



The End of the World As We Have Known It? An Introduction to Collapsology

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Abstract

Human-induced climate change is fast becoming a climate emergency as we near an irreversible point of no return. In our anthropocentric quest to have dominion over all the earth, we are putting all of life at risk, including human life and civilization. The introduction of collapsology serves as a reality check for better understanding the severity and urgency of the present crisis. Moreover, because of the deleterious effects of environmental racism and classism, there can be no climate justice without racial justice as well. It is hoped that in the end there will emerge a more informed pastoral theology and, by extension, a more informed pastoral and spiritual care, guided by the findings of climate science.

Keywords Anthropocentrism · Climate emergency · Climate racism · Collapsology · Human civilization · Mass extinction

We live in a world of unreality and dreams. To give up our imaginary position at the center, to renounce it, not only intellectually but in the imaginative part of our soul, that means to awaken to what is real and eternal, to see the true light and hear the true silence.

—Simone Weil, *Waiting for God*.

Introduction

In 1987, just a few years before their biggest hit, *Losing My Religion*, topped the charts, the alternative-rock band R.E.M. put forward another hit of sorts that was equally attention grabbing: “*It’s the End of the World as We Know It*,” lead singer Michael Stipe proclaimed, adding, “And I feel fine!” This might very well be reduced to a fleeting thought, a flash-in-

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the-pan sentiment except for the fact that decades later the “sentiment” has been gaining considerable traction throughout the world, and perhaps for good reason. Granted, the end of the world is not a new idea if we look at the historical record, particularly when it comes to religious apocalypticism; the end of the world has always been imminent, right around the corner for certain groups of religious believers. But there is something fundamentally different about the “end of the world” discussion that is happening now, which is less about religious apocalypticism and more about the abundance of scientific data. For example, there is now ample evidence of irreversible climate change, prompting *Scientific American* in early 2021 to declare that it will no longer use the more understated term “climate change” but from now on would only use the more precise term “climate emergency” in its coverage of the developing crisis: “The climate emergency has arrived, and is accelerating more rapidly than most scientists anticipated. . . the adverse effects of climate change are much more severe than expected and now threaten both the biosphere and humanity” (Ripple et al., 2021).

Indeed, the “adverse effects” include rising global temperatures and sea levels, with extreme weather events such as wildfires, drought, and hurricane activity becoming more common. When combined with another adverse effect, the dramatic loss of biodiversity that even now is threatening the world’s food and water supply, it is clear that we are facing a climate *emergency*. The loss of biodiversity, however, does not stem entirely or even primarily from the effects of climate change but is in many ways the result of human actions. In fact, the data reveal that it is anthropogenic activity more than anything else that has triggered the present extinction crisis, impacting both fauna and flora, including vertebrate populations, and leading scientists to the extraordinary conclusion that what we are witnessing is nothing short of “biological annihilation via the ongoing sixth mass extinction” (Ceballos et al., 2017). It should not come as a surprise that the “ultimate drivers” of the biotic destruction, according to the landmark study published in the renowned journal *Proceedings of the National Academy of Sciences*, are “human overpopulation and continued population growth, and overconsumption, especially by the rich” (Ceballos et al., 2017).

The end of a world

It is important to be clear that what we are talking about is *not* the end of *the* world, in the spirit of religious apocalypticism or millenarian eschatology, but rather the very real *possibility*, based on current scientific evidence, that we are beginning to see the end of *a* world, the world as we have known it, if we put it in the words of R.E.M. For the past 12,000 years, the earth’s global climate has remained relatively stable in comparison with previous geological time periods, allowing for the development, expansion, and eventual flourishing of human civilization. Known as the Holocene geological period, this period directly followed the Pleistocene epoch, known more commonly as the Ice Age, when climate conditions were often much colder, drier, and, in general, more unpredictable. But as the ice sheets retreated, hunter-gatherer humans could begin farming the land en masse, which gave rise to an “agricultural revolution” with more stable food production and in turn more stable human societies.

Hints of the revolutionary turn toward agriculture, and how it paved the way for humans to have more control over the natural world, can be found in the book of Genesis. On the one

hand, Adam and Eve are expelled from the Garden of Eden for their sinful actions, but on the other hand, they go forth into the world and make a “garden” of their own, with explicit instructions to “till the soil” and “eat the plants of the field” (Genesis 3:18, 23). By the time the book of Genesis was written, humans were well along in tilling fields and gardens, which was a fulfillment of the biblical mandate to “have dominion.” But it would only be a *partial* fulfillment of the mandate until, along with having dominion over the flora, humans also found ways to rule over the fauna, to “have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth, and over every creeping thing that creeps upon the earth” (Genesis 1:26 RSV). To state the obvious, having dominion “over all the earth” is a tall order for any species, even for *Homo sapiens*, not that this keeps us from trying. Human beings, after all, are “special” in the created order, if we take the Genesis account literally, set apart from and elevated above every other living thing. The agricultural revolution set in motion a chain of events that millennia later culminated in the religious view of human exceptionalism, or the “belief in human distinctiveness” (Harari, 2017, p. 78). Notwithstanding the sinful actions of our early ancestors, we are, according to Genesis, a unique creation, God’s defining and crowning achievement.

To be sure, we have done some very exceptional things in the course of human history—for example, the move away from hunter-gatherer foraging to agriculture; the industrial revolution that transformed the means of production, communication, and transportation; the present digital technology revolution, with the stunning development and rapid advance of artificial intelligence and machine learning; and the emergence of the field of astrobiology, focusing on the origins and ultimately the future of life in the universe. As I am writing this paper, *Perseverance* is already beginning to collect rock and soil samples on Mars, searching for signs of ancient microbial life in the Jezero Crater. All of this is quite extraordinary when we stop to consider that it has been accomplished in a relatively brief span of time, the blink of an eye, when viewed geologically. But humans’ remarkable progress in having dominion “over all the earth” carries with it an element of risk, which the writers of Genesis in retrospect could have made much more explicit à la Greek mythology. For example, in our unrelenting quest to tame nature, sometimes for good reason while other times just because we can, in our quest to go to places in the solar system and beyond, where human beings have never gone before, we sometimes forget that for all our stunning technological achievements, we are still very much motivated by the more primitive forces of our biological hardwiring. All of this has prompted the biologist Wilson (2012) to issue a word of caution, if not a warning, in his important book, *The Social Conquest of Earth*: “We have created a Star Wars civilization, with Stone Age emotions, medieval institutions, and godlike technology. . . we are terribly confused by the fact of our existence, and a danger to ourselves and to the rest of life” (p. 7).

It is indeed something of a contradiction that, for all our technological advances as a species, we now find ourselves in a moment of heightened risk and vulnerability and are coming to the realization that human beings are not after all exempt from the evolutionary forces of nature. If we needed any evidence that we, too, are another biological life form, subject to the evolutionary process, the emergence of COVID-19 is a stark reminder. We are another life form, far more interconnected with and interdependent on all other life forms, both plant and animal, than we sometimes realize, even if certain religious and theological frames of reference encourage us to think otherwise. In our unrelenting quest to have dominion over all the earth, nothing less than a divine mandate according to Genesis, we see ourselves as

more *independent of* and separate from other life forms, more distinct and exceptional. But the consequences of taking “have dominion” to the extreme are now becoming all too apparent, as the biological annihilation via human activity, which has triggered a major extinction event, comes into full view.

Humans, in the relatively brief span of time we have walked the earth, have become a formidable evolutionary force to be reckoned with so that our global impact is “already on a par with that of ice ages and tectonic movements” (Harari, 2017, p. 73). Our impact on the planet, therefore, cannot be overstated, for it has ushered in nothing less than a new epoch of time: the *Anthropocene* age. It is an age characterized, first and foremost, by the rapid advance and flourishing of human civilization across the globe. But in our unbridled quest to have dominion over all the earth, we have not been mindful enough of the consequences of our collective actions, of how the extinction crisis and the steep decline of species, in particular the loss of other mammals, has largely been of our own making. In fact, it is now being said that evolution cannot keep up with us:

Humans will cause so many mammal species to go extinct in the next 50 years that the planet’s evolutionary diversity won’t recover for 3 to 5 million years, a team of researchers has found. The earth may be entering its sixth mass extinction: an era in which the planet’s environments change so much that most animal and plant species die out. The International Union for the Conservation of Nature predicts that 99.9% of critically endangered species and 67% of endangered species will be lost within the next 100 years. The five other times a mass extinction has occurred over the past 450 million years, natural disasters were to blame. But now, human activity is killing mammal species... .. Scientists from Aarhus University in Denmark calculated how fast extinctions are happening, and how long it would take for evolution to bring Earth back to the level of biodiversity it currently has. The scientists concluded that in a best-case scenario, nature will need 3–5 million years to get back to the level of biodiversity we have on Earth today. Returning to the state Earth’s animal kingdom was in before modern humans evolved would take 5–7 million years. (Kotecki, 2018)

In all likelihood, the earth will eventually recover from another mass extinction, as it has done at least five times before according to the geological and fossil records. Several years ago, while in the Finger Lakes region of upstate New York, my daughter and I visited the Museum of the Earth in Ithaca and its Hall of Mass Extinctions, where we learned that as bad as the Cretaceous-Paleogene extinction event of 66 million years ago was for some species, life on earth has seen much worse. The most recent mass extinction, the Cretaceous-Paleogene extinction event, is famous for wiping out the dinosaurs—and 75% of all life—after a massive asteroid or comet collided with the earth. But almost 200 million years earlier, the Permian-Triassic extinction event, otherwise known as the Great Dying, nearly brought a complete end to life on earth. Thought to have been triggered by erupting super-volcanos in Siberia (the Siberian Traps region), the Permian event wiped out all but 4% of marine species. And yet, almost miraculously, the planet somehow endured, and life eventually recovered, but not for millions of years.

Whether we are in fact living through the sixth mass extinction, or at the very least a significant extinction crisis, we can be fairly certain that the planet will endure, with or without our help. However, in the millions of years it will take for biodiversity to be more

fully restored, there is no guarantee that human life, along with human civilization, will still be around to see it. Writing in an op-ed article in the *The New York Times* poignantly titled “Earth will survive. We may not,” the astrophysicist Adam Frank (2018) said that “[t]he problem is not saving the earth or life writ large, but saving our cherished civilization.” In other words, the goal is *not* saving the planet, as we often hear from well-meaning people; the planet will live on in some shape or form, with or without us. Rather, the more pressing and immediate issue for us is the future of human civilization, which sooner than we think could be hanging precariously in the balance. As LaMothe (2016) has suggested, with words that are equally poignant, “Human beings may be in the midst of a final tragic story. . . To recognize that we are in the midst of the sixth extinction will focus our attention and energies in order to face and respond to dire circumstances and an uncertain future” (p. 179).

Civilization at a crossroads

This brings us to collapsology, or *la collapsologie* in French, an emerging field of research that focuses directly on the future of human civilization via the intersectionality of overlapping crises, including the climate emergency, the vast loss of biodiversity and living species, the widening social and racial divide, the rapid advance of machine intelligence, pandemics, and the increasing frequency of natural disasters. It is telling that in France, where collapsology has taken hold with force, two out of every three people surveyed (65%) believe there will be a significant decline if not collapse of human civilization in the next 20 years, and in Italy it is an even higher percentage, with almost three of four Italians (71%) answering the question in the affirmative (McIntyre, 2020). The percentage is not quite as high in the United Kingdom and the United States, 56% and 52% respectively, but still indicates a fairly substantial level of pessimism. When the numbers are adjusted for age, for example for those under the age of 35 in the United States, almost two of every three people surveyed (63%) believe that a collapse of civilization will occur in the not-too-distant future. Whether there will be a civilizational collapse or more of a steady decline, what is important to note about the poll is the “mood” it has tapped into in the West, a pessimistic mood about the future of humanity. This mood has been captured not only in polling research but more popularly in the domain of contemporary cinema and television. Around a decade ago, many of us watched the intriguing documentary series *Life after People*, which was the *most watched program ever* on the History Channel. It was extraordinary to ponder, with a team of scientific experts, what would happen to the planet if and when we became extinct, which seemed like an inevitability as we watched the series. And what was the consensus, in terms of what would become of the earth when we are no longer here? The earth, again invoking the words of R.E.M., will be fine.

More recently, the mood has been captured in the dystopian melodrama *Fear the Walking Dead*, which, if the ratings are any indication, taps into the same wave of pessimism, anxiety, and *fear* about the future of human civilization. And, while the ratings are not what they used to be during the first few seasons of the series when it was *The Walking Dead*, there is still considerable interest in the show. On the surface, it seems rather far-fetched and fantastical, with post-apocalypse humans trying to maneuver around wave after wave of zombies. But if we take a closer look at the series, we begin to see that the zombies are little more than a plot device, a sideshow for what surviving humans most need to fear in the

event of a civilizational collapse: *other humans*. The zombies, in other words, are the least of everyone's worries as humans, friend and foe, revert to more primal form in the midst of dire circumstances. While there are still glimpses of love and compassion in the surviving human communities, still glimpses of, in a word, *humanity*, the show makes it clear that if there is a collapse of human civilization, all bets are off as to whether human compassion or rather human incivility or worse will win out. As David Sims (2015), the insightful television critic for *The Atlantic*, noted in his review of the updated show, *Fear the Walking Dead*:

Viewers know from the get-go that society is going to collapse. But as leaden as it sounds, the show's title has proven thematically apt: Like any great dystopian drama, it's about how fear of death and the unknown make people behave in terrible ways. Much as in *The Walking Dead*, the encroaching zombies are just window dressing for the threats humans pose to each other as the rule of law crumbles... The villains of the show aren't the zombies, who rarely appear, but the U.S. military, who sweep into an L.A. suburb to quarantine the survivors. Zombies are, after all, a recognizable threat—but *Fear* plumbs drama and horror from the betrayal by institutions designed to keep people safe.

A central focus of French researchers Pablo Servigne and Raphael Stevens (2020), who introduced the term *collapsology*, most notably in their book *How Everything Can Collapse: A Manual for Our Times*, is the question: "Can we live more or less peacefully through a 'civilized' collapse" or "will the outcome inevitably be entirely negative?" (p. 6). From the standpoint of *Fear the Walking Dead*, we can say that even if the outcome post-collapse is not entirely negative, it is anything but a civilized transition. While the term *collapsology* is reminiscent of Jared Diamond's (2005) earlier book *Collapse*, Servigne and Stevens extend the research much further by way of robust interdisciplinary science and extensive meta-analyses of *current* crises. And what is their conclusion? "In recent decades, humans (or at least many of them, in growing numbers), have become capable of upsetting the large biogeochemical cycle of the earth system, thereby creating a new era of profound and unpredictable change" (Servigne & Stevens, 2020, p. 4). Given the scale of the problem, the fundamental altering of the planet's biogeochemical cycling caused by human-induced climate change, we now find ourselves in the midst of an *unprecedented* crisis. While it is true that humans have faced many crises before, including war and plagues and natural disasters, the problem, at least for modern humans of the past 12,000 years, has never been so large-scale and global, with *all* of humanity now at risk. Servigne and Stevens (2020) make clear that we are not simply dealing with a "one-off disaster that we can forget about after a few months, like a tsunami or a terrorist attack" (p. 2), as if it were relegated to a single region or empire or population of the world. Rather, the present crisis is more of a "large scale, irreversible process—just like the end of the world, admittedly, except that it's not the end" (p. 2).

As I noted earlier, it could very well be the end of *a* world, the world of more stable climate conditions and biogeochemical cycles, which is not to be confused with the end of *the* world, the so-called end times made famous by millenarian eschatology. This is where we have to keep separate the science of collapse from the doomsday prophecies of religious apocalypticism lest the two become unnecessarily and unhelpfully commingled. The focus of *collapsology* is first and foremost on what is fast becoming runaway climate change

and runaway loss of biodiversity and how geopolitical conflict, economic inequality, and social unrest and racial discord are making the crisis that much worse. “Can the conjunction and perpetuation of ‘crises’ actually drag our civilization into an inescapable whirlpool?” Servigne and Stevens (2020) ask. “How far can all this go?” (p. 6). By all indications, we are already in the “whirlpool,” so all that remains to be seen is how deep it will take us. Whatever the eventual outcome, “[O]ne thing is certain: if our ‘basic needs’ are affected, it is easy to imagine that the situation *could* become immeasurably catastrophic” (Servigne & Stevens, 2020, pp. 2–3).

The idea that we still have time to reverse course, that human ingenuity will somehow find a way to avoid dramatic climate change along with global warming, has now become little more than wishful thinking. The Paris Climate Agreement of 2016 made clear that time is of the essence in reducing carbon emissions if we are to limit additional global warming to no more than, at a minimum, 2 degrees Celsius. But the agreement did not stop there; it put forward an even bolder challenge of maintaining a 1.5-degree warming threshold if we hope to avoid *catastrophic* climate change. Five years later, without the development of any substantial *global* mitigation strategies, it is now evident that the point of no return has already passed for the 1.5-degree threshold and that in less than a decade the point of no return for the 2-degree minimum threshold will pass as well (Sorab, 2019).

With all of this in mind, Servigne et al., (2021), in their more recent book *Another End of the World Is Possible: Living the Collapse (and Not Merely Surviving It)*, have concluded that the time has come for us to understand that it is already too late “to limit global warming to ‘less than 2 degrees Celsius,’ and that the consequences are and will be catastrophic” (p. 22). This is not to say that progress has not been made in keeping with the Paris Climate Agreement, as more major corporations, financial institutions, cities, and even countries throughout the world see the urgent need for increased climate action and mitigation strategies. Even if it is too late to limit global warming to no more than 2 degrees Celsius, there is still plenty of work to be done to make sure that warming levels do not rise even further, approaching 3 and 4 degrees Celsius, which would put not only human civilization at extreme risk but also, more fundamentally, the general sustainability of human life.

We are, however, cautioned not to overstate the signs of progress that have been made lest we cling to the illusion of perpetual human advancement, whether material and/or technological. Notwithstanding our well-meaning efforts to reduce our carbon footprint, the reality is that it is much too little, too late, as global carbon emissions continue to rise five years after the Paris Agreement. “Neither ‘sustainable development,’” write Servigne et al., (2021), “nor ‘green growth,’ nor promises of wealth redistribution will be able to stop the disasters from happening, should business-as-usual prevail” (p. xix). We are, in no uncertain terms, encouraged to stop the madness, not only the madness of runaway climate change, rising carbon emissions, and biodiversity loss but also the madness of clinging to the illusion that the progress of our minimal efforts, in comparison to the enormity of the crisis, can and will stave off the inevitable from happening. At a moment when human beings need to have an adult conversation about something that is very much unprecedented on a global scale, at least within the last 12,000 years, we find ourselves reverting at times to familiar default settings as a means of coping. Or, it might simply be that the unprecedented nature of the current situation is in many ways unrecognizable, for when we encounter something as unprecedented as the possibility of an uninhabitable *world* “we automatically interpret it through the lenses of familiar categories, thereby rendering invisible precisely that which is

unprecedented” (Zuboff, 2019, p. 12). For Servigne and Stevens (2020), the familiar categories or default settings include a variety of religious and social “myths”:

In media and intellectual circles, the question of collapse is not taken seriously. The notorious computer bug that threatened to strike in 2000, and the “Mayan event” of 21 December 2012, [ended] the possibility of any serious and factual argument. Anyone who publicly mentions a “collapse” is seen as announcing the Apocalypse, and relegated to the narrow category of those “credulous believers” in the “irrational” who have “always existed.” End of story. Time to change the subject! The process of automatically dismissing such talk—a dismissal which, as it happens, itself appears truly irrational—has left public debate in such a state of intellectual disrepair that it is no longer possible to express oneself without adopting one of two simplistic standpoints which often border on the ridiculous. On the one hand, we are subjected to apocalyptic, survivalist or pseudo-Mayan language; on the other hand, we have to endure the “progressive” denials... These two postures, both frenziedly clinging to their respective myths (the myth of the Apocalypse vs the myth of progress), reinforce each other, view each other as a scarecrow and share a phobia for dignified and respectful debate. All of this just reinforces the attitude of uninhibited collective denial that is such a prominent feature of our times. (pp. 4–5)

A dignified and respectful debate is very much needed at this moment if we take a close look at the data presented by the environmental journalist Abrahm Lustgarten (2020) in a *New York Times Magazine* cover story. The article, “How Climate Migration Will Reshape America,” presents the thoroughgoing findings of more than four dozen experts, including economists, demographers, climate scientists, insurance executives, architects, and urban planners, in order to construct computer projections of “the danger zones that will close in on Americans over the next 30 years.” “What I found,” writes Lustgarten (2020), “was a nation on the cusp of a great transformation,” with computer models projecting that “some 162 million people—nearly 1 in 2—will most likely experience a decline in the quality of their environments, namely more heat and less water.” To say that this is fast becoming a pivotal and defining moment for the nation, not to mention for the rest of the world, would be something of an understatement. Lustgarten (2020) adds that “for 93 million of them, the changes could be particularly severe, and by 2070, our analysis suggests, if carbon emissions rise at extreme levels, at least 4 million Americans could find themselves living at the fringe, in places decidedly outside the ideal niche for human life.” But much sooner than 2070—according to U.S. government projections, by 2040—extreme water shortages west of the Missouri River will already have become “nearly ubiquitous” (Lustgarten, 2020).

Nor is it only the water shortages of the western United States that are a major concern for future habitability. As temperatures continue to rise in the South, combined with the increasing frequency of extreme weather events, what the computer models project is a fairly substantial migration northward toward the Mountain West or the Northwest and the Northeast, as well as the Upper Midwest. “With time,” writes Lustgarten (2020), “the bottom half of the country grows inhospitable, dangerous, and hot” so that “something like a tenth of the people who live in the South and the Southwest—from South Carolina to Alabama to Texas to Southern California—decide to move north in search of a better economy and a more temperate environment.” But what about those who do not, or more importantly

cannot, make the move northward, whether due to health conditions and/or financial constraints? Lustgarten (2020) is clear about the data, with their important implications for pastoral theology and spiritual care: not surprisingly, those who stay behind will be “disproportionately poor and elderly.”

The present climate emergency, including more heat and less water, has long been predicted by climate scientists, for decades in fact, even if we are only now beginning to pay more attention to it out of necessity. But what has taken the experts by surprise is how quickly climate change in the extreme has come upon us. As John Holdren, professor of environmental policy at Harvard’s John F. Kennedy School of Government, has noted recently: “Everything we worried about is happening, and it’s all happening at the high end of projections, even faster than the previous most pessimistic estimates” (Pierson et al., 2021). For Lustgarten (2020), of all the devastating consequences of the high-end projections—“changing landscapes, pandemics, mass extinctions—the potential movement of hundreds of millions of ‘climate refugees’ across the planet stands to be among the most important.”

Nor will America be exempt from the climate migration, even if in many ways we are still driven by the assumption of American uniqueness and exceptionalism. Despite more heat and less water, as well as intensifying natural disasters, including wildfires and hurricanes, Americans press on with business as usual, in pursuit of the so-called American dream. For example, the neighboring states of Nevada and Arizona, both dependent on water from the Colorado River, have become more and more populous, even as the water level of Lake Mead plummets dramatically to its lowest level since the 1930s. “The sense that money and technology can overcome nature has emboldened Americans,” but alas, “it will soon prove too expensive to maintain the status quo” (Lustgarten, 2020). Flood insurance is currently skyrocketing for homes located in flood-zones and along waterfronts. For now, however, it is still very much business as usual, with Americans still flocking to waterfront property along the coasts and to the bright sunshine of desert regions. It is more than a little ironic that “in much of the developing world, vulnerable people will attempt to flee the emerging perils of global warming, seeking cooler temperatures, more fresh water, and safety,” whereas emboldened Americans have largely “gravitated *toward* environmental danger, building along coastlines from New Jersey to Florida and settling across the cloudless deserts of the Southwest” (Lustgarten, 2020).

State and federal governments, at least at the moment, do not have any clear plan for helping Americans determine the difficult “next steps” in the era of rapid climate change:

Policymakers, having left America unprepared for what’s next, now face brutal choices about which communities to save—often at exorbitant costs—and which to sacrifice. Their decisions will almost inevitably make the nation more divided, with those worst off relegated to a nightmare future in which they are left to fend for themselves. Nor will these disruptions wait for the worst environmental changes to occur. The wave begins when individual perception of risk starts to shift, when the environmental threat reaches past the least fortunate and rattles the physical and financial security of broader, wealthier parts of the population. It begins when even places like California’s suburbs are no longer safe. It has already begun. (Lustgarten, 2020)

Implications for pastoral theology

I well realize that this is not the easiest information to reflect on, theologically and/or psychologically, let alone digest; doing the research has been nothing less than a reality check for me. That said, I want to encourage us as pastoral theologians and pastoral and spiritual care providers to take the data very seriously and in so doing avoid the conclusion that runaway climate change is simply one issue among all the others. The environmental threat is all too real, and with it the beginnings of a great climate migration. As LaMothe (2016) noted earlier, with the extinction crisis in mind, there is a real possibility that we are in the midst of a “final tragic story,” which might be difficult for us to get our minds around given the overt anthropocentric emphasis of so much of our Western theology. Human beings, from a Christian theological perspective, occupy a privileged place in the created order and therefore have dominion over *all* the earth. The historical views of anthropocentric progress and having dominion over nature have therefore coalesced into a unified “Christian progressive dominion theology,” which has produced “anthropogenic climate change (with its catastrophic dangers) in the present” (Tyson, 2021, p. 8). Said another way, the theological view of human exceptionalism, with the natural world always subordinate to us in rank and value, has now put all of life, including ourselves, at significant risk. Thus, “We need structural and pastoral changes in religious practices and worship,” and, as Ilia Delio (2019) rightly adds, “essentially a renewal of religion for a planet in crisis. . . a new religion of the earth, one that celebrates interdependency, divine immanence, mutuality, and shared future.” It will not be easy, given the epistemological foundations of Western theology, which have always been, and still are to this day, decidedly anthropocentric. If there was ever a time to put forward pastoral practices and worship, grounded in a robust pastoral theology that takes very seriously a planet and all of life in crisis, that moment is now.

It is therefore not a time to despair, even though some despair or more accurately grief would be “normal” given the circumstances. “The world as we imagine it is breaking up,” write Servigne et al., (2021); “we no longer know what to believe in, and our emotions come to the surface” (p. 21). Our emotions, if we put them to good use, can help spur us into action (LaMothe, 2016) so that we do not get stuck in the despair of longing for what used to be. Collapsology can help us prepare “for the world that is to come, the world that we choose to rebuild, on new principles, among the other worlds that might take shape” (Bourg, 2021, p. xv). The same is true for pastoral theology, that it can also help us prepare for the world that is to come with, in the words of Tillich (2000), a renewed “courage to be.”

It has been said that anxiety about climate change is largely a white phenomenon, and in many ways there is considerable truth in this assessment. “Climate change,” writes Sarah Jaquette Ray (2021), author of the recent book *A Field Guide to Climate Anxiety*, “and its effects—pandemics, pollution, natural disasters—are not universally or uniformly felt: the people and communities suffering most are disproportionately Black, Indigenous, and people of color.” For example, in Lustgarten’s (2020) cover story, what he and the team of researchers found was that even though Atlanta had been busy bolstering its climate defenses, “[I]n some cases this has only exacerbated divisions. . . driving the poorest Black communities further into impoverished suburbs.” And in rural Louisiana and coastal Georgia, “where low-income Black and Indigenous communities face environmental change on top of poor health and extreme poverty,” many people are *even now* living at the “fringe,” already outside the ideal or even basic niche required for human life.

Here is where a pastoral theology of climate change, and with it a pastoral response to the crisis, must include a clear understanding of, in the words of Washington (2019), the reality of “environmental racism.” As “people of color” are suffering disproportionately due to climate change, it is therefore not surprising that they are more concerned about its effects than white people. And yet, those responding to the issues of climate change and the concept of climate anxiety are disproportionately and overwhelmingly white (Ray, 2021). I am aware of my own whiteness as I write this paper, living and working in a place of privilege that is not, at least not yet, on the “fringe,” outside the niche required to sustain human life. So, while I, like the collapsology researchers, are more than a little concerned that civilization is at increasing risk, that there is the distinct possibility that we are witnessing the end of the world as we have known it, I want to be careful that my concern is more for humanity as a whole, in particular those who are most vulnerable and at risk, and less about any “anxiety” that what we are witnessing is the passing away of a world of privilege. Ray (2021) writes:

I am deeply concerned about the racial implications of climate anxiety. If people of color are more concerned about climate change than white people, why is the interest in climate anxiety so white? Is climate anxiety a form of white fragility or even *racial* anxiety? Put another way, is climate anxiety just code for white people wishing to hold onto their way of life or get “back to normal,” to the comforts of their privilege.. .. ? The prospect of an unlivable future has always shaped the emotional terrain for Black and brown people, whether that terrain is racism or climate change. Climate change compounds existing structures of injustice, and those structures exacerbate climate change. Exhaustion, anger, hope—the effects of oppression and resistance are not unique to this climate moment. What *is* unique is that people who had been insulated from oppression are now waking up to the prospect of their own unlivable future.

This is not to say that the concern of the collapsologists about the precarious state of earth’s climate and how this is already having an impact on human civilization is unwarranted. We deny the climate *emergency*, or even minimize its rapid advance, at our own peril. There is *both* a climate emergency that all of us are facing *and* at the same time there is climate racism and classism, with, for example, Black, Indigenous, and poor communities suffering its effects disproportionately. “The fact is: inequalities overlap and amplify each other,” writes Flowers (2021); “those bearing the brunt of climate change often have the fewest resources and the most constraints on their civil rights, and live in the most polluted places” (p. 449). To deny either of these realities, the unfolding climate emergency *or* the fact that “the most severe harms from climate change fall disproportionately on underserved communities” (Flowers, 2021, p. 449), would be problematic for pastoral theology.

We can see parallels with the pandemic of 2020, as Ibram Kendi (2020) has noted, there being a clear viral pandemic as well as a racism pandemic: “When I examine the trickle of data from states and counties on coronavirus patients, when I scrutinize the racial demographics of hot spots, when I study the survey data, it sure seems to me as if the viral pandemic is hitting people of color the hardest.” Similarly, “[T]he denial of climate change and the denial of racism rest on the same foundation: an attack on observable reality” (Kendi, 2019b). For far too long, there has been denial of both climate change and racism by elected officials and legislators in Congress, talking heads on cable news, and even religious com-

munities and clergy. One very influential radio and television preacher from Southern California, John McArthur Jr., who embraces a so-called young Earth creationism, has put forward the bizarre view that God intended the earth as a “disposable planet” (as cited in Daley, 2020). This would be humorous if it were not for the fact that millions and millions of people listen closely to McArthur and other television preachers denying climate change, just as millions and millions of voters support political candidates who insist that reports of climate change and racism are “fake news” spread by the liberal media.

In the view of those who support the “politics of denial,” there is little if any need for developing policy, let alone any need for taking immediate action. “Do-nothing climate policy is racist policy,” writes Kendi (2019a), and the link is far more pervasive and structural than we sometimes realize. For example, “[T]he predominantly non-White global south is being victimized by climate change more than the Whiter global north, even as the Whiter global north is contributing more to its acceleration” (Kendi, 2019a, p. 21). Applying the important metaphor put forward by Crenshaw (1991), we can say that climate justice necessarily “intersects” with racial justice; there cannot be one without the other. Or, in the words of Elizabeth Yampierre, executive director of UPROSE, “It’s all related”:

You can’t say that with Hurricane Maria in Puerto Rico and Hurricane Katrina in New Orleans the loss of lives was simply because there was an extreme weather event. The loss of life comes out of a legacy of neglect and racism. And that’s evident even in the rebuilding. It’s really interesting to see what happens to the land after people have been displaced, how land speculation and land grabs and investments are made in communities that, when there were black people living there, had endured not having the things people need to have livable good lives. (as cited in Gardner, 2020).

Increasing our awareness of the rapid advance of climate change, and with it the need for climate justice, has become a matter of urgency for pastoral theologians and pastoral and spiritual care providers. It is somewhat akin to the important shift in the field of mental health counseling, where the traditional scientist-practitioner model of counseling and psychotherapy has evolved into a threefold approach with the addition of social justice advocacy. The model of scientist-practitioner-advocate can serve as an important touchstone for pastoral and spiritual care providers working in an era of climate emergency. Paying very close attention to the evidence-based science of climate change and to the impact it is having on the physical, psychological, and spiritual health of those in our care, in particular those who are most vulnerable, we become more highly informed and effective practitioners. We also become more aware of the trauma associated with prolonged heat and drought, as well as the trauma associated with natural disasters.

Baldwin (2018), in her important book, *Trauma-Sensitive Theology*, invites us to recall the impact of the absence of support and care following Hurricane Katrina: “For many survivors, the loss of home was significantly wounding and compounded by the feelings of hopelessness and despair that came from the experience of remaining on roofs for days and other forms of lack of rescue” (pp. 34–35). We can only wonder what the psychological fallout will be from the “loss of home” writ large in the coming era of climate migration. How will pastoral and spiritual care providers, clinical practitioners, clergy, and faith communities keep up with the increasing demand for social, spiritual, and psychological support from the many who will be displaced from “home?” This is something for us to be thinking about

now, while there is still time, lest we find ourselves experiencing burnout from the increasing demands for care. Some of us, particularly first responders, have already been feeling some degree of burnout and overwhelm as we continue working through the COVID-19 pandemic. It is hard to imagine the exponential demand for care and support that will come with unprecedented climate migration, of global proportion. If we as care providers have learned anything at all from the pandemic, it is the importance of finding care and support for ourselves *before* we reach the point of burnout, depression, and/or depletion.

The climate emergency will impact all of us, *is* already impacting all of us, care receiver and care provider alike. We can take a lesson from the experience of Camille Parmesan (as cited in Thomas, 2014), a professor at Plymouth University and the University of Texas, who thought very seriously about abandoning her research on climate change after becoming “professionally depressed.” Whether we are a care receiver or a care provider or even a scientific researcher, “[G]rowing bodies of research in the relatively new field of psychology of global warming suggest that climate change will take a pretty heavy toll on the human psyche as storms become more destructive and droughts more prolonged” (Thomas, 2014).

It is worth returning to the work of Joanna Macy and Chris Johnstone (Macy & Johnstone, 2012), specifically their emphasis on cultivating “active hope” in the era of rapid if not runaway climate change. To be clear, this is not the platitudinous hope that, unfortunately, we sometimes hear coming from religious pulpits, where we are encouraged to simply have faith in God above who ostensibly has everything, including the climate emergency, under control. De La Torre (2017) has already warned us convincingly about the overvaluation of hope, particularly the hopeful optimism of progressive Christianity: “Regardless of the good intentions of those who are privileged by society, or the praxis they employ to paternalistically save the world’s marginalized, the devastating consequences of neoliberalism and climate change will worsen as the few get wealthier and the many sink deeper into the despair of stomach-wrenching poverty” (p. 3). This has even prompted LaMothe (2022) to argue that, given the present climate emergency, a theology of radical care for all people, in particular those who are most vulnerable and at risk, must take precedence over a theology of hope.

My own feeling is that hope and radical care can coexist in our pastoral theology if (and I realize this can sometimes be a very big *if*) it is the *active* hope put forward by Macy and Johnstone, a hope that is similarly grounded in a radical and less anthropocentric care of all people, all living things, of the planet itself. To cultivate active hope and radical care may sometimes seem futile, given the anxiety and uncertainty that many of us, including care providers, are feeling. Indeed, the uncertainty, as Macy and Johnstone make clear, is “normal” given the present circumstances: “We can no longer take it for granted that the resources we’re dependent on—food, fuel, and drinkable water—will be available” or “even that our civilization will survive or that conditions on our planet will remain hospitable for complex forms of life” (Macy & Johnstone, 2012, p. 1). Once again, uncertainty is normal for the era of rapid climate change, a fundamental and “pivotal psychological reality of our time” (Macy & Johnstone, 2012, p. 1). This, of course, assumes that we can “go there,” in this case as pastoral theologians and as pastoral and spiritual care providers—that we can work within the uncertainty and ambiguity without feeling compelled to change the subject or interject optimistic platitudes because it is too difficult or “depressing” to talk about the situation. It also assumes that we can refrain from automatically diagnosing or pathologizing the uncertainty about climate change as an intrapsychic and/or religious

issue, an underlying psychological disorder, a personal problem, a lack of faith. In so doing, we send a clear message to those in our care that we are unable or unwilling to “go there.” But, as we have learned from mindfulness- and acceptance-based approaches to therapy, this form of “experiential avoidance,” even in the face of a climate emergency, becomes “an obstacle to personal and collective growth and development” as well as “an obstacle to the effective care of clients and congregants” (Bingaman, 2018, p. 50). For Macy & Johnstone (2012,) when we avoid or do not talk about the seriousness of the climate emergency, “[T] his blocked communication generates a peril even more deadly, for the greatest danger of our times is the deadening of our response.” They continue:

We often hear comments such as “Don’t go there, it is too depressing” and “Don’t dwell on the negative.” The problem with this approach is that it closes down our conversations and our thinking. How can we even begin to tackle the mess we’re in if we consider it too depressing to think about? Yet when we do face the mess, when we do let in the dreadful news of multiple tragedies unfolding in our world, it can feel overwhelming. We may wonder whether we can do anything about it anyway. So, this is where we begin—by acknowledging that our times confront us with realities that are painful to face, difficult to take in, and confusing to live with. Our approach is to see this as the starting point of an amazing journey that strengthens us and deepens our aliveness. The purpose of this journey is to find, offer, and receive the gift of Active Hope... Whatever situation we face, we can choose our response. When facing overwhelming challenges, we might feel that our actions don’t count for much. Yet the kind of responses we make, and the degree to which we believe they count, are shaped by the way we think and feel about hope... so that we can best play our part, whatever that may be, in the healing of our world. (pp. 2–4)

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