercise such will, usually claiming that "we" need to show political will. Does this mean presidents, members of Congress, other political elites, business leaders, the public at large, or all of the above? Second, calling for political will implies that everyone knows and agrees on the right course of action, making political will another rhetorical effort, along with "no choice," to try to restrict the choices that policy makers can consider. In people's ordinary experience with will power, the correct choice is usually simple to know if hard to enact. We really would be better off in the long run by skipping that donut or exercising more and only the most deluded can think otherwise. But that is usually not the case for difficult policy issues. Long-term problems present many complexities and even the best policies will need modification in the future and may be highly debatable in the present. Is the best approach to global warming greater taxes on fossil fuels, government funds for research, more investments in public health, better weather forecasting and disaster planning, or sending American engineers to the Netherlands to learn how to build effective seawalls? How much of any of these policies, or others, should the government introduce? Agreement on the scientific facts of climate change do not lead to automatic agreement on the best policies to deal with it (Victor, 2011, p. 5–6). Disagreement over policies does not indicate a lack of will power, and a discourse that presents it that way tries to impose simplistic thinking on a complex world.

An additional problem with the phrase political will is that governments are *not* individuals writ large. They do not possess a single mind, or will, that guides them. Instead, the public policies that come out of governments depend on a set of actors inhabiting interlocking institutions with rules, standard operating procedures, political constraints, duties, obligations, powers, and guiding principles. All individuals, even the most powerful, operate within those institutions, even if they work to change them. Those institutions, in turn, operate in a wider political, economic, and social context that includes everything from broad public opinion to focused lobbying, from the 24 h news cycle to the need to raise money for election campaigns, and from economic growth to inequality. If our government neglects long-term problems in order to avoid short-term pain, there are reasons other than the personal failings of individual leaders. The most obvious institutional constraint in the United States is that passing legislation requires agreement by the president, the House, and the Senate, and the arcane, antimajoritarian rules in the Senate enable a minority of senators, who might represent an even smaller minority

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4 For a critique of political will in the political science and development field, see Persson and Sjöstedt (2012).

of the population, to block legislation unless its supporters can get a super-majority to overcome their opposition. With this set of institutional structures, one should not expect government policies to simply reflect public opinion nor should one expect policy makers to ignore the parochial interests that they represent.

Despite these institutional constraints, in the past the U.S. government has enacted costly, long-term policies. Congress passed and President Dwight D. Eisenhower signed legislation that created the Interstate Highway system, a project that took decades to complete and cost many billions of dollars. While that policy had the short-term advantage of creating construction jobs and greatly improving the U.S. road system in the long term, the government also had to tax Americans to build it, current pain for future gain, at least from the perspective of the taxpayers (Seely, 1987, p. 213–287). President William J. Clinton pushed for and Congress agreed to raise taxes during his first term to balance the federal budget, a policy he pursued tenaciously (Jehl, 1993). President George W. Bush steadfastly pursued the Iraq War, despite growing pressure from political elites of both parties to end it and punishment from the voters in the 2006 mid-term Congressional elections. Indeed, his response to both the election and the Baker Commission report, which sought to give him a face-saving exit strategy, was to escalate U.S. troop numbers in Iraq (Hulse, 2007).

If U.S. history is replete with examples of political leaders creating unpopular or long-term policy, why do they fail to deliver on climate change? There are no simple answers, but just attributing the problem to a lack of "political will" and then demanding that leaders have more of it will not explain or solve the problem. In addition to the institutional problems mentioned above, current policy makers operate in a context that includes political factions fiercely committed to stopping government action on climate change (and a host of other issues) and willing to use extreme tactics to attain their goals (Mann and Ornstein, 2012).

Finally, calls for greater political will carry with them the implicit wish that leaders ignore all the contending political forces around them, which itself carries considerable risks. Sometimes those who call for greater political will seem not to recognize the line between leadership and demagoguery. Even the most benevolent dictatorships never stay benevolent. Policy making is never, and should never be, simply a reflection of public opinion surveys or interest group positions, but neither should it be wholly indifferent to them. Effective government will always require more than individual willpower. Individual leaders will always have their strengths and weaknesses and the twists and turns of history will always affect our political fortunes. But we cannot wait for perfect leaders or popular unanimity to solve our problems. We need a set of policies that work with institutions and people as they actually are.

Climate narratives and their pathologies

Framing climate change with a narrative of saving the earth, having no choice, and demanding political will attempts to force policy makers onto a narrow policy path. But in fact the frame is a trap for climate advocates, containing a profound misdiagnosis of the problems of getting effective climate policy. It implies that policy makers know what the best course of action is and that only their weak wills prevent the government from enacting such policies. It also carries the whiff of a very undemocratic approach to politics.[5] Political elites should simply do what needs to be done, this approach declares, and if necessary just steamroller over opposition. What needs to be done is clear, in this view, from what we know scientifically about climate change. This last point shows how powerful the naturalistic fallacy is. Cronon has shown how pervasive that fallacy has been, how environmental advocates have used nature as a moral imperative, quickly making the leap from "is" to "ought." "The great attraction of nature for those who wish to ground their moral vision in external reality is precisely its capacity to take disputed values and make them seem innate, essential, eternal, non-negotiable" (Cronon, 1995, p. 36). Such a leap misunderstands nature and the relationship of humanity to it. "And yet: we must never forget that these stories are ours, not nature's. The natural world does not organize itself into parables" (Cronon, 1995, p. 50).

This narrative dovetails closely with a set of policy goals that are top-down, draconian, and would seem to brook no compromise with other issues or interests. For the users of this narrative, it is to be an "ordering device" (Hajer and Laws, 2008, esp. 252), something that gives clear instructions to policy makers about how to act in a complex and ambiguous circumstance.

This narrative provides a framing for climate policy and frames are never neutral (Stone, 2012, p. 252–253). The Save the Earth narrative focuses on a particular part of the wide range of climate policy issues. It fits one of the most common policy narratives, the story of decline. Such stories posit that the situation in the past was reasonably good, but that now things are going downhill. "The story usually ends with a prediction of crisis... and a proposal for some steps to avoid the crisis. The proposal might even take the form of a warning: unless such-and-such is done, disaster will follow" (Stone, 2012, p. 160; see also Mayer, 2014, p. 59–61).

Decline narratives also have characters: "The drama of heroes, villains, and innocent victims is part of every problem definition..." (Stone, 2012, p. 161). Deciding who fits into these

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5   The notion of "will" is a complex one in political theory and some of the historical cases of advocates invoking a leader's strong will as a political good are quite chilling.

categories influences how people perceive the best response to the climate problem. Indeed, much of the disagreement about appropriate policies rests on arguments, sometimes implicit, about just who is a hero, villain, or victim. Almost everyone in the environmental climate community puts climate scientists into a heroic role. However, beyond that group, the assignment of roles in the climate narrative becomes much more fine-grained, deriving from the many policy disagreements within that community.

The victims in this story vary, but usually include everyone who will live in the future, put most evocatively by Hansen's book title *Storms of My Grandchildren* (Hansen, 2009). They are often distant in space as well as time, such as people in Bangladesh or the Marshall Islands who will be flooded out of their homes by rising seas and storm surges (World Bank, 2013). Recent studies attribute some fraction of contemporary floods to rising sea level caused by climate change (Kopp et al., 2016; Strauss et al., 2016), which makes at least some of those harmed by contemporary floods also victims of climate change. Nonetheless, the emphasis remains on the future, with many climate campaigners proclaiming that our children or grandchildren will berate us for the world we left them (Hansen, 2009; Holthaus, 2015).

Most important, and most controversial, is who gets slotted into the category of villain. Narratives usually contain causal claims, sometimes implicit, that drive the prescription of the narrative (Stone, 1989). If we want to change something about the current or future world, we need to know what is pushing it in the wrong direction now. Making people villains of the climate change narrative tells us who to target for change. The causal claim of the climate change narrative is a two-stage story. The first stage explains the technical causes, a question that science can answer; human emissions of greenhouse gases are causing the climate to warm, a point on which there is long-standing and overwhelming scientific agreement (Weart, 2003; Oreskes, 2004).

The greenhouse gas emissions are the "what" that causes climate change. But gases do not make very good villains, which leads to the second stage of the climate causal story. Who causes those excessive emissions? Here the story becomes much more muddled. Most environmental groups excoriate climate denialists, people who claim either that there is much disagreement about the basics of climate change within the scientific community or, worse, simply charge that the scientific community is perpetrating a major fraud on the society by claiming a human-caused climate change that they know does not exist. A high-profile official who has promoted such denialism is Senator James M. Inhofe (R-OK), who in the early 2000s was the chair of the Senate Environment and Public Works Committee. In a notorious 2003 speech on the Senate floor, he declaimed "With all the hysteria, all the fear, all the phony science, could it be that manmade global warming is the greatest hoax ever perpetrated on the American people? I

believe it is."[6] Inhofe was in an unusually powerful position to block climate policy initiatives, since legislation would have to go through the committee that he chaired. In addition to his strategic policy-making position, he also provided political cover to those who oppose such policies for self-interested reasons.

Nonetheless, declaring denialists to be the "who" that causes climate change depends on its own causal story. That story says that citizens, policy makers, and business leaders are being fooled by the climate denialists and that if they understood the actual science of climate change then they would all change their behavior. Citizens would curtail their use of fossil fuels and pressure their elected representatives to fight climate change, policy makers would make it more expensive to burn fossil fuels and subsidize R&D and deployment of carbon-free energy sources, and businesses would more aggressively invest in carbon-free energy, all of which would reduce or eliminate the problem. But that story assumes that the denialists have been successful, that the public and policy makers do not understand real climate science and therefore do not support strong actions to reduce greenhouse gas emissions. Yet the available data do not support that story. According to a recent survey, 73% of Americans believe that global warming is happening and 62% believe that it is mostly human caused. Americans are not sanguine about its effects; 73% of them believe that it will harm future generations (Leiserowitz et al., 2020, p. 6, 9, and 16). Another survey found that 65% of Americans agreed with the statement that the "federal government is doing too little to reduce the effects of climate change" (Pew Research Center, 2020, p. 4). Of course, public opinion does not automatically translate into public policy. The U.S. federal government has many anti-majoritarian features that enable a minority of policy makers to stop policies that enjoy majority support among the public. That said, the problem is not that denialists are succeeding in fooling the public or policy makers.

Depending on who is telling the story, other groups bear responsibility for being the "who" that lead to excess emissions. In one story, the firms that produce fossil fuels are the villains, highlighted by the movement among students to push their universities to sell their holdings of stock in such companies, the divestment movement (Gelles, 2015). GHG emissions are caused, in this story, by the actions of these firms to produce fossil fuels and then sell them to those who burn them. Divestment activists seek to delegitimate or even drive such firms out of business, which they claim will then lead to reduced fossil fuel consumption and so lower emissions, for the simple reason that less fuel would be available to burn. Making oil companies the villains of the climate causal story puts the blame onto a small number of highly-visible, and often unpopular, firms and so leads activists to seek actions that will punish them.

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6   149 Cong. Rec. S19943 (daily ed. July 28, 2003) (statement of Senator Inhofe).

Making fossil fuel firms responsible for GHG emissions also shifts the blame away from other groups, not least consumers themselves. After all, oil companies produce oil products for the simple reason that consumers buy them. Of course, consumers in industrial countries could not survive without consuming fossil fuel products, but an alternative causal story would be that GHG emissions come from consumers wanting to use too much fossil fuel, that we can best see the villain by looking in the mirror. That narrative drives a small industry of books and articles about how to be a green consumer (for example, see Brower and Leon, 1999). But designating consumers as the villains creates another set of political problems. Which consumers are the villains? American consumers? Western consumers? Everyone in the whole world? The choices are even more fine-grained than that. If American consumers are the villains, which ones bear that burden? All Americans? Only the most affluent, say the top 20%? Only the rich, the now-infamous 1%? The choice of villain in this narrative drives the politics of climate change and making consumers, or some subset of them, the villains instantly creates severe political problems for climate policy advocates. After all, the villains are the ones who need to change what they are doing to solve the problem and so should bear the costs of reducing fossil fuel use. Is there any group that will not resist that?

Further complicating the problem is that attributing blame is more subtle and problematic for climate change than it is for other types of policy problems. Is it really plausible that governments would pass sufficiently stringent laws restricting fossil fuel consumption if the climate deniers would stop casting doubt on climate science? Would consumers meekly accept drastic cuts in their energy consumption if fossil fuel companies collapsed because all the universities in the country sold their shares of fossil fuel stocks? Those scenarios contain, to put it mildly, a long string of heroic assumptions. By some measures, consumers have done quite the opposite, willfully and gratuitously increasing their fossil fuel consumption. Between 1980 and 2018 in the United States, cars dropped from 83 to 37% of new vehicle sales, replaced by growing sales of large SUVs, pickup trucks, vans, and small SUVs, clearly working against efforts to reduce greenhouse gas emissions (U.S. Department of Transportation, n.d.). Moreover, the growing popularity of SUVs is now a global phenomenon (IEA, 2021).

These efforts to find a villain in the climate narrative also suffer from a deeper problem. Our conventional concept of responsibility, and so of blame, does not fit the reality of climate change. As Jamieson (1992, p. 148) put it, "Our current [conception of responsibility] presupposes that harms and their causes are individual, that they can readily be identified, and that they are local in space and time." However, climate change is different. "Apparently innocent acts can have devastating consequences, causes and harms may be diffuse, and causes and harms may be remote in space and time" (Jamieson, 1992, p. 149). People drive cars, heat rooms, and turn on lights because they need to get to work, survive winter, and read at night, not because they want to cause global warming. Since GHG emissions anywhere can cause climate change everywhere and remain in the atmosphere for centuries, climate change fits the category of diffuse causes and harms distant in time and place.

Because there are no direct causal paths that lead unambiguously and exclusively to one blame-worthy party, climate change is made to order for the political construction of blame and responsibility, hence the fierce debates over the framing narrative and the role of the villain. Many climate advocates have tried to escape this problem through the use of ambiguity, keeping the identity of the climate villain vague by using the first-person plural; "we" must reduce our emissions and make sacrifices to stop climate change (Hansen, 2009, p. 205; Lipow, 2009; Clark, 2012; Stern, 2015, in the title; WWF, 2016). In some cases ambiguity in framing a policy it can enable diverse groups with different approaches to a problem to agree on a common policy precisely because the meaning of that policy is ambiguous. In that way they can keep their divergent stories and moral commitments but still agree on a plan of action (Stone, 2012, p. 238, 257–260). But in the case of climate change, that ambiguity about the causes of the problem and the onus of responsibility can be an impediment to policy because it does not lead to a consensus over what to do. Assorted authors and advocates use "we" to make it sound like they have a solution to the problem when in reality they either cannot or will not specify just who "we" are. Taken literally it means that the blame and responsibility are on everyone, but if everyone is responsible then really no one is, since everyone can plausibly say that their contribution in reducing GHG emissions would be meaningless unless everyone does it (Jamieson, 1992, p. 150). In practice, using "we" is simply a rhetorical means of trying to avoid the question of responsibility and, for some users, "we" means everyone else. Developing countries have in effect responded to the exhortation that "we" must reduce our emissions by saying "you first." Using "we" avoids stating clearly who has to do what. Because of the problems with applying the traditional conception of responsibility to climate change, framing climate change without a clear villain or with universal villainy puts climate change advocates into a political corner.

Climate advocates need a new story to tell, a new narrative, that frames climate change in a manner that encourages the formation of new coalitions and focuses on finding policies that can address the increasingly serious problems that climate change will create. Some environmental groups, scientific associations, and government officials have already started to do that. The Green New Deal (U.S. House of Representatives, 2019) and the Biden administration's Build Back Better proposals (Executive Office of the President, 2021) both focus on the jobs and economic growth that a climate-friendly energy transition will create. These proposals, whether or not they become law, form part of what can become a new climate narrative, one that focuses on the needs of people today, so that they can slow

down climate change, thrive economically, and have to resources they need to cope with problems of climate change that have already begun. The emerging climate justice narrative, of which the Green New Deal is the most high-profile example in the United States, has the potential to reframe climate policy with a new story, though its precise form is still a matter of debate. But however that narrative works out, climate change advocates need a new narrative because the old one has become a cage, trapping the very groups that use it. Environmentalists need to break out of it.

Data availability statement

The original contributions presented are contained in the citations in the article, further inquiries can be directed to the corresponding author.

Author contributions

FL is fully responsible for conceptualizing this paper, data gathering, analysis, and conclusions.

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The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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