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Fear, Pathology, and Feelings of Agency: Lessons from Ecological Fear

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I want you to panic. I want you to act as if your house was on fire.

Greta Thunberg

This essay examines the connection between fear and the psychopathologies it can bring, looking in particular at the fears that individuals experience in the face of the climate crisis and environmental degradation more generally. We know, of course, that fear can be a source of good and ill. Fears of climate-change-driven heat waves, for instance, can spur both activism and denial (e.g., Mah et al. 2024). But as of yet, we don't have a very good understanding of *why* eco-fears, as we will call them, shape our thoughts and actions in the ways that they do. More importantly, we also don't really understand why some experiences of eco-fear can lead to depression, PTSD, and other psychopathologies. In an effort to make some progress on this front, we want to look more closely at the role that feelings of agency – our general feeling that we have enough ability to address the threats and challenges we face – play in shaping our fears.

Our discussion begins with some examples of fears felt in the face of ecological threats like climate change. These cases serve as the launch pad for our account of how feelings of agency can affect when and how we feel afraid. We then turn to develop an empirically-informed model of the ways in which fear and feelings of agency interact, highlighting how our proposal enriches our understanding of when – and why – our fears develop into pathologies. With this done, we then discuss two normative implications that we believe follow from our model. The first concerns environmental education. Here we position ourselves against those who advance a "don't scare the kids" approach to discussions of the destruction that anthropocentric ecological violence will continue to bring. Rather than shielding students from the fear that facts about climate change so often bring, we should be – in a broadly Aristotelian manner – helping students mold their fears into eco-courage. The second normative upshot concerns the growing tendency to pathologize fear in ways that can further harm already vulnerable individuals. Looking at how this issue manifests itself in the context of our model of (eco-) fear and its ties to feelings of agency not only allows us better understand the harms that this pathologizing can do, but also how we can combat it.

Before beginning, a brief comment on our terminology. Discussions about threat-related eco-emotions have focused mainly on eco-anxiety and worry (see Ojala et al. 2021 for a review of the relevant literature). However, there's often been conceptual confusion about what

phenomenon these 'eco-emotion' labels pick out. For example, while many scholars purport to be talking about eco-anxiety, their discussions seem better understood as focused on our general negative emotional responses to climate change – not just anxiety, but sadness, fear, guilt, and more (e.g., Clayton and Karazsia 2020). Others use the label "eco-fear," but seem to actually be focused on eco-anxiety (e.g., McQueen 2021). In our essay, we use the term eco-fear to refer to the emotion that is experienced in response to *imminent threats* of ecological damage, where this contrasts with eco-anxiety which we understand as the emotion the experienced in response to *uncertainty about (non-imminent) threats* to the environment (see Kurth & Pihkala 2022, Pihkala 2022 for elaboration). When needed, we distinguish between fear, anxiety, and worry, but our focus is on eco-fear.

A Puzzle about Eco-Fear: The Good, the Bad, and the Pathological

We can begin with some examples of how eco-fear can bring not just important benefits, but also real trouble. We do this in order to draw out the question that is our focus: how can we better understand why eco-fears become overwhelming or otherwise problematic?

We can start by considering the good that eco-fears can do. On this front, social scientists have studied how individuals respond when they experience, or even just learn about, the devastation that climate change is bringing. They have found not only that people feel threatened – and so afraid – but also that their fears can spur activism and efforts to combat global warming. Fear, for instance, can motivate individuals to refrain from air travel and other environmentally destructive behaviors. In this vein, reports from sociologists are rich in examples of people saying things like: "Greta made me raise my ambitions because she made me *dead scared for my future*. And I am grateful for that… I can still say to the next generation that *I did all I could* before it was too late" (quoted in Wormbs and Söderberg 2021, 320, emphasis added).

But, alas, not all occasions of eco-fear have happy endings. For instance, the sociologist Stuart Tannock has examined how individuals respond to ecological fears, finding that "one of the strongest forms of climate denial now is based not on the claim that the climate crisis does not exist, but rather on the feeling that it is *too overwhelming to think or do anything about*" (2021, 98, emphasis added). Empirical work confirms this. We see, for instance, that in comparison to liberals, conservatives who experience negative emotions like fear when hearing about climate change tend to respond with greater disengagement via denial, self-distraction, and substance abuse (Mah et al. 2024). Additionally, some may fear things which they associate with climate awareness, like having to give up fossil-intensive lifestyles, but these fears then *prevent* them from engaging more deeply with climate change. People may even fear experiencing climate emotions. As the climate activist Jack Weber explains, "fear is the primary emotion underlying climate denial and inaction. We are afraid of the anxiety we would feel if we paid attention to climate news" (2020, 77).

What's worse, in some cases, eco-fears don't just block pro-environmental engagement, but actually harm the individual who experiences them. Consider, for example, the bushfires that raged through Western Australia in 2019-2020. The fires burned 24.3 million hectares (an area larger than Finland), destroyed over 2,750 homes, and killed at least 34 people, not to mention *three billion animals* (that's not a typo: Slezak 2020). Individuals whose lives were upended by the destruction – and the intense fear they experienced as everything around them burned – are now being diagnosed with PTSD. For them, even seemingly innocent things like raindrops are triggering events that can leave them incapacitated (Schlosberg 2024).

We see similar trouble in more mundane cases, especially among young adults. As an example, consider the following excerpts from interviews conducted by the psychologist Michalina Marczak and her colleagues: "I have been quite good at not getting scared before, but in the recent months I get more scared. I don't exactly know why, but maybe because time goes by and nothing is happening. Maybe it just takes a toll on you, after some time. So, yeah, when I think about it now, I feel unrest and scared" (Marczak et al. 2021, 10) It's not just that individuals experience persistent, compounding fears about the climate crisis, but that these fears bring feelings of hopelessness, powerlessness, and dismay. Witness: "when I think about the climate situation, it's just like... it's so sad that we reached this stage that's just slipping off a cliff, or running off a cliff, yeah, and it makes me question the human goodness… But then this whole situation is just kind of... it's easier to… to… to slip into [sighs heavily] maybe despair and… losing … trust in human nature or human beings" (10-1).

So we're left with a puzzle. While eco-fears can be a source of significant good, they can also bring not just indifference and inaction, but profound harm – depression, hopelessness, PTSD, and the like. Why is this?

Getting Some Clarity: A Model of Fear and Its Connections to Feelings of Agency

As a start to an answer, let's return to Australia, this time to the floods that devastated large parts of New South Wales in 2017. Here's how one survivor – let's call her Sandra – described her experience:

> I got no warning but *the TV said evacuation* for Lismore [the area of NSW where she lived], and when I rang SES for information *I could not get through*. I needed clarification for my family and *I have three special needs kids* and *I needed help* to evacuate... *I was getting more scared* and finally got hold of SES who told me *leave now* as "we expect catastrophic loss…*your house will collapse* because it's in direct path of flood when the levy tops". I said I need help! *I was told no help for me*… [We were] condemned [to] a *horrific night of hell*. (quoted in Bailie et al. 2021, emphasis added)

While there's much to note in Sandra comments, we want to focus on how her fears about her safety and the safety of her special needs children were exacerbated by her inability to get help.

She wasn't just scared, but *felt she had no* agency—no ability to manage in the situation she was in. This feeling of lost agency then led to a vicious cycle of increased fears and a deepening feeling that the situation exceeded her ability to cope with it.

Given the extent of the fears and lost feelings of control agency that people like Sandra experience, it's no surprise that we see higher levels of PTSD, anxiety, distress, and depression in the NSW residents whose lives were upended by these events. For instance, 45% of NSW residents impacted by the flood reported probable PTSD compared to only 12% of those who were not affected (Longman et al. 2023). This isn't an isolated feature of the NSW floods, but rather a general finding that researchers see when they study the mental health impacts of natural disasters (e.g., Waite et al. 2017). But it's also important to note that the combination of fear about environmental threats and compromised feelings of agency can be problematic even when an individual's condition wouldn't meet a clinical definition of psychopathology. For instance, the political scientist Sarah Pickard interviewed 50 young environmental activists about their emotional responses to the climate crisis. She found that feelings of fear and anxiety – when combined with a sense of being overwhelmed (i.e., a feeling of compromised agency) – lead to disengagement: these experiences "prevented them from taking action" (2021: sec 3a).

What examples like these suggest is that fears are more likely to bring trouble – to, for instance, trend toward pathology – to the extent that they are accompanied by compromised feelings of agency. In what follows, we develop a model of fear and its central connections to feelings of agency. While our proposal is far from a complete account, it nonetheless sheds light on an important route by which fears can become pathological.

We start with the emotion fear, which we understand as a response to imminent threats to things we care about. When afraid, we typically undergo a strong, aversive experience that presents the target of our fear in an evaluative light—what we're afraid of is seen *as threatening*. But fear doesn't just alert us to threats, it also prompts motivations aimed at helping us *neutralize* the threat at hand. While this motivation most often manifests as the familiar fight/flight/freeze response, it can also take different forms (e.g., tonic immobility); and the resulting behavior will be shaped by, among other things, one's perception of situational factors like the details of what's threatened, how soon the threat will arrive, and what routes of response are available (Kurth 2018a). Moreover, while the behaviors that fear prompts will often be helpful, they can also be problematic. We might fight when fleeing would be the better option. Or we might find ourselves paralyzed, unable to act at all. Here the paralysis is not the "freeze" of the fight/flight/freeze response, but rather a consequence of us being so overwhelmed by the threat that we're not able to engage the behavioral response (fleeing, say) that our fear cues up.

Next, there's what we will call our feeling of agency – our perception of our ability to effectively engage with our environment. As we're understanding it, feelings of agency are part of a metacognitive mechanism that helps us (non-cognitively) assess whether we are succeeding as agents within our environments. More specifically, this mechanism is metacognitive and

epistemic in the sense that it monitors our progress with regard to our goals, providing feedback in the form of affect that helps us recognize occasions where we should tweak or even change the strategies we are pursuing (Moscarello & Hartley 2017). So, roughly speaking, when our feelings of agency are high, our actions seem (largely) effortless and error free; we feel confident in our ability to accomplish our goals and respond to challenges. By contrast, when our feelings of agency are compromised, we feel less confident – perhaps overwhelmed, even helpless – about our ability to effectively operate in the circumstances we're in. Putting this into the context of danger and the fear it provokes, one's feeling of agency is one's affectively-delivered assessment of whether one has the resources and ability to address the threat at hand (where this may include one's sense that one can control not just the threat, but also the fear one feels). Putting this into the context of danger and the fear it provokes, one's feeling of agency is one's affectively-delivered assessment of whether one has the resources and the enough ability to address the threat at hand (where this may include one's sense that one can control not just the threat, but also the fear one feels).[2]

Here's why this matters for our understanding of fear and pathology. First, given that fear presents us as facing an imminent threat to something we care about, it will (other things equal) tend to undermine our feelings of agency. Of course, fear is not the only emotional response to ecological crises that can affect our feelings of agency—frustration, sadness, and the like can too. But given examples like those from Australia which with we began, fear clearly plays a significant role. Second, our feelings of agency (and their trajectory: strengthening, weakening, or holding steady) will affect our ability to effectively channel the fear we experience. In particular, to the extent that our feelings of agency are compromised, not only will we tend to be less able to address the threat at hand, but it will also be more likely that our fears will trend pathological. So by understanding the connections between fear and feelings of agency, we get a better (if only partial) understanding how fears can become pathologies.[3]

Our model of fear, feelings of agency, and their connections to pathology is supported by several lines of empirical work. While no one of these is decisive, the combination licenses optimism in the plausibility of our model. To see this, first consider work investigating "fear appeals" – that is, communications aimed at arousing fear in order to promote caution. The most familiar examples are public service advertisements aimed at combating drunk driving. These ads aim to elicit fear through images and audio of a terrible auto accident, and with beer cans scattered in the street in order to implicate alcohol as the cause. While some work suggests fear appeals like these are not effective, the bigger picture tells a more interesting story (e.g., Tannenbaum et al. 2015). In particular, a closer look at studies of the effectiveness of fear appeals indicates not only that they can work, but that they tend to work best when they succeed in both eliciting fear *and offer individuals information about how to avoid the feared outcome* (e.g., an image of an intoxicated person calling a cab). That is, fears are unlikely to be helpful when they are accompanied by diminished feelings of agency regarding the threat at hand. But they are more likely to be useful when one is afraid and feels one can take effective action.

Granted, drunk driving fear appeals might seem to offer thin support for our model—after all, we know more about the dangers of drunk driving and how to avoid them. So it's worth noting that we find similar results for climate change focused fear appeals: efforts to elicit fear as a way to promote pro-environmental behavior are undermined to the extent that the communications leave their target audiences with compromised feelings of agency, but can be effective if suitable options for pro-environmental behavior are offered (e.g., Reser & Bradley 2017).[4]

The second line of support for our model comes from findings in trauma research. This work indicates that the combination of self-reported fear about one's safety, feelings of helplessness, and a felt lack agency with regard to one's situation are better predictors of PTSD and depression than are assessments of the objective severity of the harms experienced. This result has been found not just in the context of trauma from natural disasters, but also the experiences of survivors of domestic violence (Salcioglu et al. 2017), torture (Basoglu & Salcioglu 2011), and war (Basoglu et al. 2005). Additional research shows that interventions aimed at helping trauma survivors restore their sense of agency are effective ways to address PTSD and depression (e.g., Basoglu & Salcioglu 2011). While these trauma findings are based on correlational studies, the combination of them suggests that there's a *causal* role for compromised feelings of agency in the development of psychopathology. These trauma examples (especially war and natural disasters) are also structurally similar fears about ecological crises with regard to the underlying uncertainty about both the threat and how to respond to it. So the lessons learned from this work lend support to our proposal.

Finally, research looking at what's called one's "sense of agency" enriches the picture by pointing to a causal connection that runs in the opposite direction: from fear to feelings of agency. More specifically, this work focuses on understanding our automatic, implicit feeling that the (physical) actions we initiate, and the outcomes they have, are things we produce. In the current context, this work is interesting because research has explored how emotions affect our feeling that we are the causes of what we do and what happens. These studies suggest that, in comparison to control conditions, individuals who are made to feel afraid by the threat of a painful shock or a fear-inducing vocalization (e.g., a recording of someone saying, "Yikes!") show a significantly degraded sense of agency (e.g., Christensen et al. 2019).

Taken together, these results sharpen our understanding of the relationship between fear, feelings of agency, and pathology. More specifically, we can understand fear as a distinctive danger-avoidance mechanism, one that attunes us to imminent threats to things we care about. Feelings of agency can then be seen as a more general tool for assessing our ability to interact effectively in our environment. Combining this suggests that when fear is combined with moderate to high feelings of agency, it will tend to be healthy (i.e., non-pathological) and instrumentally valuable. But fear and *low/decreasing* feelings of agency are a sign that things have taken a turn for the worse. Moreover, while the two systems are distinct, they also interact. Fear—as a signal of imminent threats—will tend to weaken feelings of agency. Similarly, while

strong feelings of agency will tend to help one effectively direct one's fear response, compromised feelings of agency will generally undermine effective fear-driven responses.[5]

All this raises questions about what we can do to encourage better fear experiences, an issue that we will discuss in the next section. But before getting to that, it's worth pausing to consider how our model helps us make sense of the puzzle from the last section. More specifically, our model predicts that when eco-fears are accompanied by positive feelings of agency – feelings that one can do something about the environmental threat faced – they will tend to promote pro-environmental attitudes and actions. But to the extent that one's feelings of agency are compromised, one's eco-fears will be more likely to be sources of trouble, even pathology. Moreover, what people fear in the face of ecological issues will be impacted by individual personality differences and social/cultural influence (e.g. Crandon et al. 2022). Here too there's the potential for trouble as when, for instance, a climate denier's feelings of agency are undermined because they feel it's impossible to engage with climate matters in the social groups they are a part of. With this progress in hand, the balance of the paper discusses two normative implications that we think follow from what we've learned so far.

From Eco-Fear to Eco-Courage

Within environmental education circles, researchers are increasingly concerned about both how to inform children about the climate crisis and what should be done to help them manage the strong negative emotions – fear, anxiety, guilt, anger, and more – that often emerge as they come to understand the threats that anthropocentric climate change poses (Pihkala 2024; Atkinson & Ray 2024). A prominent, early line of thought on this front emphasizes the need for a protective approach. Advocated perhaps most forcefully by the environmentalist David Sobel (1996), the basic idea is that because the truth about environmental problems like climate change is so likely to elicit strong negative emotions, and because children are so unprepared to deal with these emotions, we need to approach climate change education a distinctive and cautious manner.

More specifically, Sobel maintains that rather than presenting children with fear-inducing facts about climate change (as is typically done), we should be working to get children more engaged with – and in – the environment. According to this thinking, adults presume that if children are exposed to bad environmental news before they are able to deal with it, and before they have a strong connection with the environment, they will start to avoid environmental issues and natural environments altogether. Sobel calls this "ecophobia". Although many have questioned Sobel's presumption that it's possible to shield children from distressing ecological information (e.g. Kelsey and Armstrong 2012), his proposal has been internalized by many classroom teachers. For instance, Maria Ojala has examined teachers' attitudes toward the climate change emotions felt by their students. She's found that the vast majority see these emotions, especially, negative emotions like fear, anxiety, and anger, as *irrational* – responses that should not only be discouraged, but silenced or ignored when felt (Ojala et al. 2021).

Of course, there's much that this line of thinking gets right. Our emotions can get the better of us. And we know that immersing children (and adults!) in the outdoors can help foster interest in – and concern for – the environment (e.g., Chawla 2020). But while Sobel and others are correct to emphasize these points, their alternative is too extreme. Implicit in their thinking is the assumption that fear is deeply, even inherently, problematic. We disagree. And we're not alone – the core of our concern goes as far back as Aristotle.

More specifically, on Aristotle's account, emotions undergird virtues, and fear is the emotion that undergirds courage. As he sees it, one cannot be truly courageous without also being afraid: the courageous person not only fears "things that are painful and destructive" (*EE* 1229a32-40), but "will face them because it is noble to do so and base not to" (*NE* 3.9.2-4). Moreover, facing our fears – learning to grapple with and productively channel them – is central to how we learn to be courageous. This is just the general Aristotelian maxim of learning by doing:

> what we need to learn to do, we learn by doing; for example, we become builders by building, and lyre-players by playing the lyre. So too we become just by doing just actions, temperate by doing temperate actions and courageous by courageous actions. (*NE* 1103a32–b2)

Developing this a bit, Aristotle's idea seems to be that by learning to act in the face of fear, one comes to *understand* one's fear. One comes to understand not just *when* one will be afraid, but also *how* fear affects one's attention, thoughts, and actions as well as *what* one can do to enhance or better direct its influences. Crucially, on this picture, fear is not something that one *overcomes* or gets rid of as one becomes courageous. Rather, one's fear *remains there* as an essential component of courage. What changes is one's understanding of one's fear and one's ability to better harness its effects on one's thoughts and actions. Finally, on Aristotle's account, we will often need to not only learn to temper the fears we actually experience, but also encourage fears that we don't (typically) feel. This, too, is essential to forging the right kind of link between fear and courage – these newly developed fears are essential to helping us, for instance, better appreciate unnoticed dangers or avoid acting from a foolish fearlessness.

Moving from the Aristotle of the past to the eco-emotion scholars and environmental activists of today, we see others emphasizing the importance of developing courage in the face of environmental threats. For instance, the legal scholar Valeria Vegh Weis and the sociologist Rob White note that "standing up and speaking out, especially when the protagonists are rich, powerful and dogmatic, is always going to be hard and this includes for those involved in resisting ecocide… All these struggles *require considerable courage*" (2020, 310, emphasis added). Similarly, the Extinction Rebellion activist Susie Orbach writes that "we need to accept our own feelings of grief and fear … In doing so we will build a movement that can handle the horrors we are facing" (in Stuart 2020: 494) and, as the NASA climate scientist Kate Marvel

maintains, “We need courage, not hope. Grief, after all, is the cost of being alive. … Courage is the resolve to do well without the assurance of a happy ending” (in Wiseman 2021, 10).

Though not typically made explicit, observations like these clearly bring a broadly Aristotelian account of courage into the conversation about how we should respond to pressing environmental threats like climate change. But while noting the importance of “eco-courage” (as we will call it) is important, this is typically where the conversation stops.[6] That’s a problem. Without a better understanding of what eco-courage is, how it is related to emotions like fear, and what we can do to cultivate it, we’re missing what really matters. As a first step toward a more complete account of eco-courage, we aim to combine insights from Aristotle’s account of courage with our model of fear and feelings of agency. Not only does this help us fill in some of the gaps in current thinking about eco-fear and eco-courage, but it also provides an alternative to the “don’t scare the kids” proposal that we get from Sobel and others.

We begin by endorsing two Aristotelian ideas.[7] First, we agree not just that fear is central to what eco-courage is, but also that being afraid in the face of things like the climate crisis is central to our ability to become more eco-courageous. Second, we also agree that in order to become more eco-courageous, we need to engage with our fears. That said, we find that Aristotle’s “learn by doing” maxim and the quick examples he gives to illustrate the idea don’t say enough about how we should go about engaging with our fears. It’s here that our model can help. As we’ve seen, the way that we respond to imminent threats is shaped by both our fear and our feelings of agency. This, in turn, suggests that there are two (complementary) ways that engaging with our fears can promote courage. First, we can work to shape our emotion – our fear – for the better. Second, we can work to enhance the resilience of our feelings of agency.

In order to better see what deploying these strategies might look like, consider some examples where one would want to become more eco-courageous.

> (1) Situations where *intense climate fears* leave one so overwhelmed that one is unable to engage in pro-environmental action (e.g., protesting, encouraging collective action).
>
> (2) Situations where climate fears, in combination with *feelings of hopelessness or powerlessness*, leave one unable to engage in pro-environmental action.
>
> (3) Situations where, because of a *lack of fear* or a *mutation of one’s fears into vices* like cowardice or denial, one fails to recognize (much less act to address) the imminent danger posed by, say, a new plan to lower fuel-efficiency standards.

With these cases in hand, we’re now positioned to see how the two strategies for developing eco-courage – efforts aimed at fear or feelings of agency – differ.

Deploying the first strategy. In cases like (1) and (3), we have situations conducive to the first strategy where we aim to shape our fear for the better. More specifically, the idea is that by (say) exposing oneself to news of imminent climate threats, one can come to better understand

not just what one will be afraid of, but also how one's fear affects one's attention, thoughts, and actions. One can (perhaps with the help of others) then use this understanding to help oneself assess things like whether one's fears are outsized and, if so, how to address them. In so doing, one is working to change one's emotional disposition – one is working to *change fear itself*.

At a practical level, there are various (complementary) ways that this could be done. For type-(1) cases, where intense fears block action, reappraisal techniques that help individuals down-regulate their fear show promise as a way to avoid paralysis that blocks pro-environmental motivations (Hamilton 2020). In a similar way, simpler efforts to engage in, say, breathing exercise to dampen intense fear can help (Doppelt 2016), as can journaling activities where one both writes about past episodes of intense eco-fears and reimagines how one could have acted more courageously (Weber 2020). Often a prerequisite for these kinds of methods is work which helps people to receive validation for their fear, normalize it, and explore it with trusted others (Greenspan 2004; Weber 2020).

But efforts to change when and how one feels eco-fear can also be used in type-(3) cases where one fails to be afraid when one should. Here traditional eco-emotion-framed "fear appeals" can help, especially (as we saw) when they include actionable suggestions about how to respond to an environmental threat (e.g., providing information about how to get involved in a climate change advocacy group). More technologically sophisticated versions of this could be developed by following in the footsteps of efforts that use VR simulations to induce fear in order to combat aggressive driving (Cutello et al. 2021). Additionally, psychosocial support groups could help people to move from, for instance, more socially-focused climate fears (e.g. fearing that one's denialist friends will treat you badly if you show climate awareness) to engaging with the fundamental climate impacts (e.g. the fires and floods that have recently plagued Australia) (Lertzman 2019; Weber 2020) Techniques like these can also encourage pro-environmental action in individuals who aren't concerned—aren't scared enough—to act in meaningful ways (recall Thunberg from the epigraph).

Deploying the second strategy. In type-(2) cases – where the culprit is less the fear and more a compromised sense of agency – the second strategy seems a better fit. Here the aim is not to change the fear (at least not directly), but rather to focus on enhancing feelings of agency. As we saw above, work with trauma victims suggests that forms of what's called Control-Focused Behavioral Therapy (a treatment protocol that uses a distinctive type of guided exposure) can help individuals regain a sense of agency with regard to their fears. For instance, someone with PTSD from an earthquake can, through guided practice, come to see that they have the power not just to leave the room they were in when the earthquake occurred but also the power to *come back in* (Basoglu & Salcioglu 2011). While strategies of this sort have not received much attention in the context of shaping eco-fears for the better, the work of the environmental activist Jack Adam Weber emphasizes the importance of raising what he calls one's "fear-mark" – one's ability to retain a sense of agency in the face of climate fears. As he explains, "the higher our fear-mark, the more effective we are at interfacing with climate chaos. Such courage grows with

practice and support" (2020, 75). Here, too, techniques that help mellow intense fears can be helpful insofar as they can help individuals shore their feelings of agency (e.g., breathing exercises or saying to oneself: "it's understandable that I'm afraid, but I can handle it") (Weber 2020, 75-102; Greenspan 2004, 197-203).

In a similar vein, strategies that seek to leverage the power of group dynamics can also be effective. We see this in the observations of the climate activist Anna Rose: "courage inspires courage. … So many people I meet have become active on climate because they saw someone step out of their comfort zone and risk something" Newby (2021: 42). While Rose seems to be focusing on serendipitous occasions of courage prompting more courage, there are likely ways that occasions like these can be more actively promoted. For instance, strategies within the "pedagogies of discomfort" encourage students to move outside their comfort zones, but do so within structured, supportive environments that allow them to critically engage with their thoughts, feelings, and inclinations (Boler & Zembylas 2003). So, for instance, the social work scholar Vivienne Bozalek and her colleagues developed a set of conversations about the legacies of apartheid among a group of racially and socio-economically diverse university students in South Africa. They found that by encouraging students to reflect on, and talk about their hopes and fears for post-apartheid South Africa, many were able to "develop a sense of…agency" (Bozalek et al. 2013, 9). While pedagogies of discomfort have traditionally been focused on educating for social justice, there's increasing interest deploying these tools in the context of climate change education and advocacy (Kurth & Pihkala 2024, Ojala 2016).

Summing up, we can now see how thinking about eco-fears within a broadly Aristotelian framework provides an attractive alternative to the more skeptical, cautious approach of scholars like Sobel. Moreover, combining Aristotelian insights about how to develop courage from fear with our empirically-informed model of fear delivers a richer account of how we might structure efforts to promote eco-courage in our children and in ourselves. This, in turn, could launch a virtuous cycle where, as the activist Anna Rose points out, occasions of eco-courage can inspire more.

A Looming Threat: Pathologizing Eco-Fears and Stigmatizing the Vulnerable

Even if we agree that the link between *experiences* of fear and pathology is weaker than researchers like Sobel suggest, the connection between *labeling* fears as pathological and subsequent harms represents a more significant source of concern. After all, it's well known that marking someone as, say, a depressive, can bring painful stigmatization, as can less direct labelings of individuals of the sort that we see when a person's fears or anxieties get marked as "inappropriate," "excessive," or otherwise misplaced (Kurth 2022a). But our discussion here suggests a further cause for concern: pathologizing fears, especially in ways that stigmatize, can undermine feelings of agency.[8]

As with the above, looking to eco-fear is instructive, for there's no shortage of examples where pathologizing language is used to describe eco-fears. And in many cases, this pathologizing talk seems *intended* to stigmatize the individuals it's directed toward. For instance, we have editorials in prominent newspapers with titles like this one from *The Telegraph*, "Climate Anxiety is Driving the West Into Dangerous Mass Hysteria," which was accompanied by the pull quote: "Enough with the fear and loathing. If this is indeed a crisis, we should deal with it like grown ups" (Daley 2020). Moreover, recall the research of the psychologist Maria Ojala discussed above; it reveals that skepticism is the *prevailing response* that many of the classroom teachers that she has studied have to the fears that their students experience when learning about the climate crisis.

This pathologizing is problematic in a variety of ways. More obviously, these labels – however mistaken and misapplied – can still be internalized in ways that spur the development of pathologies or non-pathological, but nonetheless difficult, feelings. These labelings can also lead others to develop negative attitudes toward those who are the targets of the labeling.[9] On this point, consider how the climate activist Tori Tsui describes her experiences. She found not only that she was frequently ridiculed, scapegoated, and criticized for campaigning against the injustices of climate change, but also that this targeting severely undermined her mental health (Tsui 2023). Our account sheds light on a probable diver of her troubles: being constantly "branded disruptive, dangerous, delusional and irrational" (2023, 39), undermined her feeling of agency, her sense that she could accomplish her goals.

So what can be done? At one level, the problems here reflect deep, systematic issues – sexism, racism, politics of hate, and the like – and so call for large-scale structural solutions. We don't intend to enter that discussion here (but see, Kurth 2022a, Kurth & Pihkala 2024, and Raymond et al. 2014 for discussion of how progress might be made). Rather, in what follows, we focus on a few strategies that have promise for bringing local change by bolstering feelings of agency.

As an easy first move, we can do more to publicly acknowledge occasions of well-attuned eco-fear and eco-courage, and to testify to the interconnections of fear, courage, and agency (noting, for instance, that courage is not absence of fear, but rather the ability to *withstand and act on it*). Public affirmations of this sort not only function to commend the individual whose fear or courage is highlighted, but also work to both challenge problematic beliefs and norms about what the "appropriate" emotion is and offer a better, agency-affirming model. Here consider the environmental studies scholar Jennifer Atkinson who has published essays with titles like, "Addressing climate grief makes you a badass, not a snowflake" (2018).

Conclusion

While our focus has been on eco-fear, much of what we say presumably holds for fear more generally. If that's right, then how we experience fear (in general) is intimately connected to the

agency that we feel we have in the situation we're in. This would then have corresponding normative implications for how we ought to cultivate courage by way of engaging with our fears as well as the strategies we should adopt in order to undercut the damage that pathologizing our fears can do.

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[2] So understood, feelings of agency are part of a larger set of metacognitive feelings (e.g., feelings of doubt, feelings of knowing) that work to assess and regulate our thoughts and actions. For discussion, see Proust 2009; Kurth 2018b.

[3] Two points of elaboration. First, we take fear and feelings of agency to be *distinct* elements of fear experiences. In so doing, we differ Frédérique de Vignemont (2024) and others who understand the content of fear is (roughly): I’m in danger and lack agency. We think our model (where fear is just about danger) fits better with research on fear–e.g., fear is a domain-specific response, but feelings of agency are domain general; fear and feelings of agency appear to be underwritten by distinct neural mechanisms (Kurth 2018a). Second, Innocenti et al. 2023 develops a model of the connections between eco-*anxiety* and *feelings of self-efficacy* that not only complements our proposal about (eco-) *fear* and feelings of agency, but that also meshes with findings about the close connections that we see between (eco-) anxiety and (eco-) fear (e.g,. Kurth 2018a, Kurth & Pihkala 2022, Pihkala 2022; Pihkala 2020).

[4] Of course, that a fear appeal succeeds in motivating pro-environmental behavior does not mean that the resulting action is enough, even if shared by others, to address climate change; but if there are pathways to agency, people are at least more likely to act and to be able to channel their fear constructively.

[5] The relevance of compromised feelings of agency for our understanding of pathology is unlikely to be just a feature of fear. Lost feelings of agency – and a desire to regain it – are a mark of other conditions like eating disorders. Speaking of her own battles with bulimia, the world champion cross-country skier Jessie Diggins explains, the disorder is “not at all about food or your body. It’s about looking for a feeling of control when you feel like you have none in your life” Graham 2024).

[6] The work of Miriam Greenspan (2004), Jo Hamilton (2022) and Jack Adam Weber (2020) are notable exceptions and our thinking on these matters has benefited from the insights of these authors.

[7] While one could accept the whole of an Aristotelian account of virtue and its development, we do think that’s neither necessary nor advised. See Kurth 2021, Kurth 2022: Chap 8 for discussion.

[8] Intense ecological emotions are real and often debilitating; they are experiences that need to be addressed carefully and respectfully, not dismissed (as is too often the case) as irrational or insignificant. Though it won’t be our focus, it is also worth noting that having a label like eco-fear or eco-anxiety can be extremely beneficial – a tool that helps individuals better understand and cope with what they’re feeling.

[9] There are further problems. Calling a distressed climate activist a “snowflake” or saying she should just “get over” her fear can – and often does – amount amounts to a form of affective injustice (Srinivasan 2018) or emotional persecution (Kurth 2022a) where the person’s emotions aren’t taken seriously or are (deliberately) used against them.