

The Wages of Fear? Toward Fearing Well About Climate Change*

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What role, if any, should appeals to fear play in climate change communication? Moral and practical worries about fear appeals in the climate change debate have caused some to turn toward hope appeals. I argue that fear can be a rational and motivationally powerful response to climate change. While there are good reasons to worry about the use of fear in politics, climate change fear appeals can be protected against the standard criticisms of political fear. Hope appeals, by contrast, seem vulnerable to serious motivational drawbacks in the case of climate change. We should not therefore abandon fear appeals in favor of hope appeals. Instead, we should take our bearings from Aristotle in an effort to cultivate fear more responsibly. Aristotle offers an appealing model of “civic fear” that makes room for the best aspects of hope, elicits rather than extinguishes our sense of agency, and invites rather than forecloses deliberation.

Scientists, policymakers, and activists have historically used information to prompt action on climate change. They have tried to change our behavior by giving us facts about the phenomenon’s causes and consequences. This strategy rests on an “information deficit” model, which assumes that inaction on climate change is caused by a lack of information (Bain et al. 2012, 2016; Moser and Dilling 2011; Stern 2012; Sturgis and Allum 2004). This model has informed most of climate change communication for the past three decades. It is also dramatically incomplete.

As the science on the causes and consequences of climate change has become more settled, as more information has been publicized, and as more resources have flowed to powerful climate action campaigns, changes in public opinion have been modest. Over the past decade, the proportions of Americans who think climate change is happening and that it is mostly human-caused have not increased markedly (Leiserowitz et al. 2018, 5–7). There has also been no stable increase in worry about climate change (Leiserowitz et al. 2018, 10).¹ It remains a low political priority for most Americans (Pew Research Center 2018). These findings suggest that while information and understanding may be necessary for motivating action, they are not sufficient (Moser and Dilling 2011; Nisbet and Scheufele 2009; Sturgis and Allum 2004).²

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¹ However, the proportion of Americans who report that they are “very worried” (as opposed to “somewhat worried”) reached an all-time high of 22% in 2017 and currently sits at 21% (Leiserowitz et al. 2018, 10).

² For various explanations of why information and understanding may not be motivationally sufficient, see: Bain et al. (2012); Broomell, Budescu, and Por (2015); Markowitz and Shariff (2012); McCright and Dunlap (2011); McQueen (2017); Myers et al. (2013); Weber (2006).

In response to this problem, some scholars have started to focus on the role of emotions in motivating action on climate change (Leiserowitz 2006; Markowitz and Shariff 2012; Moser 2007; Myers et al. 2012; Norgaard 2011; Smith and Leiserowitz 2014). The assumption of a lot of this work is that affective strategies can complement informational approaches to increase popular concern, motivate collective action, and exert popular pressure for domestic and intergovernmental policy changes (Moser and Dilling 2011).

Fear has received the most attention. Appeals to fear have been central to a lot of recent climate change communication. It is not hard to see why. Fear appeals promise to overcome the motivational challenges of climate change by making the issue more salient. However, they have also been criticized as “fear mongering,” antithetical to democratic and civic values, and counterproductive (Ereaut and Segnit 2006; Feinberg and Willer 2011; Gourevitch 2010; Mann, Hassol, and Toles 2017; Moser and Dilling 2004, 2011; Nordhaus and Shellenberger 2007, 2009, 2014; O’Neill and Nicholson-Cole 2009).

In part for these reasons, attention has increasingly turned to hope as an alternative to fear (Chadwick 2015; Feldman and Hart 2018; Head 2016; Moser 2007; Ojala 2012; Stern 2012; Upton 2015; Williston 2012; Yeo 2014).³ I question this turn from fear to hope. In the case of climate change, fear appeals have more strengths than their critics seem to think, while hope appeals have dangers that their proponents have not yet confronted.

Blending philosophical treatments of fear and hope with social scientific research on climate change communication, my argument proceeds as follows. In sections 1 and 2, I argue that climate change fear appeals have clear benefits and that these appeals can be protected against the standard criticisms. The most serious danger of climate change fear appeals is they risk engendering a sense of resignation, which in turn undermines individual and collective action.

In sections 3 and 4, I consider the proposed alternative of hope appeals. While climate change hope appeals promise to avoid the danger of resignation, they risk encouraging complacency, which may be equally pernicious. We should therefore be wary of abandoning fear appeals in favor of a strategy of hope.

In section 5, I turn to Aristotle for guidance on how fear about climate change might be cultivated both more responsibly and more effectively. Aristotle’s insistence that we attend to the ethical and political dimensions of rhetoric is a corrective to contemporary debates about climate change communication, which tend to focus more narrowly on questions of the effectiveness of rhetoric (cf. Lamb 2018; Lamb and Lane 2016). I outline Aristotle’s conception of “civic fear,” which I take to be an empirically-sensitive model for how political collectives can fear well about a common threat (Aristotle 1996, 1308a, 135; Aristotle 2006, 1382b-1383a, 128–31; Pfau 2007).⁴ A civic fear appeal is designed to reap the salience benefits of fear and the motivational benefits of hope without

³ The background assumption behind the turn to hope as an alternative to fear is that the two are inconsistent emotional strategies. This might seem strange if one holds something like the following view. *S* fears that *p* when *S* wishes that *not-p* and is uncertain whether *p* or *not-p* will obtain. Understood in this way, fearing that *p* and hoping that *not-p* are compatible. *S* hopes that *not-p* when *S* wishes that *not-p* and is uncertain whether *p* or *not-p* will obtain (Gordon 1980, 564). One needs to specify further preconditions for fear and hope that show why they are incompatible (for two different attempts, see: Descartes 2015, II.58, 221; Gordon 1980). However, I think the primary reasons why many climate change commentators see hope and fear as opposed are empirical and conventional. Some studies of climate change communication have found an inverse relationship between fear and hope. Communicative strategies that increase fear also tend to decrease hope, and vice versa (e.g. Feldman and Hart 2018). Furthermore, in American public discourse about politics generally and climate change specifically, fear and hope are often opposed (B. Clinton 1994; H. Clinton 2016; Debenedetti 2016; Gore 2014, 2016; Mandel 2016).

⁴ The term “civic fear” is Michael Pfau’s (2007) and I will use and extend Pfau’s analysis in section 5.

succumbing to the dangers of resignation or complacency. This, I suggest, is an attractive possibility for climate change communication.

1. The Promise of Fear

Throughout the paper, I will understand “fear” as a placeholder for a more general kind of powerful negatively-valenced response to a possible undesirable outcome (or threat). Insofar as there is a motivational component to fear it involves prompting the fearer to attend to and avert the threat.

A fear appeal is an argument or persuasive message that attempts “to arouse fear in order to promote precautionary motivation and self-protective action” in the face of uncertainty (Ruiter, Abraham, and Kok 2001, 614; see also Witte 1994, 114; cf. Walton 2000, 20). A rhetorically ideal fear appeal does four things. First, it identifies a threat to which recipients or those to whom they have moral or affective ties are *susceptible*. Second, the fear appeal offers evidence that this threat is *severe*.⁵ Combined, these first two elements generate a sense of threat.

Third, the fear appeal recommends a course of action (or range of actions) that it presents as *effective* in responding to the threat. Psychologists and communications scholars sometimes refer to this as “response efficacy.” Finally, the fear appeal presents this action (or range of actions) as easy or, at the very least, as within the *power* of the recipient to undertake. Psychologists and communications scholars sometimes refer to this as “self-efficacy” (Ruiter, Abraham, and Kok 2001).⁶ Combined, these final two elements generate a sense of agency.

Fear appeals are most common in public health campaigns. Consider a classic example from an Australian campaign to increase AIDS awareness. A television advertisement depicts a Grim Reaper bowling a ball, which gathers speed and knocks over ten human “pins.” A voiceover states:

At first, only gays and IV drug users were being killed by AIDS. But now we know every one of us could be devastated by it. The fact is [that] over 50,000 men, women, and children now carry the AIDS virus. That in three years, nearly 2000 of us will be dead. That if not stopped, it could kill more Australians than World War II. But AIDS can be stopped and you can help stop it. If you have sex, have just one safe partner or always use condoms. Always.

The advertisement ends with the message: “AIDS. Prevention is the only cure we’ve got” (NACAIDS 1987). The advertisement presents HIV infection as a threat to which viewers and those with whom they have close ties are susceptible. It stresses the severity of the threat. It recommends effective response actions (safe monogamous sex and condom use). It suggests that recipients have the power to take these actions.

Fear is also the emotional currency of much of the climate change debate. Consider the following example from an article by Al Gore that accompanied the release of *An Inconvenient Truth* in 2006. He begins by identifying a severe threat: “the rapid accumulation of global-warming pollution in the Earth’s atmosphere...is a true planetary emergency.” Given that many of the worst effects of

⁵ This need not amount to showing that the threat is likely to obtain. It might instead amount to showing that the expected disvalue of the threat is high. So, a severe threat could be: (a) improbable but dire, if it obtains, or (b) more probable but comparatively less dire, if it obtains.

⁶ I have made two small modifications to Ruiter, Abraham, and Kok’s (2001) list of the elements of a fear appeal. First, they stress that an ideal fear appeal presents a threat “to which the recipient is [personally] susceptible” (614). I see no reason why this need be the case. We can feel fear on behalf or for those with whom we have some kind of moral or affective connection. Second, they stress that the recommended action(s) must be easy to execute. I am not convinced that this need be the case. We might imagine a recommended action that is likely to be effective and, while not easy to execute, is well within our power to execute.

climate change will be felt by future generations, it can be hard to convey a sense of susceptibility. Gore does this by stressing the imminent effects of climate change: “All of this, incredibly, could be set in motion in the lifetime of children already living.”

Gore gestures toward potentially effective responses to the threat—investment in clean energy and corporate emissions reductions. He also suggests that these changes are within the power of corporate and political actors to make: “The procrastinators and deniers would have us believe that this will be painful and impossibly expensive. But in recent years dozens of companies have cut emissions of heat-trapping gases and *saved* money” (Gore 2006). Where his fear appeal struggles, as many on climate change do, is in eliciting a sense of efficacy among those who are not corporate or political decision makers.⁷

The promise of fear appeals is that they can make a threat salient. This is especially valuable in the case of climate change. Because the causes of climate change are complex and its worst effects probabilistic and spatially and temporally distant, the issue often lacks salience for those best placed to take action. Even if climate change were to become more salient, it must compete for attention with other issues. Psychologists and climate change communication scholars have found evidence that people have a “finite pool of worry.” As we worry more about one kind of risk, our concern about other risks goes down (Linville and Fischer 1991; Weber 2006). This may be one explanation for why concern about environmental issues decreased in the United States after the 9/11 terrorist attacks and again in the wake of the 2008 financial crisis (Saad and Jones 2016). Fear appeals promise to make climate change salient in the face of these obstacles.

Successful fear appeals make threats salient by focusing our attention on them. Aristotle understood this. When we face genuine risks and dangers, he argues, focus is a salutary response (Aristotle 2006, 1382b, 130; Leighton 1988). As Howard Curzer puts it, “fear foregrounds certain things, bringing them to our attention, meanwhile backgrounding other things that would just distract us. Fear transforms a charming country landscape, uncluttered with unsightly structures or fences, decorated with placid, color-coordinated cows and one tall tree, into a nightmarish, flat, unprotected space with only one possible refuge from a furious, charging bull” (Curzer 2012, 59).⁸

There is substantial empirical evidence that this attentional view is correct. The experience of fear is correlated with an involuntary focus on the perceived threat and the means of escaping it (Faucher and Tappolet 2002, 114–27). More specifically, there is evidence that fear appeals increase the salience of climate change. The problem becomes more salient for those presented with images that elicit fear and horror (Metag et al. 2016; O’Neill et al. 2013; O’Neill and Nicholson-Cole 2009).⁹ Given the attentional obstacles posed by the problem of climate change, these salience effects are especially valuable.

2. The Wages of Fear

⁷ For a recent example of a climate change fear appeal (though one which focuses far more on threat than efficacy), see: Wallace-Wells (2017).

⁸ In understanding fear in this way, Aristotle anticipates philosophical approaches which conceptualize emotions “species of determinate patterns of salience among objects of attention, lines of inquiry, and inferential strategies” (de Sousa 1987, 196; see also Rorty 1980). According to this view, emotions give certain features of our surrounding context “a weight in our experience” that they would otherwise have lacked” (de Sousa 2014).

⁹ It is worth noting that in a larger-*N* study of American respondents, Hart and Feldman (2016) did not find any evidence of the influence of imagery or text about climate change’s impact on perceived issue importance. However, Hart and Feldman used a more limited range of imagery in their experiment. The only image that might be classed as one typical of a fear appeal is an image of flooding.

Critics acknowledge that fear appeals may enhance salience but hold that they prevent us from “fearing well.” There are three sorts of worry here. Let us take them in turn and evaluate the extent to which each holds in the case of climate change fear appeals.

First, fear appeals are sometimes seen to amount to “fear mongering.” The concern, I take it, is that fear appeals aim to elicit fear in circumstances where rational moral agents should experience none. Consider the discourse on crime in the United States during the 1990s. While violent crime started declining dramatically at the beginning of the decade, the evening news was punctuated with reports of murders and warnings about the rise of dangerous young “super-predators.” It is estimated that between 1990 and 1998 there was a 600 percent increase in American network news stories on murder (Glassner 2004, 820). Most Americans are still not aware that violent crime is declining nationally (Cohn et al. 2013).

Fear mongering induces epistemic irrationality by eliciting predictable human biases.¹⁰ A recent and easily recalled news story or emotionally intense invocation of violent crime may cause us to overestimate the frequency of such events. As news coverage of these events increases, our statistical senses become more distorted, our anxiety and fear increases, and our attention to other risks decreases (Kahneman 2013; Kuran and Sunstein 1999). Fear mongering encourages us to overestimate the likelihood of a frightening outcome and to act on this overestimate by, for instance, supporting tougher laws on violent crime. Appeals that “monger” fear prevent an accurate evaluation of our risk.

In the case of climate change, it is not clear that most fear appeals are appropriately subject to this criticism. Absent any sort of communicative or deliberative intervention, many individuals are subject to a range of cognitive biases and forms of motivated reasoning that cause them to either ignore or underestimate the risks posed by climate change (see, for instance: Bazerman 2006; Budescu, Broomell, and Por 2009; Markowitz and Shariff 2012; Stoknes 2015). Rather than aiming to induce epistemic irrationality by eliciting biases, many climate change fear appeals are trying to correct these problems.¹¹

Second, fear appeals are accused of being inconsistent with the ends of liberal and democratic politics. They close off the deliberation and debate required to secure meaningful consent to political aims. Consider the case of McCarthyism. During the height of the Cold War “Red Scare,” McCarthy

¹⁰ In the context of fear and hope appeals, I take the main form of epistemic irrationality to involve beliefs about probabilities that do not track the balance of available evidence.

¹¹ Three important concessions. First, such appeals may nonetheless be manipulative. Whether or not one reaches this conclusion depends on one’s view of manipulation. If one holds a view of manipulation that requires that the manipulator *deceive* the manipulee (e.g. Goodin 1980, 8), a climate change fear appeal need not be manipulative. If the fear appeal were to exaggerate the threat, then it would be manipulative. However, what counts as exaggeration as opposed to, say, emphasizing less probable but more consequential risks is a thorny question (Mann, Hassol, and Toles 2017). If one holds a view of manipulation that requires that the manipulator bypass or subvert the manipulee’s rational capacities, a climate change fear appeal might be manipulative (for an evaluation of the range of views here, see Gorin 2014). While the fear appeal might correct for irrational biases and lead the manipulee to a conclusion that is supported by reasons, it does so by appealing to emotions rather than through reason-giving. But even if we conclude that the fear appeal is manipulative, it does not follow that it is wrong (Baron 2014). It may be that, in believing that that climate change is not a serious threat or one that they have a responsibility to mitigate, those targeted by fear appeals may have made themselves morally liable to manipulation (or potentially even more overt forms of coercion). That is not a view I have the space to defend here. Second, the fact that fear appeals on climate change may not be manipulative in the sense implied by the term “fear mongering” does not mean that they are not *perceived* as manipulative by some of their recipients (Moser 2007). On the difficulties here, see: Lamb and Lane (2016). Third, climate change appeals may remain objectionable on paternalistic grounds, even if they are not mongering fear. But they are not manipulative in the sense suggested above. It is beyond the scope of this paper to address the paternalism objection. However, if one is persuaded by arguments for coercive paternalism (Conly 2012) or libertarian paternalism/nudging (Thaler and Sunstein 2009) in areas like public health, it seems reasonable to think that variations of similar arguments could apply to fear appeals in the case of climate change.

and others used fear to make the threat of America's destruction at the hands of communist sympathizers salient. In so doing, they cast America's survival as the end to which all other political projects must be subordinated (Morgenthau 1960, 148–52). Ideals like freedom and equality were seen as dangerously indulgent in the face of an overwhelming threat to collective survival. McCarthy and his allies presented Americans with a coercively dichotomous choice—a choice between collective destruction and conformity to the demands of the security state. This is the feature of fear appeals that preoccupies many critics of a “politics of fear” (e.g. Furedi 2005; Gourevitch 2010; Robin 2004).

On this view, the problem with fear appeals is not only that they monger fear, but that they are coercively dichotomous. They force us to choose between succumbing to a terrible threat (e.g. destruction at the hands of the Soviet Union) and accepting the proposed means of averting the threat (e.g. hunting down suspected communist agitators, suspending civil liberties, etc.).

Is this a conceptually *necessary* feature of fear appeals? Douglas Walton, who has offered the only sustained philosophical analysis of fear appeals, argues that it is—all fear appeals have a conditional and dichotomous structure. That is, they sharply divide “the respondent’s available options into two mutually exclusive actions (events) where one will (supposedly) occur if and only if the other does not occur. In other words, the upshot of the dichotomized argument is that the respondent has only two options, and that no third option is available” (2000, 20). Many fear appeals, including some about climate change, have the structure that Walton attributes to them.

However, they need not have this structure. For instance, a fear appeal might juxtapose a single threatening outcome, on the one hand, with a range of options that might avoid the outcome, on the other. A politician might attempt to elicit fear by pointing to the threat posed by a hostile neighboring country. She might argue that in order to avert this threat, some sort of action must be taken. She might then propose several options that could plausibly avert the threat—diplomatic negotiations, economic sanctions, a reshuffling of alliances, and military action. Assuming a broad agreement that she has identified a genuine threat, there is still room for elite and/or popular deliberation about which response to choose.¹²

Third, fear appeals are often criticized as counterproductive. There is substantial empirical evidence suggesting that while terrifying arguments and images may increase the salience of a particular threat, they can also prompt a sense of powerlessness, fatalism, and disengagement on the part of recipients. These feelings reduce the motivation for behavioral change and political engagement (Ruiter et al. 2014; Ruiter, Abraham, and Kok 2001; Witte 1994; Witte and Allen 2000). This is because there is no necessary connection between salience and attentional focus, on the one hand, and motivation and behavioral change, on the other. As Aristotle suggests, fear inclines us to “deliberation” about avoiding the threatening outcome (Aristotle 2006, 1383a, 130; Curzer 2012, 59). We are motivated not by fear alone, but by fear in combination with the deliberations that it prompts. If these deliberations lead us to think that any actions we might take will be futile, we will not be scared but resigned.

The extended parallel processing model (EPPM) of fear appeals builds on this insight. A fear appeal initiates two sorts of appraisals. First, the recipient appraises the threat and makes an assessment about susceptibility and severity. If she determines that the threat is great, she then begins a second appraisal and makes an efficacy assessment about the proposed response. When the perceived threat is great and her sense of efficacy is strong, the recipient will attempt to control the

¹² One might respond that this is a rather thin notion of deliberation. That is true, especially when compared to an ideal of deliberative democracy. However, when judged against this ideal, virtually all *actual* deliberation in advanced liberal democracies is rather thin. Because we are concerned about whether fear appeals are appropriate in a world such as ours, the relevant question is how much the deliberation they might encourage diverges from the best forms of deliberation that our world has to offer. I am not convinced they fare too badly on this standard.

danger by taking protective action. When the perceived threat is great and the sense of efficacy is weak, the recipient will instead attempt to control her fear. She will typically do this in maladaptive ways. For instance, she may try to avoid thinking about the threat, impugn the messenger (e.g. by accusing him of dishonesty or manipulation), or question whether the threat is real (Feinberg and Willer 2011; Witte 1994).

This explanation may help to account for a recurrent finding in studies of climate change communication. While scary images and arguments tend to increase the salience of climate change, they also tend to decrease recipients' sense of efficacy (Metag et al. 2016; O'Neill et al. 2013; O'Neill and Nicholson-Cole 2009; Hart and Feldman 2014). Faced with terrifying and often apocalyptic representations of the effects of climate change, many conclude—not entirely without good reason—that any actions they can take will be futile (McQueen 2017). Climate change fear appeals may face a salience-efficacy tradeoff. The very measures taken to make the issue salient (e.g. apocalyptic imagery) may leave audiences feeling powerless and resigned.¹³

But must fear appeals face this tradeoff? No. In fact, there is growing evidence that, when paired with efficacy-enhancing information, salience need not be parasitic on efficacy (de Hoog, Stroebe, and de Wit 2008; Maibach, Roser-Renouf, and Leiserowitz 2008; Nabi, Gustafson, and Jensen 2018; Witte and Allen 2000). Furthermore, appeals that portray a negative prospect as less threatening or not threatening at all have even less capacity to motivate action than scary messages that lack clear action recommendations (de Hoog, Stroebe, and de Wit 2007; Witte and Allen 2000).¹⁴

In sum, there is nothing inherent about fear appeals that makes them vulnerable to the standard moral criticisms. Climate change fear appeals in particular are relatively well-insulated from the accusation of fear-mongering and manipulation. It also seems possible to issue them in a way that invites, rather than forecloses, some deliberation. Perhaps the greatest challenge for the use of fear in climate change deliberation concerns the way in which fear appeals may, in practice, transform fear into resignation. If climate change fear appeals could be designed in ways that preserve their salience effects, do not monger fear, invite deliberation, and avoid engendering resignation, we would be well on our way to fearing well about climate change.

3. The Possibility of Hope

These criticisms of fear appeals have prompted an interest in hope in climate change communication. I understand “hope” as a placeholder for a more general kind of powerful positively-

¹³ This issue was precisely what was at stake in the debate over David Wallace-Wells' controversial article, “The Uninhabitable Earth.” He describes the worst-case effects of climate change—from starvation and plagues to death smogs and wars—in exceptionally vivid terms to frighten readers out of (what he sees as) a dangerous complacency. Critics of the piece, who included a number of prominent climate scientists, did not primarily take aim at Wallace-Wells' presentation of climate science. Rather, they criticized his rhetorical strategy. “Climate doomism,” some claim, breeds resignation. “In many ways,” it is “as pernicious as outright climate change denial” (Mann, Hassol, and Toles 2017).

¹⁴ Engendering a sense of efficacy on climate change is challenging. While there are individual behavioral changes that may, in the aggregate, reduce the impact of global climate change, effective action depends much more on some combination of domestic political changes to existing laws and regulations, intergovernmental cooperation, and international agreements and enforcement. Individual citizens have a more indirect role to play in these responses. The astute recipient of a fear appeal on climate change will be making an appraisal of self-efficacy that includes an assessment of her own capacity for political voice. Her appraisal of response efficacy will include an assessment of whether her political representatives and institutions will respond to her political voice. This sets a high informational and motivational bar for climate change fear appeals (Hart and Feldman 2014, 327).

valenced response to a possible desirable outcome. Insofar as there is a motivational component to hope it involves prompting the hoper to attend to and work toward that outcome.¹⁵

A hope appeal is an argument or persuasive message that encourages the recipient to take this action in the face of uncertainty (Chadwick 2015, 600–1). A rhetorically ideal hope appeal does four things. First, it specifies a concrete goal that is *personally valuable* to recipients. This claim about value is often linked to a claim that the goal will lead to a better future. Second, it gives the recipient reasons to think that the achievement of this goal is *possible*. Combined, these first two elements generate a sense of opportunity (Chadwick 2015, 600).

Third, the hope appeal recommends some course(s) of action that offers a pathway that could be *effective* in achieving this goal (response efficacy). Finally, it presents this course(s) of action as easy or, at the very least, as within the *power* of recipients to undertake (self-efficacy). Combined, these final two elements generate a sense of efficacy or agency (Chadwick 2015, 600–1; McGeer 2004).

For example, consider Barack Obama’s speech to the 2015 United Nations Climate Change Conference in Paris, which in the hindsight afforded by a bleaker present, was a high watermark for hope on climate change. He casts the Paris conference as a turning point in the collective effort to mitigate the worst effects of climate change: “nearly 200 nations have assembled here this week...should give us hope that this is a turning point, that this is the moment we finally determined we should save the planet.” Pointing to American and global successes at reducing (or, at the very least, not increasing) carbon pollution and investing in cleaner power sources whilst sustaining economic growth, Obama suggests that there are effective paths to meeting the challenges of climate change and that states have the power to meet them.

He invites state leaders to reach an agreement on increasingly demanding emissions targets and stronger reporting standards. Obama acknowledges that taking this path “will not reward us with moments of victory that are clear or quick. Our progress will be measured differently—in the suffering that is averted, and a planet that is preserved. And that’s what’s always made this so hard.” However, we must take inspiration from the fact that our children and grandchildren will be able to “take pride in our achievement.” The speech concludes with an exhortation: “Let’s get to work” (Obama 2015). While one might take issue with some of the Obama’s claims about the extent of U.S. success on climate change, there seems little doubt that his speech contains all of the elements of a rhetorically ideal hope appeal.

The promise of hope appeals is that they increase the motivation to bring about the hoped-for outcome. This motivational promise is especially valuable in the case of climate change because both the scope of the problem and some of the rhetorical techniques used to deliberate about it have the potential to elicit appraisals of powerlessness, futility, and resignation (Chadwick 2010, 2015).

If we assume that hope appeals can successfully elicit hope, there is reason to think that this motivational effect is plausible. Like fear, hope operates by focusing our attention on the hoped-for outcome, the pathways available toward that outcome, and the strength of our own capacities for effective action. There is extensive empirical evidence that those with high levels of hope are more goal-oriented, more capable of “generating workable routes” to their goals and identifying alternative routes in the face of impediments, and more likely to think that achieving their goals is within their capacity (Snyder, Rand, and Sigmon 2002, 258; see Snyder 1995, 2002 for a summary of these findings). Those with high levels of hope often express a certain determination or resolve.

¹⁵ For more specific accounts of hope that are compatible with this placeholder, see: Calhoun (2018, 68–89), Martin (2013), and Pettit (2004). As with fear, the analysis here is restricted to hopes for outcomes that are at least partially subject to agential control or influence.

They say things like: “I am not going to be stopped.” “I’ll find a way to get this done” (Snyder, Rand, and Sigmon 2002, 258).

One way to think about such declarations is that they express a kind of certainty that is inconsistent with the act of hoping. By definition, we hope for outcomes that we are uncertain will obtain. If we were certain they would obtain, we would simply await them. However, if we take hope to have a motivational component, it involves thinking, feeling, and planning around the hoped-for prospect obtaining. This need not involve irrational certainty or unwarranted probability assessments. For instance, an injured hiker in a remote location may correctly believe that she has about a 10 percent chance of surviving. If she is hopeful, survival (as opposed to death) becomes especially salient for her. She thinks, acts, and plans as if she will make it through this ordeal.¹⁶ She may think about the vacation she and her family “will” take in six months’ time and consider which colleagues might cover her work duties during her absence. She may fantasize or construct narratives about a future in which she survives. These thoughts, feelings, and plans, she thinks, are justified by the *possibility* of her survival (Martin 2013). She may do all of this whilst correctly recognizing that the *probability* of her survival is low (i.e. without falling victim to epistemic irrationality). Expressions of determination or resolve capture this aspect of hope.

Ordering one’s thoughts, feelings, and plans in this way has a number of motivational benefits. It protects the agent from paralyzing despair. For outcomes within the agent’s power, this protection can preserve the outcome’s chances of obtaining. The despairing hiker, who focuses on the *probability* of survival and envisions a future in which she dies alone in the wilderness, may be discouraged from working hard to survive. The hopeful hiker, who focuses on the *possibility* of survival and envisions a future in which she lives and enjoys her family vacation, may be encouraged to work hard to survive—to fight through pain, to investigate new paths to success, etc. (Martin 2013, 85-90). As Philip Pettit notes: “Many of us will treat a 10 percent chance of success in some venture as a depressing, potentially enervating prospect. And if we do, that may well reduce the chance of success even further. But if we gain heart by the assertion of will be involved in putting hope in success, then we give success the 10 percent chance it really has” (2004, 161; see also Walker 2006, 55–6). In other words, in cases in which an outcome at least partially depend on our own agency, hope may be *pragmatically rational*—it may encourage us to take the actions necessary to give our desired outcome its best chance of obtaining (Martin 2013, 24; Pettit 2004). In the case of climate change, where pessimistic assessments of the prospects for effective mitigation come on the heels of every international conference (and some American elections), these motivation-enhancing benefits may be especially valuable.

4. The Perils of Hope

Assuming that hope appeals on climate change can deliver on this motivational promise, should we simply abandon strategies of fear and devote ourselves wholeheartedly to cultivating hope? I think not. Particularly in the case of climate change, there is reason to worry that hope appeals can lead to wishful thinking and complacency.

¹⁶ Philosophers differ in their view of what, exactly, is going on when this happens. For instance, Philip Pettit argues that the hopeful patient sets her probability assessments aside—puts them “offline”—and tries to respond and act as if the treatment will work or has a “*good chance*” of working (2004, 159, 157, emphasis mine). Adrienne Martin argues that Pettit fails to capture the phenomenon of hope: “The person who takes 1 percent as a reasonable basis for hoping against hope doesn’t thereby think of 1 percent as 25 percent, or anything like that—she simply sees 1 percent as enough to go forward” (2013, 23). Martin argues that the hopeful person orients her thoughts, feelings, and plans around the *possibility* of the hopeful outcome obtaining. For a similar view (albeit one in which the hoper adopts a different temporal perspective), see: Calhoun (2018, 68–89).

Wishful thinking is a species of epistemic irrationality that involves an overestimation of the probability of some good outcome obtaining, despite available evidence (Bovens 1999). How might a hope appeal lead to wishful thinking? Hope appeals stress the personal value of a particular goal, generally by linking it to the achievement of a better future. To the extent that they perform this task successfully, they may encourage a form of motivated reasoning (Kunda 1990). From political to health outcomes, we tend to see the prospects we desire as more likely to obtain (Krizan and Windschitl 2007).¹⁷ So, wishful thinking is a risk of any hope appeal that elicits greater desire for an outcome.

Might wishful thinking in turn engender complacency? Victoria McGeer suggests that wishful thinking, combined with a failure to formulate paths and plans for achieving the hoped-for outcome, leads to a kind of complacency that she calls “wishful hoping.” Wishful hopers “generate hopes that are fanciful insofar as they are not grounded in any real understanding of how they will be realized; they are simply the direct output of desires and so undisciplined by knowledge of the world” (McGeer 2004, 113). There is empirical evidence to support this worry. When we fantasize about a (subjectively) likely outcome—when we “mentally enjoy the desired future” now as if it had already obtained—we are less likely to work toward its achievement (Oettingen and Mayer 2002, 1199). Hope appeals that stress the desirability of an outcome without engaging specifically with paths for its achievement may risk engendering complacency.

Neither wishful thinking nor complacency are empirically necessary outcomes of hope appeals.¹⁸ But there are specific features of climate change that might make both more likely. First, much of the messaging around climate change suggests that individuals in advanced industrialized countries are collectively responsible for “environmental damage as an unintended side effect of their behaviour and lifestyle.” To reduce unpleasant feelings of responsibility, complicity, or guilt, individuals “will often engage in biased cognitive processes to minimize their perceptions of their own complicity” (Markowitz and Shariff 2012, 244). Having minimized their own role in causing the problem of climate change, they will also diminish the role that their motivation and action will have in effecting a solution (Stoll-Kleemann, O’Riordan, and Jaeger 2001).

Second, empirical research suggests that when faced with any uncertainty about the bad outcomes of climate change, individuals are likely to underestimate the likelihood of these outcomes (Budescu, Broomell, and Por 2009). As Ezra Markowitz and Asim Shariff suggest, “the less definitive and incontrovertible the conclusions, the more room there is for individuals to infer unreasonably optimistic outcomes. As that optimism reduces the gravity of the issue, so too may it reduce the motivation to act” (Markowitz and Shariff 2012, 244).

There are two forms that such wishful thinking might take in the case of climate change. First, it might take the form of a vague techno-optimism, in which the hopeful depend on technological solutions for generating effective responses to climate change and therefore fail to take individual or collective action themselves.¹⁹

Second, wishful thinking might take the form of dependence on other individuals or institutions for realizing one’s hopes. Because many climate change hope appeals understandably

¹⁷ While there is good evidence of a correlation between the desirability of an outcome and estimates of its probability, the evidence that increased (decreased) desirability *causes* increased (decreased) probability estimates is only weakly positive (Krizan and Windschitl 2007).

¹⁸ To my knowledge, there are no empirical findings that point to the frequency with which hope appeals cause wishful thinking and/or complacency.

¹⁹ This is not, of course, to say that all those who think technological solutions have a role to play in addressing climate change are wishful thinkers. However, those who (a) hope that technology will save us without a clear conception of how that might happen and (b) fail to take any individual or collective action because of that hope are both wishful thinkers and wishful hopers in McGeer’s (2004) sense of the term.

stress the agency of political and corporate decision-makers, we might expect individual citizens to be especially prone to becoming wishful hopers in this way. There is a sense in which such wishful hoping is not entirely irrational. Political and corporate decision-makers often have more power to take effective action on climate change. Yet to the extent that the beliefs and actions of individual citizens and consumers play some role in influencing and directing political and corporate decisions, this kind of wishful hoping is maladaptive. Without individual motivation, hope in the power of political and corporate decision-makers is misplaced hope.

In sum, while fear appeals seem to be more protected from the standard worries in the case of climate change, hope appeals appear be less so.

5. Civic Fear

The argument so far has identified the promise and potential dangers of fear appeals in climate change communication. It has also given us reason to be wary of abandoning fear appeals altogether in favor of strategies of hope. Is there a way to envision how we might come to fear well about climate change? In this section, I will argue that Aristotle sketches an attractive model that points us in the right direction. Aristotle's model of "civic fear" (Pfau 2007) harnesses the salutary focusing effects of fear and the sustaining effects of hope without surrendering to resignation or complacency.

In the *Politics*, Aristotle notes that citizens need little encouragement to protect their polity from threats that are temporally or spatially near. However, threats that are temporally or spatially distant are more challenging for citizens to see and appreciate. For those living in advanced industrialized states in the global North, climate change is just such a threat. In response to threats of this kind, Aristotle contends, it may be entirely appropriate to cultivate fear among citizens.

When responding to threats to the constitutional order, he advises rulers to "bring distant dangers near, in order that citizens may be on their guard, and, like sentinels in a night-watch, never relax their attention" (Aristotle 1996, 1308a, 135). Here, the relevant political agents are democratic rulers, rather than ordinary citizens. The reason that rulers have a special responsibility to cultivate fear about threats to the constitutional order is because "no ordinary man can discern the beginning of evil, but only the true statesman" (Aristotle 1996, 1308a, 135). The underlying point, however, is that the survival of the polity depends on the capacity of citizens to collectively perceive and understand the threats and opportunities that face them. In some cases, statesmen may have special role to play in aiding this collective perception and understanding.

However, Aristotle also envisions a broader kind of political deliberation that allows the collective to benefit from the particular strengths, practical wisdom, and judgment of other members of the polity (Aristotle 1996, 1281b-1282a, 76-78). It seems reasonable to expect that some of this strength, wisdom, and judgment would bear on the identification and understanding of potential threats to the polity. But whoever apprehends the threat and attempts to elicit popular fear, their ultimate aim should be to prompt deliberation. As we have seen, for Aristotle, fear makes individuals "inclined to deliberation" (Aristotle 2006, 1383a, 130). It turns our cognitive energies to thinking about how to avert the threat.

Assuming that they have identified a threat that is genuine but difficult to perceive and appreciate, how might a statesman, expert, or ordinary citizen elicit fear in a way that prompts the members of a polity to fear well? We can read Aristotle's analysis of fear in the *Rhetoric* as a set of guidelines on this question (Pfau 2007). Like much of the empirical literature on fear appeals, Aristotle suggests that one should stress that the threat has "great potential for destruction or for causing harms that lead to great pains." In the case of threats that are spatially and/or temporally distant, Aristotle urges communicators to draw attention to their proximity: "For what is far off is not feared" (2006, 1382a, 129).

This need not involve any deception or misrepresentation. When dealing with distant threats, one might emphasize the *evidence* or *signs* that these threatening outcomes will obtain. For, “even the signs” of harmful and destructive outcomes “are causes of fear” and make the threat seem “near at hand” (Aristotle 2006, 1382a, 129). So far, this Aristotelian conception of civic fear simply affirms what many fear appeals on climate change already do. They emphasize the harmful and destructive impacts of climate change that are likely to affect the audience or those with whom they have close ties, they draw attention to the signs or observable evidence of these outcomes, and they make the danger seem nearer at hand by stressing the local impacts it is already having and the impacts it is likely to have on generations that are currently living.

Aristotle’s next moves are what make a civic fear appeal more distinctive. Fear is a painful emotion that is often “accompanied by an expectation of experiencing some destructive misfortune” (Aristotle 2006, 1382b, 130). A communicator should therefore expect her audience to resist a fear appeal. She must guard against two especially dangerous tendencies of resistance. The first comes from those who are “confident.” Like wishful thinkers, the confident “think they experience...great good fortune [and] do not think they might suffer; therefore, they are insolent and belittlers and rash” (Aristotle 2006, 1383a, 130). They will be resistant to fear appeals and reluctant to assume the responsibility for deliberation and threat-avoidance.

The confident are in danger of complacency. While Aristotle frames the following advice in general terms, it is presumably the confident who should be made to “realize that they are liable to suffering; for [he can say that] others even greater [than they] have suffered, and he should show that there are others like him suffering [now] (or who have suffered) and at the hands of those from whom they did not expect it and suffering things [they did not expect] and at a time when they were not thinking of [the possibility]” (Aristotle 2006, 1383a, 130).

It is presumably also to the confident and the complacent that Al Gore directs a powerful analogy between those who are unmoved by the threat of climate change to those who sought to appease Hitler: “British prime minister Neville Chamberlain found it inconvenient to see the truth about the nature of the evil posed by the Nazis.” Churchill, Gore explains, condemned Chamberlain’s strategy of appeasement and Britain’s signing of the Munich Agreement: “After the appeasement at Munich, Churchill said, ‘This is only the first sip, the first foretaste, of a bitter cup which will be proffered to us year by year—unless by a supreme recovery of moral health and martial vigor we rise again and take our stand for freedom’” (Gore 2006). Gore is stressing how the confident are both liable to suffering and susceptible to the sort of blind wishful thinking that may prevent them from bearing the responsibilities of action.

The second group likely to be resistant to civic fear appeals are the resigned. Aristotle conceives of the resigned as those “who have already suffered all the dreadful things possible and have become coldly indifferent to the future, *like those actually being done to death*,” or legally executed (Aristotle 2006, 1383a, 130, emphasis mine).²⁰ Those “being done to death” are presumably resigned because the outcome that they feared has now obtained. It is no longer uncertain. Therefore, they do not fear it (Gravlee 2005, 468).

However, as we have seen, resignation need not be the result of previous or current suffering. Those who are resigned may simply think that they cannot—either alone or with others—effectively avert the threat. If they are correct in this, they are rightly resigned. If they are not correct—that, is if there is a possibility that they can avert the threat, they are wrongly resigned. For the wrongly resigned, a civic fear appeal must offer hope. “[For fear to continue],” argues Aristotle, “there must be some hope of being saved from the cause of the agony. And there is a sign of this: fear makes people

²⁰ A literal translation would be “like those crucified on a plank,” which implies legal execution. Thank you to Josiah Ober for alerting me to this.

inclined to deliberation, while *no one deliberates about hopeless things*” (Aristotle 2006, 1383a, 130, emphasis mine) Aristotle’s final observation in this passage is crucial. Without it, one might well assume that just as the message about suffering should be directed specifically toward the confident the hopeful component of a civic fear appeal need only be narrowly directed at the resigned. If this were the case, a civic fear appeal would—like a good newspaper or biblical prophecy—simply attempt to “comfort the afflicted and afflict the comfortable.”²¹

Yet Aristotle seems to be suggesting that hope plays a more general role in fear appeals and should not only be encouraged in those who are resigned. To the extent that fear appeals encourage deliberation, they do this by eliciting hope. It is the hope associated with fear, rather than fear itself, that encourages deliberation (Gravlee 2005, 468–72).

How does a communicator elicit this hope? At a minimum, she must offer some reason to think that it is possible to be “saved from the cause of the agony.” She must portray the outcome as susceptible and responsive to human action. But even more, she must portray the outcome as within the *particular* power of the individuals and the political collective she is addressing. For, “we deliberate about what is in our power, that is, what we can do” and each group or polity “deliberates about what they themselves can do” (Aristotle 2000, 1112a, 42). In the case of climate change, there is preliminary empirical evidence that rhetorical strategies that elicit fear, then hope in sequence have a stronger motivational effect than those that elicit either separately (Nabi, Gustafson, and Jensen 2018).

How might a communicator elicit a sense of agency on climate change? Empirical studies of fear and hope appeals suggest that communicators invite responses that are well within the power of many individuals. In the case of climate change, these responses might include home energy conservation measures (e.g. installing solar panels), changes to consumer habits (e.g. not buying disposable plastic water bottles, getting a car with better fuel economy), and measures to “counteract” the environmental effects of one’s actions (e.g. by buying carbon offset credits). However, given what we know about the emissions reduction targets that will have to be met in order to avoid the worst effects of climate change, any rational evaluation of the response efficacy of these sorts of individual actions is unlikely to be encouraging. Absent an ambitious and powerful program of domestic, intergovernmental, and international political action, the efficacy of individual responses will be minimal.

In order to move her audience to deliberation and action, then, a communicator will not only have to give them reason to think that particular action paths will be effective and that these routes are within their power to take. She will also have to propose pathways for indirect agency through the exercise of political voice (Hart and Feldman 2014). Given the unequal distribution of political voice, particularly in the United States (Schlozman, Verba, and Brady 2012), and the known difficulties of exercising it effectively, the purveyors of civic fear appeals on climate change will be inviting their audiences to take on substantial challenges. They will have to join social movements and press for political change. This will require organization and coordination, to be sure. But it will also require courage.

The virtue of courage does not figure in the empirical literature on fear and hope appeals. This literature argues that the way to counteract resignation or complacency is to propose responses that are “easy” for audiences to undertake (Chadwick 2010; Ruiter et al. 2014; Ruiter, Abraham, and Kok 2001; Witte and Allen 2000). Yet facing our collective fears squarely and preparing ourselves for the work of responding to them effectively is not always easy. In order that an audience be prepared to meet their fears without resignation, to hope without complacency, and to face the challenges that may be required by effective responses, they will need to be imbued with courage. For Aristotle, the

²¹ Finley Peter Dunne originally used this phrase to (mockingly) describe the job of the press. It is repeated more earnestly by E.K. Hornbeck (Gene Kelly) in *Inherit the Wind* (1960).

courageous do not overcome their fear. Rather, they fear what it is rational and appropriate to fear (Aristotle 2000, 1106b, 30; 1115a-b, 48). They face the objects of their fear squarely and with careful attention. They endure the difficulties, pain, and sacrifices that squarely facing fears entails (Aristotle 2000, 1117a, 53; see also Balot 2014).

How might a climate change communicator elicit this kind of courage? One promising route would be to invite her audience to consider how they and their actions will be remembered by future generations. Churchill relied on this technique as he sought to steel his audience for the looming Battle of Britain: “Let us therefore brace ourselves to our duties, and so bear ourselves that, if the British Empire and its Commonwealth last for a thousand years, men will still say, ‘This was their finest hour’” (Churchill 1940). Obama seems to be attempting a similar move when he invites his audience at the 2015 Paris conference to undertake the kind of action that will elicit pride from future generations “when they look back and they see what we did here” (2015).

There is some empirical support for the effectiveness of this rhetorical strategy. Preliminary experimental evidence suggests that thinking about one’s legacy increases the motivation to undertake difficult preventive actions on climate change (Zaval, Markowitz, and Weber 2015). The purveyors of civic fear appeals, then, might not need to hold back from inviting their audiences to respond in ways that may not be easy. However, they must attend to the question of how best to steel their audiences to face these threats and the challenges of meeting them collectively.

Conclusion

Political fear is not popular. This is especially true now, when the politics of fear has become the currency of populist demagogues and authoritarians (Nussbaum 2018). But fear can be a rational and motivationally powerful response to climate change. I have argued that climate change fear appeals can be protected against the standard criticisms of political fear. Hope appeals, by contrast, seem vulnerable to serious motivational drawbacks in the case of climate change. We should not therefore abandon fear appeals in favor of hope appeals. Instead, we should take our bearings from Aristotle in an effort to cultivate fear more responsibly—in a way that makes room for the best aspects of hope, elicits rather than extinguishes our sense of agency, and invites rather than forecloses deliberation.

This paper raises at least two sets of questions for future research. First, Aristotle writes as if, setting aside tendencies toward confidence or resignation, fear appeals will have a largely uniform effect on all members of the polity. However, empirical findings suggest that the effects of affective climate change appeals vary by political ideology. Liberals, conservatives, and moderates respond differently and with varying strength to invocations of fear and hope (e.g. Feldman and Hart 2018; Hart and Feldman 2016; see also McCright and Dunlap 2011). How might civic fear appeals be tailored for specific audiences for maximal motivational effectiveness?

Second, I have stressed throughout the paper that climate change fear appeals need not elicit epistemic irrationality on the part of their audiences. They need not, for instance, encourage their audiences to overestimate the likelihood of catastrophic outcomes. Fearing well, I have argued, entails fearing in a way that is both epistemically and pragmatically rational—that is, fearing with an accurate enough threat assessment and in a way that leaves one motivationally prepared to act to avert the threat. Similar commitments seem to lie behind Aristotle’s conception of civic fear. But what if we were faced with empirical evidence that, at least under certain conditions, encouraging false probability assessments or misrepresenting the nature of the threat were more motivationally

effective than a strategy of complete accuracy?²² How much (if any) misrepresentation are we willing to accept in exchange for a citizenry more committed to meeting the challenge of climate change? These are debates that urgently remain to be had.

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²² For instance, Thomas Schelling has suggested that climate change communicators may have to exaggerate the threat to spur action and has implied that this may be morally permissible (Clarke 2009).

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