

CHAPTER FORTY

Climate Change

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Climate change is no longer a hazard far off into the future—the effects are all around us. This can be seen in the increased number and intensity of forest fires, floods and hurricanes, wider variability in temperatures, which is most evident in the form of heat waves, and coastal erosion driven by sea-level rise. As of the writing of this chapter in late 2018, human activities have already caused an overall warming of the earth's climate system of 1 degree centigrade¹ above preindustrial levels and this is more extreme in some regions, such as the Arctic, which has experienced two to three times that level of warming. Projections suggest that without significant interventions to mitigate climate change, this is likely to increase to 2 degrees or more. These suggestions are all represented in a scholarly consensus among climate scientists that this climate change is anthropogenic (caused by human activities). Theologians have been reflecting on the theological ethics of climate change since the 1970s, with nearly a dozen volumes having been produced.² At the same time, Christian leaders and laypeople have been increasingly visible in social mobilization on the issue of climate change.

Christian theological engagement with the issue of climate change has been modest but sustained, both in scholarly and lay contexts, but it is important to note at the outset that the scholarly conversation is still in flux. Climate change is an issue, which has the tendency to reconfigure the existing frames that are brought to it, and this is shown in a range of new approaches to ethics and critical studies in environmental history, eco-criticism, and eco-theology. Facing climate change does not simply challenge *us*, it changes us and our ways of seeing the world. With this in mind, in this chapter, I briefly explore some of the key characteristics of climate change as an issue, in order to reflect at greater length on the ways that climate change might reconfigure and bring new challenges to Christian ethics.

WHAT SORT OF ETHICAL ISSUE IS CLIMATE CHANGE?

At a time when nationalism seems to be on the rise, climate change is persistent and increasingly unique in its character as (1) a *global* phenomenon. Carbon emissions circulate through one of the most irrevocably common and constantly circulating terrestrial resources: the air we breathe. Given the way that pollution from China can circulate over to Portland, Oregon, in just over a week, climate change presents a true

¹Intergovernmental Panel on Climate Change (IPCC), 2018.

²Jeremy Kidwell, Franklin Ginn, Michael Northcott, Elizabeth Bomberg, and Alice Hague, "Christian Climate Care: Slow Change, Modesty and Eco-Theo-Citizenship," *Geo: Geography and Environment* 5, no. 2 (2018).

test of cosmopolitan ethical systems that are based on the politics of maximal global consensus. While this global aspect has given rise to an impressive mobilization in the form of an ongoing conference process that has resulted in a series of United Nations Intergovernmental Panel on Climate Change (IPCC) reports, it has also revealed the struggles of the whole project of global governance. Philosopher Stephen Gardiner suggests that these features, especially “dispersion of causes and effects, fragmentation of agency, and institutional inadequacy,” make climate change the “perfect moral storm.”³ Though climate change is intensely global and dispersed, it is important to note that neither carbon contributions nor consequences are distributed evenly. Economists, such as Lucas Chancel and Thomas Piketty, have increasingly pointed to the disparities between accumulated carbon emissions of wealthy developed nations and the two-thirds world, and also to the acute disparity *within* developed nations between those persons who rank in the top 5 percent of wealth and the remaining 95 percent.⁴ Climate change forces us to examine the contemporary capacities of cosmopolitan agreement, while it also compels an examination of local culpabilities.

Climate change is also a problem that focuses our thinking toward the presence and problem of (2) *systems*. Picking further up on this theme of dispersal, climate change as a phenomenon troubles classic (neoliberal) accounts of agency and the moral agent. Who is acting? Who is being acted upon? While it can sometimes be portrayed simplistically, as Gardiner hints, climate change involves an array of complex entanglings of different creatures and here we find that non-sentient creatures (like volcanoes) or even interactions across fields of agents (in the form of “feedbacks”) can also have significant “agency” in ways that are not predictable. Climate change is a moral problem that forces us to take an ecological view. There is also a knock-on implication for a political theology of climate change. In seeking to replace unsatisfactory neoliberal accounts of justice and action, environmentally oriented ethicists, especially eco-feminists and Christian anarchists, have sought to bypass the binary that pits neoliberalism against hegemonic Marxist critique toward a more positive, open-ended, or eudaemonistic ethic.⁵

Climate change is also a problem that (3) *entangles* our systems and defies tidy classification. On the face of things, climate change is simply a matter of atmospheric concentrations of CO₂ and other greenhouse gases. However, as soon as we begin to probe the sources of greenhouse gas emissions, we quickly find that most domains of environmental concern are drawn in: land use and deforestation, extinction, industrial horticulture, pollution, and many others can each be said to play a part in contributing to climate change. It is important to bear this in mind, especially when examining the subject of climate change through an interdisciplinary lens like theological ethics. The ethical issues at play are necessarily wide-ranging. In a similar way, while it can be tempting to think of climate change as a matter of environmental and other physical sciences, climate change is also the result of a range of political and cultural elements and scholars are increasingly drawing attention to the fact that mitigation will require an analysis that gets at the deep roots of those cultural frames (including theological ones)

³Stephen M. Gardiner, *A Perfect Moral Storm: The Ethical Tragedy of Climate Change* (New York: Oxford University Press, 2011), 24.

⁴Unpublished report by Chancel and Piketty, *Carbon and Inequality: from Kyoto to Paris: Trends in the Global Inequality of Carbon Emissions (1998–2013) & Prospects for an Equitable Adaptation Fund*, Paris School of Economics, November 3, 2015, <http://piketty.pse.ens.fr/files/ChancelPiketty2015.pdf>.

⁵Rosi Braidotti, “In Spite of the Times: The Postsecular Turn in Feminism Explorations in Critical Social Science,” *Theory, Culture & Society* 25, no. 6 (2008): 1–24.

that support and inhibit sustainable lives. Toward this end, environmental scientist and contributor to the IPCC process Mike Hulme has suggested, “Science has universalised and materialised climate change; we must now particularise and spiritualise it.”⁶ So let us now turn to explore what exactly this kind of work might look like in the context of Christian ethics.

CHRISTIAN ETHICS AND CLIMATE CHANGE

Having discussed above some key demands that the phenomenon of climate change poses to ethical reflection, the next and main task of this chapter is to explore the ways that Christian ethics might respond to these demands. I do not want to advance a generic programmatic proposal at this juncture, as has been done famously by H. R. Niebuhr with his Christ-and-culture typologies. Instead I will explore, as other authors have done, how we might confront the issue of climate change through the Quadrilateral. I want to emphasize at this juncture how my use of this frame is not meant to mirror a set of epistemological claims. Indeed, I would hold that such an approach would be seriously problematic. As Scharen and Vigen rightly note in their book *Ethnography as Christian Theology and Ethics*, “Experience is not simply a source for theology and ethics—it is the primary lens through which human beings access any and all scientific, moral, or theological knowledge.”⁷ In particular, theological engagements with science must be cautious about subordinating the category of “experience” and by extension suggesting that other sources of theological reflection might be somehow unmediated by experience. This is because at the core, a coherent exposition of the doctrine of creation that serves as a crucial corollary to discussion of science ought to involve a meaningful consideration of God’s good world as being full of purposive divine action. As many of my coauthors in this volume have suggested, we can treat this Quadrilateral framing as a kind of reflective heuristic, and with this in mind, I will consider each heading in turn.

EXPERIENCE

One of the ways we can foreground experience in a theological ethics of climate change is to conduct an experiment in grassroots theology. To provide one example, in my own research, I sought to engage more systematic doctrinal reflection in a proximate context through observations and interviews with Scottish Christians (2015–18) involved in the Eco-Congregation movement.⁸ What we found is that among these many Christians who were focusing their ministry on climate change mitigation, reasons for concern were rarely packaged in ways that might easily map onto systematic theological categories. Their concerns were constituted around more domestic and intuitive themes: concern to secure a safe future for their children, anxieties about their own household finance, and a prophetic burden for the well-being of more distant neighbors who might be suffering most acutely from the effects of climate change. While one reaction to this finding might

⁶Mike Hulme, *Why We Disagree about Climate Change: Understanding Controversy, Inaction, and Opportunity* (Cambridge: Cambridge University Press, 2009), 330.

⁷Christian Scharen and Aana Marie Vigen, *Ethnography as Christian Theology and Ethics* (New York: Continuum, 2011), 63.

⁸Kidwell et al., “Christian Climate Care.”

be to suggest that climate change is not a “theological” issue, I would prefer to take this as an opportunity to widen the scope of what gets called “theological.” A number of Christian ethicists have begun to emphasize the validity of reflection, which is first grounded in the messy everyday life of Christians working through these issues. This leads to a kind of Christian ethics that starts with lay knowledge and foregrounds lay concerns as a subject for ethical analysis.⁹

Building on this suggestion, a theology of climate change ought also to be *liberative*, that is focused on the most acute suffering felt by those on the margins of our global economy. Some of the most prophetic calls to action on climate change have come from Pacific Island communities for whom the threat of climate change through sea level rise is imminent. It is important to avoid “armchair” liberation theology, for example, when developed-world theologians advocate benevolently on behalf of (but not alongside) peoples and lands that are on the margins of these debates. Rather, I want to suggest that Christian carbon polluters (i.e., in the United States, Australia, and Europe) should pay attention to the unique inflection that Christian theology takes in those places where the impacts of climate change are most severe. Jesus’s preaching came across as shocking and counterintuitive to a number of his fellow Jewish contemporaries, just as the apostle Paul brought “foolishness” to the Greeks. By appropriating the voices of others, Christian ethics can too often implicitly smuggle forms of white privilege into reflection on contemporary issues. Climate change is a perfect context for countermovements where theological reflection is structured as listening. To provide just one example of what I mean, Hannah Fair provides an example of the ways that Christians in the Pacific Islands are framing climate change as an issue. She shares a range of ways that islanders foregrounded different aspects of the text of the biblical flood in Genesis 6–9, in light of the very real threat of climate change-related flooding of their homes.¹⁰ Some islanders found a tension with the rainbow covenant promise that floods would never be an instrument of divine judgment. Others saw Noah as an “aspirational figure,” that is, an icon of faithful response in preparing for impending trouble. Finally, yet another set of respondents presented a liberative reading—drawing attention to the often-ignored cries of those who remained outside the ark: “Those outside the ark need to be liberated and I think God is with those who are outside the ark. God is struggling with them, trying to alleviate them while Noah he is enjoying the luxury life, you know.”¹¹

My point here is that, particularly in the multiple failures by scientific and political bodies to galvanize public concern, climate change is an issue for ethical deliberation that encourages the ethicist to begin not with prophetic proclamation (though that may well be due) but with listening to the groans of creation (more on this below) and those persons who are on the front lines of climate change impacts, and who are also the victims of racialized marginalization and injustice. Such theology-from-below can foreground new theological resources and provide more robust contexts in which to invite reflection on more abstract and academic framings of climate change as an issue.

⁹In addition to Scharen and Vigen, cited above, see Luke Bretherton, *Hospitality as Holiness: Christian Witness amid Moral Diversity* (Aldershot: Ashgate, 2006).

¹⁰Hannah Fair, “Three Stories of Noah: Navigating Religious Climate Change Narratives in the Pacific Island Region,” *Geo: Geography and Environment* 5, no. 2 (2018), DOI: 10.1002/geo2.68.

¹¹*Ibid.*, 11.

SCRIPTURE

I have briefly noted the utter novelty of climate change and, turning to scripture, this might be taken to be problematic—given such novelty, none of the texts of the Bible can be said to address anthropogenic climate change directly. Given my suggestion above that reflection on climate change can often telescope outward to cover a much broader environmental concern, it may be useful to zoom out a bit and consider what sort of biblical texts speak to and frame the issue of climate change for Christian ethics. I have already pointed to the possible value of liberative readings, but it is also worth noting that ecological concerns have already been the sustained preoccupation of a range of scholars working in the field of ecological hermeneutics. This project has matured from an early focus on a limited range of texts that might be taken to be about creation (particularly Genesis 1–2) toward a more canonically encompassing view, from Genesis through to Revelation.

Biblical scholarship has struggled to shake off a suspicion that Christianity, and by extension, biblical theology, has been the cause of the environmental crisis. While there are good reasons to dispute this claim, it is important to appreciate the impact this attitude has had on contemporary ecological readings of the Bible.¹² This takes shape particularly in the Ecological Hermeneutics and Earth Bible projects in the form of a hermeneutics of suspicion.¹³ In my view, a proper ecological hermeneutic must accept and embrace canonical polyphony. There are, in Christian scripture, a range of human voices speaking of ecology in different ways, and also a range of other-than-human voices that are presented by human writers in some quite counterintuitive and important ways. I cannot possibly summarize the range of relevant texts in this brief chapter, but can provide a few examples to demonstrate what I mean.

The Hebrew Bible has an extensive catalogue of the speech of nature and the prophetic significance of geological activity and terrestrial weather patterns. The earth is often portrayed as resonating with divine anger and disappointment, as in 2 Sam. 22:8, where we read that the “earth reeled and rocked and the foundations of the earth trembled and quaked, because he was angry” (see parallel in Ps. 18:7). This parallels regular use of “rocks” and “mountains” across both the Hebrew Bible and the New Testament as a metaphor for a steadfast creator God (as in 2 Sam. 22:2 and Ps. 18:2). On one level, this metaphor rests on the edge of becoming literal as we see the consequences of hydraulic fracking and other recent efforts at unconventional fossil fuel extraction in the increasing occurrence of earthquakes that threaten human life and well-being. On another level, though, these texts convey a symmetry between divine and terrestrial communication, that is, divine anger at human unrighteousness is mirrored in groans, cries, and shaking in nature (Ps. 114; Mt. 27:51–54), while divine pleasure is shown in dancing and singing by nature (Ps. 69:34, 98:4).

One implication of these texts, which has been taken up over the centuries in Christian natural theology, is that the creation can serve, in an albeit mitigated way, to convey God’s intentions and frustrations. This is certainly the attitude conveyed by the Psalmist. By extension, I want to ask whether we might consider the empirical scientific work that seeks to measure anthropogenic environmental impacts as a form of listening for divine

¹²Jeremy Kidwell, “The Historical Roots of the Ecological Crisis,” in *Oxford Handbook of Ecology and Bible*, ed. Hilary Marlow and Mark Harris (Oxford: Oxford University Press, 2020).

¹³See Jeremy Kidwell, review of *Exploring Ecological Hermeneutics*, ed. Norman C. Habel and Peter Trudinger, *Expository Times* 122, no. 11 (2011): 563.

communication. Ignoring the signs of climate change also has a spiritual significance—it portrays a hardening of hearts when (some) humans have agendas for development and wealth, which they prefer not to have impeded by practical considerations or anthropogenic harms. This is a straightforward reading of the text of Job 31:38-40, where he gives the land a prophetic voice: “If my land has cried out against me and its furrows have wept together, if I have eaten its yield without payment and made its owners breathe their last, let thorns grow instead of wheat and foul weeds instead of barley” (ESV). The parallels between prophetic apocalyptic imagery and present consequences of human ecological devastation (particularly in airborne pollution, desertification, and geological activity) can be breathtaking, as in Jer. 4:27ff where the writer describes the consequences of human foolishness and evil as resulting in the land becoming a “desolation”—a reversing of God’s creative activity, which organized chaos into lively forms: “I looked on the earth, and behold, it was without form and void ... all the hills moved to and fro. I looked, and behold, there was no man.” There are good divine purposes at work in sustaining, renewing, and preserving the whole created order, including its vulnerable human inhabitants, and (I would argue) this divine work is perceptible to the careful observer. However, they may be obscured by the scale of impacts like climate change. There is an abiding sense conveyed particularly in the Hebrew Bible that humans are left to feel some of the ecological consequences of misbehavior, particularly in the face of stubborn resistance so clearly evident in human response to four decades of climate science.

REASON

As we have learned more in recent decades about the surprising liveliness of the created order, it has become increasingly difficult to sustain the enlightenment-era notion of the rational self. To take just one example, research into bacteriology and the human microbiome has exposed ways in which microscopic life is intrinsically related, indeed coevolved, within human life in the form of tiny creatures that dwell in the human gut (and elsewhere). The microbiome within each human body contains up to one hundred times the total genetic material that can be found elsewhere in the body, and researchers have found that the creatures in your gut can have meaningful impacts on our well-being and cognition.¹⁴ This represents a serious and possibly fatal challenge to Enlightenment model of each human working as an epistemologically autonomous reasoner, what Charles Taylor has called the “buffered self.” Taylor’s model holds that “the things beyond [our personal epistemological boundary] don’t need to ‘get to me’ ... This self can see itself as invulnerable, as master of the meanings of things for it.”¹⁵ These microbiological insights that commend a more complex model of agency are matched by a range of other new fields that go by a range of names: post-humanism, object-oriented ontology, new materialism, actor-network theory, and so on.¹⁶ In one way, this is simply a rehearsal of

¹⁴Readers interested in more on bidirectional communication between the brain and the gut microbiota can read more in Andrew P. Allen, Timothy G. Dinan, Gerard Clarke, and John F. Cryan, “A Psychology of the Human Brain-Gut-Microbiome Axis,” *Social and Personality Psychology Compass* 11, no. 4 (April 2017).

¹⁵Charles Taylor, *Sources of the Self: The Making of the Modern Identity* (Cambridge: Harvard University Press, 1989), 38.

¹⁶See, e.g., Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007); Ian Bogost, *Alien Phenomenology, or What’s It Like to Be a Thing* (Minneapolis: University of Minnesota Press, 2012); Tim Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (London: Routledge, 2011).

what liberal and anarchistic political theologians have been insisting for decades: that we can only meaningfully think “together” and that our modes of “reasoning” are inextricably entangled with the influence and thoughts of others. But few political theologians have yet integrated the notion of “thinking with” other-than-human forms of life.

A similarly fatal challenge has been issued to the Cartesian reduction of other-than-human life to automatons. To note just a few of the hundreds of different vectors that come together here from across biological and botanical science, Frans de Waal (and the ethologists who have followed that research) has observed the politics embedded in social behavior of chimpanzees; recent research has observed the ways that trees communicate and collaborate in response to threats; and birds and mammals have surprising abilities in problem-solving and urban adaptation.¹⁷ Climate change has certainly not displaced the anthropocentric hierarchies evident in late-medieval chains of being—we are clearly the most impactful species on earth. However, it is now quite radically unclear whether human distinctiveness can be affirmed in terms of our ability to perceive and reason about the world, even with all of our impressive instrumentation. If we are to reason out a full account of what biospheric thriving looks like, it will have to be in collaboration with a much wider host of God’s creatures.¹⁸

TRADITION

I have emphasized the contemporary aspect of climate change above: it is a novel problem that provokes creative responses in a range of fields including theology. Undergirding this characterization, however, is another important one, which is that the features of contemporary theological thought which I want to resist (e.g., the “buffered self” or the sense that other-than-human forms of life lack agency or sentience) are only slightly less recent innovations with respect to the broader cloth of Christian historical theology. There is much about our present framings that I want to disrupt: our assumptions that “progress” and “development” are moral goods or necessities, instrumentalized notions of other-than-human creatures, and hermeneutics of suspicion regarding the “communication” of nature. To be fair, versions of each of these views have a provenance in premodern Christian theology. However, it is disingenuous to suggest that they have always been mainstream within the Christian tradition, or that they are theologically necessary ways of conceiving human relationships to the created order.

To give just one example of what I mean here, we can look to the notion of creation as “communicative.” A number of scholars in science and theology have noted Galileo’s 1615 metaphor of the two books, in which he describes the “book” of Nature and the Book of Scripture and his suggestion that we should “read” them both.¹⁹ This was appreciated by Galileo’s contemporaries such as Tommaso Campanella. These suggestions regarding

¹⁷Frans de Waal, *Chimpanzee Politics: Power and Sex among Apes* (Baltimore: Johns Hopkins University Press, 2007); Peter Wohlleben, *The Hidden Life of Trees* (Vancouver: Greystone, 2016); Robert W. Shumaker, Kristina R. Walkup, and Benjamin B. Beck, *Animal Tool Behavior: The Use and Manufacture of Tools by Animals* (Baltimore: Johns Hopkins University Press, 2011).

¹⁸Space does not permit a sustained treatment here, but philosophers have provided some examples of what this might look like in practice. See Michelle Bastian et al., eds., *Participatory Research in More-than-Human Worlds* (London: Routledge, 2016); S. Eben Kirksey and Stefan Helmreich, “The Emergence of Multispecies Ethnography,” *Cultural Anthropology* 25, no. 4 (2010): 545–76.

¹⁹See Klaas van Berkel and Arjo Vanderjagt, eds., *The Book of Nature in Early Modern and Modern History* (Leuven: Peeters, 2006).

the importance of the created world are carried forward into Protestant theology as recounted in work by Belden Lane, Mark Stoll, and Evan Berry.²⁰ Indeed, many historians of science go so far as to argue that modern Western science arose not in spite of or against Christian theology, but because it cultivated attentive study of the natural world and its creatures. We need not stop our work of retrieval in the sixteenth century, however. There are a number of precursors to these medieval scientists: the Franciscan tradition of animal stories and awareness of the “voice” of creatures much earlier in monastic literature arising from Desert spirituality and reflection by Patristic voices such as John of Chrysostom or Augustine of Hippo.²¹

There is a theology of history that this confrontation with climate change seems to press us toward. This is a historical theology that might inform a prophetic renewal of a vision of the good life and the horizon of future human inhabitation of the earth. The new field of environmental history has offered a similar challenge to the broader discipline of history and archaeology. Stories we have told about the past in the modern telling of history have excluded and marginalized environmental factors. New insights from paleobiology have begun the work of reasserting the tight integration of human life with other forms of life on earth. Ultimately, what I am pressing for is a historical theology that can aid this work of retrieval. We might look toward the work of *nouvelle theologie* in attempting a *ressourcement* or to Orthodox theologians such as Georges Florovsky and John Zizioulas who argued for a Neo-Patristic synthesis. These recent traditions offer models of the kind of double-perspectived rehabilitation, which looks both forward and backward. Ultimately, there is significant range here for an eco-theological rehabilitation of the theology of history, and I would argue that such a rehabilitation must be attempted if we are to carry forward an ecologically coherent theological ethics.

CONCLUSION

I am convinced that the failure of the developed world to mobilize in response to four decades of climate science and the clear and present signs of climate change represents not just a moral failure in terms of apathy or a lack of action, but there are underlying problems with the ways that we frame human action and creaturely interrelation, and Christian theology has been captive to these problems as much as many secular critical frames. To respond to climate change we must not just “rally the troops,” though there are many encouraging signs that there is now a new groundswell of Christian action and mobilization in response to climate change. We must also prophetically bring forward the resources of the Christian tradition. This involves modes of praxis, particularly the spiritual disciplines of meditation (listening) and asceticism (fasting). This also involves reconsiderations of a range of theological conceptions including the nature of grace: of ourselves as graced bodies dwelling sometimes awkwardly on this earth and of our relationships with others as being “graced” toward hope for our terrestrial future. Only when we inhabit the fullness of the Christian tradition, and take up all the spiritual

²⁰Belden C. Lane, *Ravished by Beauty: The Surprising Legacy of Reformed Spirituality* (Oxford: Oxford University Press, 2011); Mark Stoll, *Protestantism, Capitalism, and Nature in America* (Albuquerque: University of New Mexico Press, 1997); Evan Berry, *Devoted to Nature: The Religious Roots of American Environmentalism* (Oakland: University of California Press, 2015).

²¹David Clough, *On Animals* (New York: T&T Clark, 2012).

resources available, will we be able to coherently and robustly respond to an issue like climate change.

SUGGESTED READINGS

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