

How I Learned to Stop Worrying and Love the Eco-Apocalypse: An Existential Approach to Accepting Eco-Anxiety

Perspectives on Psychological Science
1–14

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DOI: 10.1177/17456916221093613

www.psychologicalscience.org/PPS



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Abstract

Climate crisis presents a near-term existential threat to the human species, one that society has neither the physical nor psychological infrastructure to manage. Eco-anxiety increases as awareness about climate crisis spreads. Despite an urgent need for resources on how to help people cope with the psychological ramifications of climate crisis, there is little literature that both addresses people's apocalyptic fears and takes the scientific bases of those fears seriously. In this article, I synthesize research on existential psychology, Acceptance and Commitment Therapy, grief, and end-of-life care to present an original perspective on how people, individually and collectively, can become psychologically resilient to climate crisis. First, I establish that death anxiety underlies eco-anxiety. Second, I demonstrate that preparing psychologically for eco-apocalypse requires people to cultivate death acceptance. Finally, I illustrate how commitment to palliative values can enable people to live rich and meaningful lives despite their most likely imminent end.

Keywords

eco-anxiety, existential psychology, climate change, Acceptance and Commitment Therapy, palliative care

The last 40 years have seen a shift in the way people imagine apocalypse. The nightmare visions of a world lain waste by nuclear winter that dominated the Cold War era have been replaced by fever dreams of desertification and drought, storm surges and rising seas, forests on fire, and skies black with soot and smog—images associated with the slower but more implacable ecological collapse called “climate crisis” (Lifton, 2017; Marshall, 2011). The most common name given to this “chronic fear of environmental doom” is “eco-anxiety” (Clayton et al., 2021). Young people, who have the most to lose from the long-term effects of climate crisis, fear those effects most acutely (American Psychological Association, 2018; Clayton & Karazsia, 2020). Ninety-one percent of Americans ages 16 to 25 are worried about climate crisis; 46% endorsed the idea “humanity is doomed,” and 45% reported that their distress negatively affects their day-to-day functioning (Hickman et al., 2021). Approximately 50% of American children are afraid climate crisis will cause the Earth to be uninhabitable by the time they grow up (Hörnfeldt, 2018).

The people who are most aware of climate crisis, either through direct experience (Beaglehole et al., 2018) or secondhand knowledge (Lee & Lee, 2019), also tend to be most anxious about it; climate scientists and activists express higher levels of fear, grief, and hopelessness than anyone else (Clayton, 2018; Pihkala, 2020).

In 2018, the United Nations (U.N.) released a comprehensive report on climate crisis that stated the world had only 5 years to pool its scientific and economic resources to overhaul its energy infrastructure, end pollution, and mass-produce greenhouse-gas sequestration technology (Intergovernmental Panel on Climate Change [IPCC], 2018). If it did not, the Earth would warm by 2 °C—the temperature that divides a potentially livable future from one likely to cause the collapse

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of industrial civilization—by 2050 (IPCC, 2018; Wallace-Wells, 2019). Other groups of scientists consider the U.N.'s analysis too optimistic. The U.N.'s projections omitted the effects of climate-warming feedback loops such as methane release from the permafrost and Arctic Ocean and the “albedo effect,” in which melting ice caps cause global temperatures to rise by reflecting progressively less sunlight (European Academies Science Advisory Council, 2018; Wallace-Wells, 2019). Moreover, their models relied on sequestration machines removing pollutants from the atmosphere, a technology that, at present, does not exist (“Why Current Negative-Emissions Strategies Remain ‘Magical Thinking,’” 2018).

Whether one chooses to believe the more optimistic or more pessimistic predictions, the type of mobilization the U.N. stated was the only hope of averting climate catastrophe has, unequivocally, not occurred. As a result, UNESCO, UN-Water (2020) and the World Bank (2016) predicted global demand for water will outstrip supply by 40% by 2030 and that more than 60% of the world's population will be without access to clean drinking water by 2050. Drought causes famine, drought and famine cause refugee crises, and these combined threats along with increased extreme weather events, wars over diminishing resources, and innumerable other climate-crisis-driven disasters beyond the scope of this article's discussion could initiate societal instability more than sufficient to cause the complete collapse of industrial civilization (Scranton, 2018; Stoerk et al., 2018; Wallace-Wells, 2019). If these assertions arouse in you a sense of denial, defensiveness, or terror, you are now experiencing eco-anxiety.

The pervasive distress associated with fears about the future and the specific traumas associated with climate disasters and economic collapse will cause an increasing need for mental-health resources over time (Clayton et al., 2021; Pihkala, 2020). The United States is not equipped to meet those needs, given that mental-health services are already underfunded and inaccessible to many who require them (Walker et al., 2015). Moreover, at least 50% of mental-health practitioners reported feeling unprepared or unable to discuss climate crisis with clients (Seaman, 2016). It is not difficult to understand why therapists would struggle to treat eco-anxiety. Eco-anxiety, after all, consists of fears that are simultaneously catastrophic and rational (Grose, 2020). What would assuage the anxiety of individuals who have scientific evidence to support their fear the world is ending? What course of action would allow individuals to overcome a problem as massive and complex as climate crisis? What can any one person do when faced with apocalypse? These questions are, at their core, existential questions. Therefore, existential psychology, the field of psychology that studies the

experience of meaning in life despite the inevitability of death, may best be able to answer them.

Although it may be too late to build the physical infrastructure that is needed to mitigate the physical damages of climate crisis, there is time to build a psychological infrastructure able to withstand the winds of eco-apocalypse. “Psychological infrastructure” refers to providing people with the knowledge and skills they need to cope with the psychological distress associated with climate crisis and information about where they can turn when they have trouble coping. If people have a strong psychological infrastructure, they would be able to answer “yes” to questions like the following: Do most parents know how to talk to their children about climate crisis? Do most people have places in their communities where they can talk about climate crisis and be supported? Do most mental-health practitioners know how to help people dealing with eco-anxiety? At present, the answer to each of these crucial questions is “No.”

The fact that climate crisis presents a mental-health crisis that people are not at all prepared to meet has already been established in other literature (Davenport, 2017). This article is, however, the first to detail why viewing climate crisis through the lens of existential psychology and approaching eco-anxiety with lessons from existentially based therapies is the best way to help people, individually and collectively, cope with the psychological stressors associated with climate crisis. The aim of this article is to outline the steps necessary to build a psychological infrastructure that will allow people to be resilient to climate crisis. To do so, I build on the literatures of existential psychology, Acceptance and Commitment Therapy (ACT), grief, and end-of-life care.

First, in this article, I reframe eco-anxiety as a manifestation of death anxiety and explain how Western culture's fear of death paradoxically contributed to bringing society to the brink of death. Second, using the framework of ACT, the most empirically supported of the existentially based treatments, I discuss how to prepare psychologically for an uncertain future. Meeting the future with equanimity will require people to cultivate acceptance that their time on Earth is much more limited than they would like and that their death is inevitable. It will require people to grieve, both for the planet and for themselves. Last, it will require people to commit themselves to values that matter even in the face of possible extinction—mindful, palliative values—such as easing suffering and loving life. In this way, people can answer the existential threat of climate crisis with an existential solution: to create a “hospice for humanity” so people may help each other live as fully as possible for however long they have left.

Terror Management and the Apocalypse

As public knowledge about the science of climate crisis has increased, the public's denial, apathy, and lackluster prevention efforts have baffled climate scientists (Lifton, 2017). Such unhelpful responses to such an urgent threat have been variously attributed to widespread corruption, acclimation to any change as "the new climate normal," and people's general unwillingness to make short-term sacrifices to obtain long-term benefits (Lifton, 2017). Although each of these explanations has truth to them, they are incomplete. A more complete account of people's lack of rational responses to the threat of climate crisis may have less to do with climate crisis itself and more to do with what it represents: death, on both an individual and collective level.

In *The Denial of Death*, Ernest Becker (1973) proposed the sweeping cultural theory that on an unconscious level, everyone is terrified of death. People are so terrified, he said, that the primary purpose of culture is to help them forget they will one day die. Most of what occupies the majority of people's day-to-day lives is not strictly necessary for survival. The pursuit of pleasure and of achievement, the things people do to feel good in the moment and to feel good about themselves, keeps their minds off mortality. Even stressors have their place. Workaday worries such as meeting deadlines, paying off debts, and maintaining relationships are often people's most potent distractions. People substitute these smaller, more solvable concerns for massive, insoluble, existential anxieties.

Of course, people can only distract from death for so long, and when they cannot distract, they seek to reassure. To do this, people engage in what Becker (1973) called "immortality projects." An immortality project is anything that makes people believe they can, in some capacity, overcome death. These projects might take the form of religious beliefs in literal immortality through afterlife or the form of symbolic immortality, in which people figuratively live on after death by contributing to or being part of a larger symbolic entity—an organization, a bloodline, a movement, a nation—that they believe will outlive them.

Although critics have spoken against the seeming unfalsifiability inherent in the ability of Becker's (1973) theories to relate anything in life to the avoidance of death (Leary & Baumeister, 2000), psychologists who study how people cope with death anxiety, known as terror-management theorists, have found robust support for Becker's claims (Greenberg et al., 1986; Pyszczynski et al., 2006). When caused to think about their own deaths in an experimental setting, people tend to react by holding more strongly to their preexisting worldviews (Baldwin & Wesley, 1996; Greenberg et al., 1990,

1995; Harmon-Jones et al., 1997; Kashima et al., 2004), becoming more antagonistic to people they perceive as being part of opposing outgroups (Baldwin & Wesley, 1996; Dechesne et al., 2000, 2003; Greenberg et al., 1990), and engaging in self-esteem-promoting behaviors (Dechesne et al., 2000; Mikulincer & Florian, 2002).

Studies have found these responses persist even when they are self-destructive and paradoxically increase people's chances of dying. In one experiment, imagining their future deaths caused participants who viewed driving as a source of self-esteem to drive faster and more recklessly in a driving simulation (Ben-Ari et al., 1999). In another study, when risk-taking was viewed by participants as enhancing their self-esteem, mortality salience increased the general appeal of a wide range of potentially life-threatening behaviors, including injecting heroin, skydiving, and ski jumping (Hirschberger et al., 2002). Likewise, studies have shown that increasing mortality salience increases people's willingness to sacrifice their lives for nations they feel patriotism toward (Routledge & Arndt, 2008) and causes they believe in (Caspi-Berkowitz et al., 2019).

People react in these same self-destructive ways when exposed to threatening information about climate crisis. Several studies replaced the standard mortality-salience prompts with climate-crisis-salience prompts and demonstrated that thinking of climate crisis also tends to promote ethnocentrism (Uhl et al., 2017), increase aggression toward out-groups (Fritsche et al., 2012), and elevate levels of anxiety-compensatory consumerism (Akil et al., 2018). Likewise, thinking of impending natural disasters directly increases death anxiety, which people often attempt to manage by engaging in behaviors that promote the illusion of agency at the expense of real safety, such as ignoring evacuation warnings in favor of staying in houses directly in the path of a hurricane (Atalay & Meloy, 2020). Such effects hold true even among people who do not espouse environmental values, which shows that one need not be an environmentalist or even, necessarily, believe in climate crisis to be subconsciously affected by eco-anxiety (Akil et al., 2018). The empirical evidence that people enact almost identical terror-management defenses in response to both mortality- and climate-crisis-salience bolsters what psychologists such as Panu Pihkala (2018) and Anoushka Grose (2020) have asserted: Eco-anxiety is a form of death anxiety.

This is not to suggest that everyone is always experiencing eco-anxiety. Explicit eco-anxiety, as measured by the Hogg Eco-Anxiety Scale (Hogg et al., 2021) or the Climate Crisis Anxiety Scale (Clayton & Karazsia, 2020), can wax and wane just like other forms of anxiety. It is conceivable that people who are completely convinced climate crisis is a hoax, who are sufficiently

oblivious to science and current events, who are utterly unconcerned about the future, or who have faith in the salvational abilities of new technologies will never consciously experience eco-anxiety—until, of course, they awake with the water at their door. Nevertheless, if eco-anxiety is death anxiety, then people do not need to be aware of it to experience its effects. It is simmering beneath the surface of society, shaping how people think and driving them to act against their own long-term interest.

In the framework of terror-management theory, people's confusing reactions to climate crisis become comprehensible. Generally, people tend to deny the validity of any research that suggests their lives are in danger (Kunda, 1987). In Western societies, in which materialistic values dominate, mortality salience tends to lead to more conspicuous consumerism (Kasser & Sheldon, 2000; Mandel & Heine, 1999). Increased consumption of material goods requires greater use of natural resources and a greater carbon footprint, hastening the progress of climate crisis (Vlek & Steg, 2007).

Terror-management theory also predicts varied reactions to climate crisis by different groups in Western society according to their different worldviews. Pro-fossil-fuel conservatives might yell “Drill baby drill” at a national convention and continue to insist that climate crisis is unrelated to human activity (Dickinson, 2009). On the other hand, pro-environmental liberals might act as if their support for deals such as the Paris Climate Accords gives them a moral license to behave wastefully and ignore still-looming environmental threats (Dickinson, 2009). People's defensive reactions to climate crisis paradoxically spur or do too little to mitigate climate crisis, prompting people to double down on their unhelpful responses, which increases the threat of climate crisis still further in a feedback loop until people find themselves just where society is now: standing at the edge of an ecological apocalypse (Dickinson, 2009).

The main difference between facing one's own individual death and the death of all humans, from a terror-management-theory perspective, is that the former still allows people the comfort of symbolic immortality, whereas the latter does not. Striving to secure a legacy, to make the world a better place for future generations, no longer makes sense when there may be no future generations. The threat of human extinction, therefore, subsumes and magnifies the terror of ordinary death and, as a result, magnifies people's defensive reactions to death. When the entire world expects apocalypse, they can expect ideological rigidity, affiliation with ideological in-groups, and aggression toward ideological out-groups to be amplified worldwide. One of the world's foremost researchers on the psychology of potential apocalypses, Robert Jay Lifton, argued that

the world saw these effects play out in the paranoia, pointless wars, and competitions for nationalistic self-esteem of the Cold War (Lifton, 1996) and that these effects will be worse with climate crisis (Lifton, 2017).

Although nuclear war remains a profound threat, it has been both eclipsed and, to some extent, subsumed into the larger narrative of human-engineered ecological collapse (Lifton, 2017). Lifton (2017) provided two reasons for why people's fear of climate crisis waxes while their fear of nuclear war wanes: First, people feel they have more agency over nuclear apocalypse than eco-apocalypse. Even if the average person can do nothing to prevent missiles flying, a person still chooses whether or not to press “Launch.” Nuclear holocaust is a single event that has not happened yet and need not ever have to. Climate crisis is a process already underway. People made choices that led to climate crisis occurring and continue to make choices that speed its progress. Individuals contribute to it simply by existing. Although climate crisis was manufactured as assuredly as the atom bomb, the process is so drawn out across temporal and geological scales and involves so many natural feedback loops that it is perceived as far more psychologically distant than nuclear war (Fleury-Bahi, 2008). This psychological distance and the fact that climate crisis is viewed as a threat of omission while nuclear war is viewed as a threat of commission make the former seem out of human hands (Kahn et al., 2022). Second, climate crisis is more frightening than nuclear war simply because it poses a far greater threat. Although some may disagree with him, Lifton (2017) believes it comforts people to know the environment would eventually recover from nuclear winter. Life, in some form, would continue, even if no humans were around to witness it, whereas climate crisis could conceivably carry on until Earth becomes as toxic as Venus or as barren as Mars (Strona & Bradshaw, 2018).

Climate crisis is profoundly threatening to both people's literal and symbolic selves, and their terror of this threat has the potential to spawn intra- and international hatred and violence. Although there may be little people can do about climate crisis, there are tools to help them manage terror management and suffer less from its effects.

From Avoidance to Acceptance

If thinking about death increases the self-destructive threat posed by people's psychological defenses, it raises a question: What good can come of talking of eco-apocalypse? If tomorrow people may go extinct, why not eat, drink, and be merry until then and, insofar as it is possible, put such unpleasanties as death and climate crisis out of mind? Although it is true

depressants, such as THC (Nagar & Rabinovitz, 2015) and alcohol (Ein-Dor et al., 2014), can make one “comfortably numb” and provide a temporary buffer to death anxiety, reviewing the literature on experiential avoidance will demonstrate why long-term use of distractions from anxiety-arousing subjects is a bad idea.

In general, engaging in experiential avoidance (a type of avoidant coping), in which people attempt to suppress or distract themselves from unpleasant thoughts, feelings, and situations, leads to far worse mental- and physical-health outcomes than experiential acceptance (a type of approach coping), in which people accept adverse circumstances and the uncomfortable cognitive and emotional reactions that accompany them and then figure out a course of action to take from there (Chao, 2011; Dawson & Golijani-Moghaddam, 2020; Eisenberg et al., 2011; Kashdan et al., 2006; Nahlén Bose et al., 2016). “Control-agenda theory,” an important part of ACT (Hayes & Lillis, 2012), explains why experiential avoidance is so dangerous. The control agenda is the very natural effort to avoid topics and situations that may make people feel unpleasant emotions. The problem with the control agenda is not only that it fails to prevent distress for long but actually, through a cognitive process known as the ironic-process effect, increases the frequency of undesirable thoughts and feelings over time (Gross, 2002; Wegner, 1994). The resulting escalating intrusion of the experiences people had been attempting to avoid causes them to invest more mental resources into the control agenda, setting off a feedback loop in which they give progressively more ground to anxiety, spending ever more time and energy cordoning off anxiety-arousing areas of existence until the space they have left to live in is claustrophobic and cramped. To avoid feeling bad, people deprive themselves of opportunities to feel good and end up suffering more from their own efforts to control anxiety than from the feelings of anxiety itself (Eifert & Forsyth, 2005). Even activities people ought to genuinely enjoy become tainted when used as distractions, leading them to enjoy less and less (Gross & John, 2003; Kashdan & Steger, 2006) and feel increasingly inauthentic over time (John & Gross, 2004). The longer you have been numb, the more it hurts when circulation returns.

The negative effects of avoidance are even greater at the societal level. Sociological studies have found that in many communities threatened by climate crisis, social pressure to avoid talking about climate crisis mounts along with the magnitude of the threat, which causes eco-anxiety to increase over time (Norgaard, 2011). From the perspective of bereavement researchers, eco-anxiety serves the important function of prompting people to begin to grieve (Comtesse et al.,

2021). Grief is not only the experience of painful emotions, such as anxiety, hopelessness, guilt, and despair, in response to a past or anticipated loss; it is also the process of trying to adapt to and make meaning from that loss (Gillies & Neimeyer, 2006). When people can process the emotions of grief and succeed in integrating loss into a coherent system of meaning, they are the most likely to recover from grief and experience post-traumatic growth, leaving them more psychologically resilient (Neimeyer et al., 2010). Unfortunately, because Western culture seeks to deny death and shut down discussions about climate crisis, grief for one’s future death, for the human species, and for the planet are all disenfranchised (Doka, 2002).

Grief becomes disenfranchised when it is not socially sanctioned, cutting grievors off from the social support they need to process and make sense of loss, leading to feelings of alienation that further increase the burden of grief (Doka, 2002; Kastenbaum & Moreman, 2018). The alienation these grievors experience is the reason why disenfranchised grief is significantly more likely than other forms of grief to develop into complicated grief (Kastenbaum & Moreman, 2018; Neimeyer, 2006), a psychological disorder in which bereavement results in the loss of coherence, purpose, and hope in life (Neimeyer et al., 2010). It is dangerous, therefore, for a form of grief becoming as exponentially prevalent as “eco-grief” to remain disenfranchised (Cunsolo & Ellis, 2018; Cunsolo & Landman, 2017; Davenport, 2017).

Although the individual and collective consequences of dodging the eco-apocalypse discussion are undeniably negative, the question remains of whether people really want to know about impending societal collapse. As extreme weather events and climate-crisis-driven resource scarcity become increasingly common, people’s ability to remain in denial will rapidly diminish. Yet, while the option remains, one could argue people’s desire to remain ignorant should be honored. Surprisingly, though, if collective death is at all like individual death, people do not believe ignorance is bliss. There is no question people in the West live in a deeply thanatophobic culture in which most people go to almost pathological lengths to avoid the subjects of death and disaster (Kastenbaum & Moreman, 2018; Kübler-Ross, 2002). Nevertheless, when asked if they would want to know if they had only 1 year to live, 74% of people said they would (Harding et al., 2013). According to one large analysis, people’s commonly expressed desire to die in their sleep does not mean they want their deaths to be a surprise (Sanderson et al., 2019). Rather, it represents a wish to die painlessly. According to the same study, most people want to die only after having the chance to live a fulfilled life, say goodbye to their loved ones, and put their

affairs in order. People want as much control over their deaths as possible (Sanderson et al., 2019). Hence, 85% of terminal cancer patients want to know as much about when and how they will die as they can (Fallowfield et al., 2002).

Until the 1960s, best medical practice dictated that doctors never inform patients they are dying (Nuland, 1995). Today, although many doctors still find it difficult to frankly discuss death with terminally ill patients (Gawande, 2017; Hak et al., 2000), medical professionals recognize that giving patients false hope does more harm than good (Hancock et al., 2007; Kersten et al., 2012; Van Laarhoven et al., 2011). Even people with only days to live have decisions to make. They have affairs to put in order and choices about how they want to use the time they have left.

One of the most crucial decisions terminally ill people must make is about the balance they want to strike between quantity and quality of life (Clarke, 2020; Gawande, 2017): “At what point should I opt out of medical procedures aimed solely at extending my life and enter palliative care to focus on experiencing the remainder of my life as fully as possible?” People cannot make the best decisions about end-of-life care if they are not thinking realistically about their situation, whether because of their own unwillingness to accept the facts or because they have been misled to believe they might survive when they will not. Such terminally ill patients may expend great time and effort seeking “miracle cures,” such as prayer or dandelion tinctures, that do nothing to extend their lives but do squander the time they have left to spend with their loved ones, act in accordance with their values, and live in such a way that from their deathbeds, they can look back on their final months with satisfaction and without regret (Kastenbaum & Moreman, 2018). ACT, a modality bridging the divide between the existential and behavioral, teaches people how to embrace these opportunities and make the most of the slings and arrows of misfortune.

The first step is to stop trying to control anxiety and, instead, accept it as an unavoidable aspect of existence. ACT’s novel but intuitive strategy of “learning to drop the fight” with thoughts and feelings is what has made it one of the most efficacious interventions for anxiety, depression, chronic pain, and a wide array of other maladies (Ruiz, 2010). It has been used to treat death anxiety (Arch et al., 2020; Davazdahemami et al., 2020; Kolahdouzan et al., 2020) and improve the quality of life of terminally ill patients (Hulbert-Williams et al., 2021; Rost et al., 2012; Wells-Di Gregorio et al., 2018), successes that suggest it would be well-suited to help people cope with eco-apocalypse.

Acceptance, as ACT teaches it, consists of both cognitive and affective components. To practice cognitive

acceptance is for people to evaluate a situation realistically and understand what they can and cannot change. To practice affective acceptance is to allow space to process the painful emotions frank evaluation of one’s situation arouses without trying to avoid or alter those emotions. Such existential, experiential acceptance can be thought of as an equilibrium. Maintaining equilibrium will not prevent people from being afraid of dying, from despairing, or from being angry at the unfairness of circumstance. Nevertheless, it is associated with lower levels of anxiety, depression, and anticipatory grief and higher levels of physical fitness among people in palliative care (Davis et al., 2017; Low et al., 2012).

Talk of “preventing,” “adapting to,” or “mitigating” climate crisis indicates people are not thinking realistically about their situation (Dyson, 2006). Although there is a better chance a “long-shot” technology such as geoengineering will prevent eco-apocalypse than that dandelions will cure a person’s cancer, practicing acceptance means acknowledging how unlikely such a possibility is (“Why Current Negative-Emissions Strategies Remain ‘Magical Thinking,’” 2018).

Practicing acceptance also means understanding that on a deeper level, climate crisis has not altered the fundamental facts of human existence. Climate crisis or no climate crisis, each person was always destined to die. People experiencing eco-anxiety sometimes think of climate crisis as a death sentence (Pihkala, 2020). It is not. Life is the death sentence. Climate crisis differs from cancer, traffic accidents, and the other innumerable causes of death primarily only in its scale and immediacy.

The human species, too, would not have lasted forever. In a few billion years, the sun would have swallowed the Earth and with it, people’s dreams of symbolic immortality. Even if people had invented the technology to populate other star systems, eventually, the heat death of the universe would have erased any indication humans ever existed. People’s end, individual and collective, was always inevitable. If people can accept their individual deaths and the heat death of the universe, it is not so hard to imagine accepting eco-apocalypse.

Even so, accepting near-term collapse will undoubtedly be painful. What is happening violates people’s culture’s narratives about how the world works and what they can expect their futures to look like. It would be easier to look away, to seek distractions, to take refuge in the denial of death. But sooner rather than later, the control agenda will fail. The levees will break, and how people prepare themselves now will determine whether they break with them. That is why a crucial function of the psychological infrastructure people need to build is to enfranchise eco-anxiety to provide the social support necessary for grief to do its

transformative work. Acceptance is the door through which new meaning waits.

A Meaningful Death

Death acceptance naturally evokes valued action (Yalom, 1980). When people truly understand and accept their time is limited, something incredible can happen: They can commit to what truly matters to them and live a life filled with meaning for however long they have left.

Philip Cozzolino's (2006) dual-existential-systems theory posits there are two avenues with distinct neurocognitive substrates through which people process death. When people are faced with brief, abstract reminders of mortality, such as mortality-salience prompts, they subconsciously assimilate the threat, causing their terror-management defenses to strengthen their adherence to culturally prescribed worldviews. However, when people engage in sustained, concrete death reflection, they consciously accommodate their worldviews to the fact of their mortality, leading to greater appreciation of and engagement in life. Studies show that when people allow themselves to experience their fear of death and persist in contemplation of personal death despite their fear, their terror-management defenses do not activate to the same extent as people who think of death more superficially and without experiential emotional processing (Greenberg et al., 1994). Likewise, people who admit feeling threatened by climate-crisis salience are less defensively ethnocentric than people who deny experiencing fear (Uhl et al., 2017). Across a range of studies, reflecting on one's future death has been found to make people more grateful to be alive (Frias et al., 2011), place a higher value on meaningful personal connections (Carstensen & Mikels, 2005), prioritize intrinsic rather than extrinsic goals (Kosloff & Greenberg, 2009; Lykins et al., 2007), feel a greater appreciation for life as a scarce resource (King et al., 2009), and experience more posttraumatic growth (Taku et al., 2008). Put succinctly, accepting death lets people live life fully.

Research on dual-existential systems dovetails with socioemotional-selectivity theory, which also posits that realizing they have limited time left to live causes people to think and act differently, shifting from preparatory goals, such as achievement, to regulatory, emotionally meaningful goals, such as connection (Carstensen et al., 1999; Carstensen & Fredrickson, 1998). Preparatory goals are the ways people tend to expend their energy when they feel death is far away and life is full of infinite potential—expansively, moving toward extrinsic goals that prepare them to grow in new and exciting directions. Regulatory goals are the ways people tend

to expend their energy when they feel death is near and time is precious—self-reflectively, moving toward intrinsic goals that help them make the most of what they already have (Carstensen & Freund, 1994; Fung & Carstensen, 2003). According to dual-existential-systems theory, part of what accounts for the shift between these two types of goals is the tangibility of anticipated death (Cozzolino, 2006). When death feels specific, visceral, and imminent, it is easier to grasp, integrate into one's personal narrative, and, ultimately, make sense of (Cozzolino, 2006; Cozzolino et al., 2004). The more vivid and real death feels, the more psychological benefits, such as meaningfulness, authenticity, and pro-sociality, result (Cozzolino et al., 2004, 2007; Seto et al., 2016).

The findings from dual-existential-systems and socioemotional-selectivity theory should give humanity hope about its quality of life over the next few decades. By accepting eco-apocalypse, people gain more definite answers to the if, when, why, and how of their collective demise. The specificity and vividness of these answers will be sure to increase as the dominos leading to societal collapse continue to fall, enabling people to experience the benefits of posttraumatic, or as some have termed it, "pre-traumatic" growth (Grose, 2020; Lifton, 2017).

Another element that leaves room for optimism is that the way terror-management defenses affect people (because no matter how well people practice death acceptance, their subconscious defenses will still influence them) depends entirely on cultural context (Crocker & Wolfe, 2001). If people's values are changed or specific values simply made more salient, how terror is managed is changed (Jonas et al., 2008). When people are subtly reminded of prosocial values by, for example, overhearing an experimental confederate mention the importance of helping others on a cell phone as they pass by a cemetery, those values are the ones terror-management defenses boost (Gailliot et al., 2008). Similar lines of research have shown that under the right circumstances, mortality salience can be used to increase prosocial (Joireman & Duell, 2007) and pro-environment inclinations (Fritsche et al., 2010), especially when a particular value is already strongly held (Akil et al., 2018) or when the beneficiary of the prosocial behavior is part of one's in-group (Jonas et al., 2002).

Even people's perceptions of what their in-groups are can easily shift. One study found drawing people's attention to shared human experiences helped them perceive themselves as part of a superordinate group with all humans, thereby reducing the racism and out-group antagonism typically engendered by mortality salience (Motyl et al., 2011). Experimenters were able

to create the same effects by invoking the global threat posed by climate crisis (Pyszczynski et al., 2012). This latter finding is particularly important because it suggests that if people's focus can be kept on ways climate crisis affects everyone, climate crisis could tie people together rather than tear them apart. If death reflection changes people's values and these changes engage the positive trajectories of terror management, it is possible climate crisis could spur an exponential shift in people's ethical ecosystem and that this shift would change the world for the better.

If climate crisis increases intrinsic goal and prosociality striving, it raises the question of whether, with the death of symbolic immortality, such impulses to meaning have anywhere to go. What pathways to meaning are left as apocalypse approaches? First, note that the bell for symbolic immortality has yet to sound its final toll. The collapse of industrial civilization does not necessitate extinction for all people everywhere, although it would be wise to prepare for the eventuality. Therefore, accepting eco-apocalypse need not mean people abandon efforts toward sustainability and adaptation to climate crisis. Continuing to fight a losing battle, pressing on against impossible odds, is what Becker (1975) would define as a heroic and worthy goal and is what Camus (1955) would endorse as the type of Sisyphean struggle that makes people truly human. Likewise, although it is difficult to say what a postwarming world will look like, environmentalism—here defined as the effort to ensure at least some life survives—is another symbolic immortality project that may still have its place (Lifton, 2017). Eco-friendly actions and reconnection with nature have been shown to promote resilience to eco-anxiety, particularly when it presents as guilt (Doherty, 2018; Palinkas et al., 2020; Pihkala, 2020). However, it would be a mistake for people to pour themselves into either of these endeavors to extend life to the extent they forget to live. A key principle of palliative care is that the extension of life is valuable only insofar as it allows people to better work toward other, more meaningful values (Clarke, 2020).

Second, in addition to these symbolic-immortality projects, there remains the age-old literal-immortality project of religion. Although empirical evidence varies (Jong et al., 2017), it has long been theorized that people who believe in an afterlife are less afraid of death (Becker, 1973; Lifton, 1996), and one study showed belief in an immortal soul makes people more willing to accept the possibility of human extinction (Lifshin et al., 2015). Moreover, it is well-documented that faith and involvement in faith-based communities improve people's ability to endure suffering and strife (Marks et al., 2015; Ramsay & Manderson, 2011), leading a recent American Psychological Association report

to suggest using spirituality to bolster personal and community resilience to climate crisis (Clayton et al., 2021). Although the extent to which spirituality acts as a balm to death anxiety is uncertain, it is an undeniable source of meaning to its adherents (Ivtzan et al., 2013), especially at the end of life (Bernard et al., 2017; Bovero et al., 2015).

Naturally, none of the above symbolic- or literal-immortality projects will suit everyone. Fortunately, immortality projects are only one pathway to meaning and perhaps not even the best. An alternative pathway would be to take a cue from palliative care and commit to present- rather than future-focused values, such as savoring experience and trying to make the world a better place for all who already live in it. There is no reason prosociality should die out with generativity. After all, there are and will remain innumerable people who need help not in the future but now. Like the parable of the starfish returned one by one to the sea, although the difference people make may not be as lasting as they would wish, it will nonetheless matter immensely to each individual it affects. If death acceptance clears the way for commitment to valued action on an individual level, perhaps acceptance of eco-apocalypse can clear the way for commitment to valued action on a global level. Indeed, activists such as Sarah Jacqueline Ray (2020) and Anouchka Grose (2020) view climate crisis as an opportunity for global movements to transform the world for the better. The impermanence of such achievements would in no way undermine them.

Finally, Viktor Frankl (1986), founder of the discipline of existential psychology, writes of a method of making meaning that does not require action at all but only mindful appreciation of people's everyday experiences. Recent research suggests that experiential appreciation is no less important to the experience of meaning than feeling like life makes sense, that one has personal purpose, or that one matters in the world (Kim et al., 2022). Methods to engender experiential appreciation are referred to as mindfulness techniques, which ACT teaches to promote acceptance of what people do not like but cannot change, including pain and death (Dahl, 2010; Mazza, 2020; Niemiec et al., 2010). Mindfulness's physical and psychological benefits cannot be overstated (Grossman et al., 2004; Khoury et al., 2013). Experiential appreciation ties together preventing the harms of experiential avoidance and harnessing the benefits of conscious death reflection. And it is something everyone can practice every day.

Death holds an incredible power to cut away everyday concerns and reveal what truly matters, which is why imagining one's own funeral is an exercise at the start of almost every ACT workbook (Dahl, 2010; Eifert & Forsyth, 2005; Mazza, 2020). When people advise to

“live like you’re dying,” this is what they mean. So what would a world in which people accept eco-apocalypse, enfranchise eco-grief, commit to valued actions, and appreciate everyday experience look like? Hopefully, a lot like a hospice. Palliative care doctor Rachel Clarke (2020) wrote:

Patients do not typically arrive at a hospice to die. Usually, only a small proportion of a hospice’s work centers around their inpatient beds. . . . Patients who are well enough to travel to and from the hospice, usually at an earlier stage in their illness, may attend their day center for months, even years. . . . Our day center crackles with life. Alongside an art and music therapist, patients may choose to write songs, paint watercolors, play the piano, sing. They often forge intense friendships, supporting and encouraging each other. The food is good, the laughter loud.

Hospices create communities in which people are empowered to let go of their attempts to live as long as possible so they may dedicate themselves to living as meaningfully as possible (Clarke, 2020; Kastenbaum & Moreman, 2018). What “living as meaningfully as possible” means is up to the individual. Yet given an enfranchising environment, most people seem able to find it; many patients report their time in hospice was the most meaning-rich period of their lives (Baker, 2015), something with the potential to become true for all people if the right groundwork is laid.

In many ways, the greatest obstacle to humanity living out its end meaningfully is not eco-apocalypse; it is the denial of eco-apocalypse. Ending that denial and committing to palliative values pave the way to experiencing new connection, purpose, and growth. Vitality does not mean living forever, symbolically or otherwise. It means living to the best of your ability today and the next day and the next until one day, you die. When that day arrives, you can be comforted knowing you had something even more essential than a meaningful death: a meaningful life.

Conclusion

In this article, I combined multiple theoretical frameworks to examine eco-anxiety from a new, existential perspective. Terror-management theory provided a lens to view eco-anxiety as a manifestation of death anxiety. Control-agenda theory revealed some of the ways people’s fear of death and eco-apocalypse are psychologically damaging, preventing them from

accepting their situation and processing their grief. Dual-existential-systems theory and socioemotional-selectivity theory suggested acceptance of death can lead people, much like palliative care patients, to commit to living kinder, more meaningful lives. Together, these ideas show it is possible to live in a manner one finds personally meaningful even under the threat of potential extinction.

If people are to put this theory to practice and create a psychological infrastructure to help people with the specific challenges associated with climate crisis, there is an immense and urgent need to educate mental-health professionals, community leaders, and individuals in how to use meaning-based interventions (Parry et al., 2021). ACT, with its well-established, empirically grounded literature and its focus on the practicalities of accepting what cannot be changed and discovering what changes are worth working toward, is ideally suited to guiding people through the processes of eco-anxiety and eco-grief. Likewise, training as many people as possible in grief and bereavement counseling will help prepare people to persist in a landscape in which climate crisis makes death an ever-more unavoidable part of everyday life. Last, it would be wise to consult both hospice workers and residents on what a “hospice for humanity” might look like and how to help people embrace palliative values.

Each of these committed actions will move people closer toward the value of minimizing suffering and maximizing meaning. Although there is cause to grieve for a lost future, there is also cause to work for a better present. Humanity is dying, and so it must decide how to live. In deciding, one would do well to recall that in life’s gloaming, ambitious plans—even those proposed here—fall apart. The urgency people feel to seize the day before the onset of night is culturally constructed, a story people tell themselves about the right way to die (Kastenbaum & Moreman, 2018). In reality, there is no more a right way to die than there is a right way to live. Regardless of resources and infrastructure and action, death will come. Perhaps eco-apocalypse is the proper place for purpose *in* life to give way to appreciation *of* life. As Dennis Potter (Bragg, 2007) said as he readied himself for death, “Things are both more trivial than they ever were and more important than they ever were, and the difference between the trivial and the important doesn’t seem to matter, but the now-ness of everything is absolutely wondrous.”

If people can live mindfully in the moment, if they can savor beauty and connection, if they can love the world even as they leave it, then they have found meaning that matters even at the edge of eco-apocalypse.

Transparency

Action Editor: Adam Cohen

Editor: Laura A. King

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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