

Deep Responsibility for the Deep Future

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Abstract

This article enters into dialogue with *Laudato Si'*. Part one examines the gap between the social imagination of the future and the long-term climate effects of our actions: the “deep future.” Part two argues for the intrinsic teleological connection between the doctrines of creation, Christology, and eschatology in order to create theological foundations for opening our imaginations to the deep future. Part three addresses the apparent contradiction between God’s bringing of the kingdom, which is the ground of our hope, and human responsibility.

Keywords

Anthropocene, climate change, creation, ecology, eschatology, incarnation, *Laudato Si'*, providence, responsibility

In the opening chapter of *Laudato Si'*, Pope Francis makes an urgent appeal “for a new dialogue about how we are shaping the future of our planet.”¹ This article enters into dialogue with *Laudato Si'* on how the restriction of our imaginations to the short term diminishes our sense of responsibility for “shaping the future of the

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1. Pope Francis, “*Laudato Si': On Care for Our Common Home*” (May 24, 2015) 14, http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html. (This and all other URLs were accessed February 8, 2016.)

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planet” (*LS* 14). Part one will examine the problematic situation; namely, the gap between the social imagination of the future and the long-term climate effects of our actions, what I will call “the deep future.” Without the opening up of our imaginations to the deep future, we will lack the capacity to grasp our deep responsibility.² Part two will argue for the intrinsic teleological connection between the doctrines of creation, Christology, and eschatology in order to create theological foundations for opening our imaginations to the deep future. Part three will address the apparent contradiction between God’s bringing of the kingdom, which is the ground of our hope, and human responsibility. The overall argument will offer theological foundations for an ethic of the deep future.

The Problematic Situation: Culture, Climate, Change, and the Deep Future

Our culture has lost a sense of the future. As media theorist Douglas Rushkoff argues, “Our society has reoriented itself to the present moment. Everything is live, real time, and always-on.”³ In this context, “narrativity and goals are surrendered to a skewed notion of the real and the immediate; the Tweet; the status update. What we are doing at any given moment becomes all-important.”⁴ The “trivial pursuit of the immediately relevant”⁵ makes it very difficult to “engage in meaningful dialogue about . . . long term global issues.”⁶

When we do actually address long-term social problems, policies that have impacts regarding the future have been driven not by ethical considerations, but by economic cost–benefit analyses that privilege the present. One of the world’s most distinguished climate economists, Yale’s William Nordhaus, typifies this approach in his argument for a high discount rate, which “means that the welfare of future generations is reduced or ‘discounted’ compared with nearer generations.”⁷

While science understands itself as concerned with facts (or converging lines of evidence) and not values, the scientific enterprise does not take place in a neutral space unaffected by the values of the culture and government organizations that provide research grants. Indeed, the horizon of concern in scientific studies dedicated to

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2. This line of thinking is influenced by Paul Ricoeur’s statement, “Is it not because we too often and too quickly think of a will that submits and not enough of an imagination that opens itself?” Paul Ricoeur, “Toward a Hermeneutic of the Idea of Revelation,” in *Essays on Biblical Interpretation*, ed. Lewis S. Mudge (Philadelphia: Fortress, 1980) 73–118 at 117.
 3. Douglas Rushkoff, *Present Shock: When Everything Happens Now* (New York: Penguin, 2013) 2.
 4. *Ibid.* 6.
 5. *Ibid.* 5.
 6. *Ibid.* 2.
 7. William Nordhaus, “Critical Assumptions in the Stern Review on Climate Change,” *Science* 317 (2007) 201–2 at 202.

forecasting future climate change is dominated by the relatively short horizon of 2050 to 2100, as “most studies of the future impact of anthropogenic CO₂ on the climate system focus their attention on the next few decades, or at most up to the end of the 21st century.”⁸ This restriction is due to “computational costs”⁹ in running computer models and “these periods are comparable to policy planning and implementation times and comprehensible in terms of [a] human life span.”¹⁰ The latter reason suggests our concern is limited by what we can imagine or what is comprehensible for the public; namely, one human life span.

To gain some perspective on the gap between how we culturally imagine the problem of climate change and some of the possible long-term effects of our actions we need to examine some basic physical dynamics within the climate system that lend themselves to long-term consequences. First, most of the energy trapped by greenhouse gases goes into heating the oceans (to date around 90%).¹¹ The oceans take time to heat up (i.e. thermal inertia). Thus there is a lag time between the cause (increased greenhouse gas emissions) and the effect (increased temperatures).¹² While the oceans take time to heat up, once the deep oceans are heated it takes time for them, and the planet, to cool down. This means that once emissions are stopped (presuming deep-ocean warming) temperatures will remain elevated for around a thousand years.¹³ Second, carbon dioxide lasts for a very long time in the atmosphere. Around 50% of the CO₂ we release is absorbed in around 25 years¹⁴ by soils, land vegetation, and the oceans, while around 25% of it will be affecting the climate after a thousand years, 12% after ten thousand years, and around 7% of it could be affecting the climate several hundred thousand years from now.¹⁵ According to David Archer, the leading researcher on the

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8. Alvaro Montenegro et al., “Long Term Fate of Anthropogenic Carbon,” *Geophysical Research Letters* 34 (2007) L19707, 1–5 at 1.
 9. Toby Tyrrell, John G. Shepherd, and Stephanie Castle, “The Long-Term Legacy of Fossil Fuels,” *Tellus Series B: Chemical and Physical Meteorology* 59 (2007) 664–72 at 665.
 10. Montenegro, “Long Term Fate” 1.
 11. The National Oceanic and Atmospheric Association National Climactic Data Center, “2009 State of the Climate Highlights” 4. This is based on D. S. Arndt, M. O. Baringer, and M. R. Johnson, “State of the Climate in 2009,” *Bulletin of the American Meteorological Society* 91 (2010) s1–s222.
 12. “One third of the response occurs in the first few years, in part because of rapid response over land, one-half in ~25 years, three-quarters in 250 years, and nearly full response in a millennium.” James Hansen et al., “Target Atmospheric CO₂: Where Should Humanity Aim?” *Open Atmospheric Science Journal* 2 (2008) 217–31 at 220.
 13. Susan Solomon et al., “Irreversible Climate Change Due to Carbon Dioxide Emissions,” *Proceedings of the National Academy of Sciences* 106 (February 10, 2009) 1704–9 at 1704.
 14. James Hansen, “Assessing ‘Dangerous Climate Change’: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature,” *PlosOne* 8 (2013) 1–26 at 15.
 15. David Archer, “Fate of Fossil Fuel CO₂ in Geological Time,” *Journal of Geophysical Research* 110 (2005) 1–6 at 5.

long life of CO₂, “the mean lifetime of fossil fuel CO₂ is about 30–35 kyr [30,000 to 35,000 years].”¹⁶ Third, as you heat up the planet you will set in motion other chain reactions (i.e. positive feedbacks) that can substantially increase warming.

In the interface between science and policy, the short-term positive feedbacks are incorporated into the discussion while long-term feedbacks are not considered. The proposals by 186 countries leading up to the Paris Agreement (COP 21) to hold temperature to 3.5° C above preindustrial times¹⁷ are based on models used by the IPCC that only incorporate fast feedbacks, which include water vapor, clouds, aerosols, and sea-ice disintegration. Scientists, however, recognize, in looking at the Earth’s history, that there are longer-term feedbacks, which “may begin to come into play on time scales as short as centuries or less,”¹⁸ such as “ice sheet disintegration, vegetation migration, and GHG [greenhouse gas] release from soils, tundra or ocean sediments.”¹⁹ When we take into account these longer-term feedbacks, carbon dioxide could have more than twice the effect on global temperatures than what is currently projected by climate models. For example, around 35 million years ago CO₂ levels were 900 to 1100 ppmv, which is where we will end up by the end of the century on our current path. Temperatures, however, were not 4° to 7° C warmer than preindustrial temperatures, as our climate models forecast; rather, they were around 16° C warmer.²⁰ The difference between focusing on short-term versus long-term feedbacks is the habitability of a large portion of the planet; for at around 11° C half the planet could be too hot for mammals.²¹ This is an area of land that “would dwarf that affected by rising sea levels.”²² The current proposals leading up to the Paris Agreement would likely lead to 3.5° C of warming by 2100, but over the long term they would likely lead to over 6° C of warming.²³ The difference between focusing on the short-term versus long-term

16. Ibid. 5.

17. The intended nationally determined contributions (INDCs) submitted by 186 countries leading up to the Paris climate talks are non-binding voluntary contributions by countries to reduce their emissions. They would likely lead to a warming of 3.5° C above preindustrial times if these commitments (through 2030) are realized and go no further in emissions reductions post-2030. See MIT’s Climate Scoreboard, <https://www.climateinteractive.org/tools/scoreboard/scoreboard-science-and-data>. The Conference of Parties also agreed that the INDCs will be reviewed every five years with the goal of ratcheting up emission reductions (Article 4.9) to hold “the increase in the global average temperature to well below 2° C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5° C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.” United Nations Framework Convention on Climate Change, COP21 (Dec. 12, 2015) Article 2.1 [a], 21, <http://unfccc.int/resource/docs/2015/cop21/eng/109.pdf>.

18. Hansen, “Target Atmospheric CO₂” 217.

19. Ibid.

20. Jeffrey Kiehl, “Lessons from Earth’s Past,” *Science* 331 (2011) 158–59 at 159.

21. Steven C. Sherwood and Matthew Huber, “An Adaptability Limit to Climate Change Due to Heat Stress,” *PNAS* 107 (2010) 9552–55 at 9552.

22. Sherwood and Huber, “Adaptability Limit” 9555.

23. Hansen, “Target Atmospheric CO₂” 217.

temperature rise might be the difference between the planet being able to support billions of people; for, at 4–6 ° C the carrying capacity of planet could be reduced to between a half a billion and a billion people.²⁴ Over the long term, post-2100 horizon, it is not only temperature that is higher but all of the impacts increase markedly. The current agreed upon target by the international community is 2° C or around 450 ppm CO₂. Yet current CO₂ levels (400 ppm) have not been this high for 3 million years,²⁵ when sea levels were between 50 and 80 feet higher than today²⁶ and then 15 million years ago,²⁷ when sea levels were between 80 and 130 feet higher than today.²⁸

The implications of this is that human beings are no longer historical agents acting out the human drama on the stage of the natural world.²⁹ Nor is it adequate to simply add to this that we are biological agents immersed in the natural world with an interactive relationship to the natural world; rather, we are geological agents, destabilizing planetary systems with effects that will play out on geological time scales of tens of thousands to possibly millions of years. It is for this reason that the International Commission on Stratigraphy is now going through a formal process of deciding whether human beings have pushed us out of the geological epoch in which civilization emerged and developed (i.e. the Holocene, where CO₂ levels were at 280 ppm) to a new era dominated by the influence of human beings (i.e. the Anthropocene).

While the Pontifical Academy of Sciences published a work entitled “Fate of Mountain Glaciers in the Anthropocene” by leading climate scientists, including the Nobel Prize-winning atmospheric chemist Paul Crutzen who proposed the concept of the Anthropocene, *Laudato Si’* does not offer a sufficiently descriptive account of the

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24. This is the view of two directors of leading climate institutes. Hans Joachim Schellnhuber, who is the director of the Potsdam Institute for Climate Impact Research in Germany has argued that at 5° C the planet could only carry around a billion people. See Hans Joachim Schellnhuber, “The MAD Challenge: Towards a Great Land-Use Transformation?” (Plenary Session of International Scientific Congress: Climate Change: Global Risks, Challenges & Decisions, March 12, 2009). The talk is no longer available online, but it was reported by James Kanter, “Warming Could Cut Population to 1 Billion,” *New York Times*, March 13, 2009, http://dotearth.blogs.nytimes.com/2009/03/13/scientist-warming-could-cut-population-to-1-billion/?_r=0. In an interview, Kevin Anderson the Director of the Tyndall Centre for Climate Research in England said, “I think it is extremely unlikely that we wouldn’t have mass death at 4C. If you have got a population of nine billion by 2050 and you hit 4C, 5C or 6C, you might have half a billion people surviving.” Jenny Fyall, “Warming Will ‘Wipe Out Billions.’” *Scotsman*, November 29, 2009, at <http://timetobebold.wordpress.com/2010/02/14/warming-will-‘wipe-out-billions’>.
25. M. E. Raymo et al., “Mid-Pliocene Warmth: Stronger Greenhouse and Stronger Conveyor,” *Marine Micropaleontology* 27 (1996) 313–26 at 323.
26. James Hansen, “Assessing ‘Dangerous Climate Change’” 6.
27. Aradhna K. Tripathi, Christopher D. Roberts, and Robert A. Eagle, “Coupling of CO₂ and Ice Sheet Stability Over Major Climate Transitions of the Last 20 Million Years,” *Science* 326 (2009) 1394–97 at 1394.
28. Ibid. 1394.
29. See Dipesh Chakrabarty, “The Climate of History: Four Theses,” *Critical Inquiry* 35 (2009) 197–222.

future to counteract the cultural focus on the relatively short term. The term “future” appears 29 times in *LS*, including references extending the common good (*LS* 159), solidarity (*LS* 159), and rights (*LS* 109) to future generations. Francis even seems to have a somewhat expansive sense of the future when he maintains that “the effects of climate change will be felt for a long time to come” (*LS* 170). Other times his language regarding the future is unspecified and open to interpretation as to whether he is thinking short term (2100) or long term (post 2100). This can be seen when he argues that the major tropical forests are important “for the entire earth and for the future of humanity” (*LS* 38) When *LS* speaks more specifically about the future, it defaults to this century: “if present trends continue, this century may well witness extraordinary climate change and an unprecedented destruction of ecosystems, with serious consequences for all of us” (*LS* 24). Even more commonly, *LS* speaks of the future in terms of the effects on the next generation and children. In extending the common good to future generations *LS* quotes the Portuguese bishops: “the environment is part of the logic of receptivity. It is on loan to each generation, which must then hand it on to the next. An integral ecology is marked by this broader vision” (*LS* 159).³⁰ The opening question of the subsequent paragraph, which was also the opening question (“at the heart of *Laudato si*”) ³¹ of the Vatican guide to the encyclical, asks, “what kind of world do we want to leave to those who come after us, to children who are now growing up?” (*LS* 160). While these excerpts speak of the next generation (our children), that same paragraph speaks of leaving an inhabitable planet to future generations.

This oscillation between an undetermined sense of the long-term future and the specificity of the next generation is understandable; yet, to expand the reaches of our imagination and to grasp the true extent and gravity of our actions we need to provide some definite markers to direct the eye of our imagination so that we can peer into the deep future. Let’s look at two possible markers. First, if CO₂ levels reach 560 ppm, which they will on our current course by 2050, it could take up to 400,000 years for atmospheric CO₂ levels and ocean chemistry to return to their present levels.³² If we think of a single generation as 25 years, then this is 16,000 generations. When readers of *LS* read “future generations” throughout the encyclical, I doubt they had this in mind. Second, let us look at coral reefs and mass extinctions in the Earth’s history. The

30. The image here is of a resource that one generation passes onto the subsequent generation and that generation passes it on to the next. Environmental problems are often not properly distinguished and prioritized. Climate change is not a problem of running out of a particular resource. It is the problem of destabilizing a system, which could then react like an ornery beast (to use the image of Wallace Broecker, “Ice Cores: Cooling the Tropics,” *Nature* 376 [July 20, 1995] 212–13) creating havoc on natural ecosystems and human civilization. In 1987, CO₂ levels were at 350 ppm, which was the upper limit for avoiding multimeter sea-level rise and for preserving the world’s coral reefs. Today they are at 400 ppm and their effects are not simply being passed onto our children, but could have effects for tens of thousands of years.

31. “Vatican Press Office, “*Laudato Si*: A ‘Map,’” *America*, June 18, 2015, <http://americamagazine.org/issue/laudato-si-map>.

32. David Archer et al., “Atmospheric Lifetime of Fossil Fuel Carbon Dioxide,” *Annual Review of Earth and Planetary Sciences* 37 (2009) 117–34 at 131.

oceans absorb around 30% of our CO₂ emissions, and this alters their chemistry (increasing acidity). As a result, it becomes difficult and at some point impossible for organisms to make their calcium carbonate skeletons, including coral reefs, which support 25% of the biodiversity in the oceans, and some phytoplankton. If the Paris Agreement carbon reduction commitments are realized through 2030 and go no further in emissions reductions post-2030, then CO₂ levels will likely rise to 675 ppm by 2100.³³ While atmospheric CO₂ levels have been much higher in the Earth's history, there is no known geological precedent for the "all-important rate of change."³⁴ Indeed, we are increasing CO₂ levels 100 times faster than the Paleocene/Eocene extinction event 56 million years ago.³⁵ According to work on mass extinctions by one of the most important researches in the history of the science of coral reefs, "there can be no evolutionary solution for such a rate of change."³⁶ A 600 ppm world³⁷ with rates of change that we have seen over the past decades will likely commit the Earth "to a trajectory from which there will be no escape"³⁸ as the world enters a sixth great mass extinction. The five preceding great mass extinctions "left the Earth without living reefs for at least four million years."³⁹ If we really squint deep into the future our actions could extend for four million years (i.e. 160,000 generations).

We must speak of specific time frames of human effects because a future that is not described in some way is a future that cannot be imagined. The sciences provide us some glimpse of the possible effects of our actions. There are, however, factors that inhibit a habitual intellectual connection to the deep future and a sense of responsibility to act justly in relation to that future.⁴⁰ First, one of the great difficulties with looking into the deep future is that it is "suffused with our absence"⁴¹ and "its very life emphasizes our helpless death."⁴² The "power granted to humans by foresight is enormous, but so is the cost."⁴³ Perhaps it is the denial of death that is a central dynamic in our present culture as we cram more and more into the present and are enchanted by the latest smartphone apps that allows us to reign supreme in an ever-narrower world,

33. See MIT's Climate Scoreboard: <https://www.climateinteractive.org/tools/scoreboard/scoreboard-science-and-data>.

34. J. E. N. Veron, "Mass Extinctions and Ocean Acidification: Biological Constraints on Geological Dilemmas," *Coral Reefs* 27 (2008) 459–72 at 470.

35. Noah S. Diffenbaugh and Christopher B. Field, "Changes in Critical Terrestrial Climate Conditions," *Science* 341 (2013) 486–92 at 490.

36. Veron, "Mass Extinctions" 470.

37. J. E. N. Veron, "The Coral Reef Crisis: The Critical Importance of <350 ppm CO₂," *Marine Pollution Bulletin* 58 (2009) 1428–36 at 1428.

38. Veron, "Mass Extinctions" 470.

39. *Ibid.* 459.

40. Here I will indicate several important factors, but this list is in no way meant to be exhaustive.

41. Stewart Brand, *The Clock of the Long Now: Time and Responsibility* (New York: Basic Books, 1999) 150.

42. *Ibid.*

43. *Ibid.*

allowing us to anesthetize ourselves from our radical finitude and inevitable death. A death that is not here in the present, but is certainly sometime in the future. In this instance, the imagination is truncated by the fear of death.

Second, while some disciplines in the natural sciences expose us to the possible contours of the deep future, if one holds to a scientific worldview that sees the human being as an accident that came into being through chance, then there is no intrinsic teleological connection between human beings and the Earth. There is only an accidental material connection. Without such an intrinsic teleological connection the Earth of the deep future will appear alien and foreign to the human community and thus the imagination will resist contemplating such a future. The future of the Earth, without human interference, would include ice ages.⁴⁴ It will also include continued continental drift that will likely lead over the next 50 million years to Africa colliding with Europe, while Australia (over the next 250 million years) will likely collide with Asia.⁴⁵ Such movement of tectonic plates will produce countless earthquakes, tsunamis, and volcanic eruptions. There is also the possibility, even likelihood, over long periods of time for volcanic super-eruptions like the one 640,000 years ago in what is today Yellowstone National Park⁴⁶ that devastated an area around 10,000 km.⁴⁷ Earth is also susceptible every 100,000–600,000 years to impacts from asteroids that are around 1 km in diameter, which today would likely kill tens of millions of people.⁴⁸ Around every 100 million years asteroids 10 km in diameter, which was the size of the one that hit Mexico 65 million years ago and contributed to the extinction of the dinosaurs, strike the Earth and super-volcanoes with enough lava to cover a continent erupt.⁴⁹ The Earth of the deep future does not appear as “our common home.” Without a sense of the future Earth as our common home, it is difficult to care for it.

Third, some scientific disciplines can introduce us to the deep future. Since they, however, understand themselves as being concerned with facts not values, they cannot give an adequate account of our responsibility for the deep future. In this case, science

44. The next ice age is already delayed from the burning of fossil fuels.

45. The continents will likely again form one mega-continent, which scientists have dubbed Pangea Ultima, similar to the super-continent Pangea 250 million years ago. NASA Science News, “Continents in Collision: Pangea Ultima,” October 6, 2000, http://science.nasa.gov/science-news/science-at-nasa/2000/ast06oct_1.

46. The super-volcano in Yellowstone National Park in Wyoming has had three cataclysmic eruptions over the past 2.1 million years. US Geological Survey, “Volcanic Hazards at Yellowstone,” http://volcanoes.usgs.gov/volcanoes/yellowstone/hazard_summary.html.

47. Bill McGuire, *Surviving Armageddon: Solutions for a Threatened Planet* (Oxford: Oxford University, 2005) 110. Bill McGuire is a professor of Geophysical Hazards at University College London.

48. *Ibid.* 17.

49. *Ibid.* 16–17.

allows for the possibility of imagining the deep future, but does not provide adequate grounds⁵⁰ for responsibility for the deep future.⁵¹

Fourth, while many philosophies maintain that human beings are free, many struggle to give an account of acting justly in relation to future generations; for “the *bête noire* of any theoretical approach that includes future generations as recipients of justice”⁵² is the non-identity problem. Though this problem has many formulations the core of the problem rests on the fact that if causality was just slightly changed in the

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50. Where scientific materialism holds sway, science is not only inadequate in terms of providing an account of human responsibility but it is hostile to the very idea of human freedom.
51. Ian Barbour has developed a fourfold typology for the relationship between the sciences and theology: conflict, independence, dialogue, and integration. The dialogical and integrational relationship are operative in this article. The dialogical relationship includes comparison of methods, the discovery and exploration of boundaries of the two disciplines, and the comparison of doctrines and theories. The integrational relationship includes the possibility of theology and science informing each other directly such that “some sort of integration is possible between the content of theology and the content of science.” See Ian G. Barbour, *Religion and Science: Historical and Contemporary Issues* (San Francisco: HarperCollins, 1997) 98. The interchange between the findings of the sciences and the content of theology should be such that scientific disciplines allow each of the dialogue partners, in the words of John Paul II, “to become not less itself but more itself.” This will allow “for a common interactive relationship in which each discipline retains its integrity and yet is radically open to the discoveries and insights of the other.” See John Paul II, “Letter to the Reverend George V. Coyne SJ, Director of the Vatican Observatory,” in *Physics, Philosophy, and Theology: A Common Quest for Understanding*, ed. Robert J. Russell, William R. Stoeger, and George V. Coyne, (Vatican Observatory, Vatican City State: Libreria Editrice Vaticana, 1988) M8–M9. In this article, the discoveries of climate science reveal the possible long-term effects of our present actions. These scientific discoveries push the boundaries of common theological ways of imagining and ethically relating to the future (dialogical relationship). These scientific insights can also be integrated (integrational relationship) to inform our theological imagination such that the horizon in which theologians reflect upon human beings’ ethical relationship to the future can be expanded. My treatment of the deep future allows the sciences to inform theology such that theology can “become more itself” without reducing the content of theology to the findings of the sciences, for disciplines must retain their integrity. These same scientific findings reveal the boundaries of the scientific enterprise (dialogical relationship). While the sciences can describe some of the basic contours of the deep future, they can neither respond to the factors that inhibit our imagining the deep future nor can they offer an account of the responsibility of human beings for their actions that will set in motion effects that will change the course of the deep future.
52. Catriona McKinnon, *Climate Change and Future Justice: Precaution, Compensation, and Triage*, Routledge Issues in Contemporary Political Theory (New York: Routledge, 2012) 41.

past, you and I would not exist. Thus in looking to the future, the particular people who come into existence “can have no complaint against us that we have harmed them through our choices, because if we had acted differently they would not have existed at all, and it is always better to exist than not to exist: there is no way other than the way we in fact acted which would have caused the existence of the future people with the putative complaint against us.”⁵³ Such a view lessens the sense of intergenerational justice. In this case, human freedom is preserved, but there is a reduced sense of ethical responsibility for future generations.

Fifth, while Christianity also has a strong sense of human responsibility, and it has resources to respond to these problems concerning the future, there are elements of Christianity that have been interpreted in a way that diminishes human responsibility for future generations. For instance, 49% of Americans (43% of Catholics) think the severity of recent natural disasters are signs of the end times as described by the Bible and not evidence of climate change.⁵⁴ Such an interpretation of the apocalyptic texts in the New Testament tends to distance human beings from their responsibility for the unfolding climate crisis. Respondents not only distanced themselves from their responsibility for the climate crisis, but they also appeared to distance themselves from the gravity of their choices; for, 39% of Americans, including 61% of Hispanic Catholics and 38% of white Catholics, believe God would intercede to prevent humans from destroying the Earth.⁵⁵ In this case, there is no opening up to the deep future and there is a diminished sense of responsibility.

In light of this problematic situation, I will not identify all of the theological resources to respond to these factors; rather, the central question that I will address is, How can we bring together systematically (albeit somewhat schematically) the doctrines of creation, incarnation, eschatology, and providence in order to begin to address these factors that inhibit our imagining and taking responsibility for our actions whose effects will extend into the deep future?

In part one I have described the problematic situation from which I have formulated the question for inquiry. In part two I will first begin with Christology and argue for the intrinsic teleological connection between creation and the incarnation. Second, I will turn to the New Testament teaching concerning Jesus’ inauguration of the reign and kingdom of God. The treatment of the inauguration of the kingdom of God, with its already-but-not-yet character, sets up the third moment of part two where I will show the intrinsic teleological connection between the incarnation, and by extension the doctrine of creation, with the eschaton. Establishing the intrinsic teleological connection between creation, incarnation, and the eschaton will allow creation, and by extension

53. Ibid.

54. Robert P. Jones, Daniel Cox, and Juhem Navarro-Rivera, *Believers, Sympathizers, & Skeptics: Why Americans are Conflicted about Climate Change, Environmental Policy, and Science: Findings from the Public Research Religion Institute/American Academy of Religion: Religion, Values, and Climate Change Survey* (2014) 23, <http://publicreligion.org/site/wp-content/uploads/2014/11/2014-Climate-Change-FINAL.pdf>.

55. Ibid. 32–33.

what we have learned about creation through the sciences, to inform the not-yet character of the coming kingdom of God (eschatology). Part two responds to the first three factors that diminish our sense of the deep future. First, it addresses the fear of death by articulating the grounds for Christian hope; namely, that the reign and kingdom of God was inaugurated in Christ and will be fully realized in the eschaton through the sovereignty of a loving God. Second, it responds to the problem (factor two) of the lack of a connection between human beings and the future of the Earth with its dynamics that seem alien to the human community. Third, it elucidates the scriptural understanding that the coming of the kingdom requires a decisive response from human beings, which together with the resurrection (as the clearest sign of the inauguration of the reign and kingdom of God) shows the significance of human free choice. This begins to respond to those factors dealing with human responsibility (i.e. factors three, four, and five). Part three will further strengthen the grounds for Christian hope by showing how it is possible for God to realize God's kingdom despite the capacity for human beings to frustrate God's will in individual instances. Part three will respond to the third factor (no account of human freedom and responsibility) and fourth factor (an insufficient account of acting justly in relation to the future) by articulating an account of divine providence that shows how human beings enter into the eternal plan of providence and participate in the realization of God's kingdom of universal peace and justice. This account of divine providence will also address the fifth factor inhibiting opening up to and taking responsibility for the deep future; namely, an understanding of God's sovereignty that diminishes the causality of created natures. Without a sense of the integrity of created natures, the religious imagination will not be open to the possibility of the unfolding of life on Earth into deep time and the possibility of human beings having responsibility (to some extent) for the direction this unfolding takes.

Opening Our Imaginations to the Deep Future: Creation, Incarnation and Eschatology

Jesus' full humanity, "like us in all things but sin" (Heb 4:15, NRSV), is reaffirmed in the Council of Chalcedon. The full humanity of Jesus indicates that Jesus is a part of the history of the human community and the history of the natural world (the Earth's history) and by extension the history of the cosmos. The Council also affirmed that Jesus possessed two natures—divine and human—in one person, the person of the Logos. To hold onto the unity (one person, the person of the Logos) and plurality (two natures—divine and human) of Christ, the plurality must be grounded in a prior unity. For a plurality cannot ground a unity. In order for there to be a unity in plurality, "the plurality must be seen as plural moments arising from a single being, for a subsequent conjunction of elements existing separately on their own cannot form an essential unity."⁵⁶ The plurality of natures in Christ is grounded in the prior unity of the Logos; namely, in the active potency, which is grounded in God's pure actuality, of the Logos to empty itself in

56. Joseph H. P. Wong, *Logos-Symbol in the Christology of Karl Rahner* (Rome: LAS, 1984) 77.

another (i.e. humanity) while remaining divine. In light of the doctrine of the Trinity we cannot say that the reality of three persons diminishes the oneness of God; rather, we must say the plurality of persons is constitutive of the perfected unity or oneness of God. Similarly in light of the doctrine of the incarnation we cannot say the infinite and immutable divine Logos's becoming human suggests that the divine Logos is less perfect; rather, the possibility of the Logos becoming human is indicative of the height of God's perfection. The condition of the possibility of the unity of the created and uncreated natures of Christ is grounded in the perfection of the Logos. Since this possibility of the unity of God and a human being is grounded in the perfection of the Logos and was willed by God and realized in the incarnation, we must say there is an intrinsic unity between the distinct orders of creation, God giving a finite gift other than God (though this gift participates in a limited way in God's infinite act of existence), and redemption (God giving God's self). Since this possibility of the unity of divine and human natures is grounded in the perfection of the Logos, creation finds its ground in the higher possibility of God giving God's self. In addition, if God is self-communicative in God's self (as revealed in the doctrine of the Trinity), then it is more theologically coherent to hold that the sufficient (not necessary) reason for God creating is in order to realize the higher possibility of God giving God's self.⁵⁷ In adopting this position we maintain an intrinsic teleological connection between creation and the incarnation because the purpose or end (the telos) of God creating is God communicating God's self.

Jesus Inaugurating the Reign and Kingdom of God

There is a "wide consensus in biblical scholarship that the kingdom of God was the overarching theme of the historical Jesus and the Bible in general."⁵⁸ The coming of God's reign and kingdom was the centerpiece of Jesus' ministry, with the expression "reign of God" occurring 150 times in the New Testament.⁵⁹ Even though the "specific term 'kingdom' or 'reign of God' is a New Testament formulation, the notions

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57. This understanding of the purpose of the incarnation is indebted to Karl Rahner. See Karl Rahner, "Christology within an Evolutionary View of the World," *Theological Investigations V: Later Writings*, trans. Karl H. Kruger (New York: Seabury, 1975) 184–92. The dominant tradition in the West has held that the purpose of the Incarnation was to blot out the sin incurred from the fall of Adam and Eve (e.g., see Thomas Aquinas, *Summa Theologiae* III q. 1, a. 3). Nevertheless another explanation, stemming from the early Greek patristic authors and culminating in the theology of Duns Scotus (d. 1308), held otherwise. For Scotus, "the Incarnation represents not a divine response to a human need for salvation but instead the divine intention from all eternity to raise human nature to the highest point of glory by uniting it with divine nature." See Ilia Delio, "Revisiting the Franciscan Doctrine of Christ," *Theological Studies* 64 (2003) 3–23 at 9, who also covers the history of this alternative understanding.
58. Mark Saucy, *The Kingdom of God in the Teaching of Jesus in 20th Century Theology* (Dallas: Word, 1997) 254.
59. Donald Senior, "Reign of God," in Joseph A. Komonchak, Mary Collins, and Dermot A. Lane, eds., *The New Dictionary of Theology* (Collegeville, MN: Liturgical, 1990) 851–61 at 856.

underlying this concept of God's ultimate sovereignty have deep roots within biblical history and the Hebrew Scriptures."⁶⁰ It is a metaphor that expresses "God's sovereignty over every aspect of Israel's life. God's saving acts in history, God's creation and sustaining of the world, God's lordship over the nations, God's promise of ultimate salvation and peace—all of these are expressed in the metaphor of God's reign."⁶¹ The failure of Israel's kings to bring freedom, peace, and flourishing led in post-exilic theology to an eschatological hope in God's rule such that "what had not and could not be achieved by human effort would be finally accomplished by God's own intervention."⁶² This eschatological shift was central for the New Testament use of the metaphor.

In the New Testament, Jesus is the proleptic inbreaking of the kingdom of God. Through Jesus' ministry the kingdom is at hand (Mark 1:14–15), has come upon us (Matt 12:28; Luke 11:20), is in our midst (Luke 10:7–11; 17:20). The healings, exorcisms, and the preaching of the good news to the poor and marginalized are signs that the reign and kingdom of God is present in Jesus (e.g. Matt 11:4–5). They reveal that the kingdom is not simply about the interior life of the person, but "the physical condition of the human body and nature itself."⁶³ Establishing the reign and kingdom of God "means the transformation not only of the human heart but of the oppressive social structures that dehumanize and exclude the poor and defenseless from participation in the family of Israel."⁶⁴ Indeed, the reign and kingdom of God is "characterized by forgiveness and reconciliation, by universal justice and peace."⁶⁵

The coming of the reign of God in Jesus is a free gift of God that provokes a response: "the time [*kairos*] is fulfilled, and the kingdom of God has come near; repent, and believe in the good news" (Mark 1:14–15; Matt 4:17). It is the divinely given opportunity that ushers in an urgent and decisive moment that can provoke a crisis because it demands a conversion, a change of one's life in response to the gift of the reign of God (Matt 13:44–46). Contained within this decisive moment is God's judgment, and a failure to be attentive to and discern the inbreaking of God's reign and kingdom and to respond to it appropriately will lead to reproach and death (Matt 13:47–50; 25:1–13, 31–46).

These texts that announce the imminent presence and "already" character of the reign and kingdom of God in Jesus must, however, be held in a dialectical tension with other sayings and parables of Jesus which suggest that the reign and kingdom of God is a future event. The parables of Jesus, as Joachim Jeremias argued, reveal that in Jesus the kingdom is present, but the kingdom has not been definitively realized. The parables of the mustard seed, the leaven, the sower, and the patient husbandman all "looked forward to the future culmination of something begun in the present."⁶⁶ In addition, the

60. Ibid. 851.

61. Ibid. 856.

62. Ibid.

63. Saucy, *The Kingdom of God* 323.

64. Senior, "Reign of God" 858.

65. Ibid.

66. Saucy, *The Kingdom of God* 20.

not-yet character of the reign and kingdom of God is revealed in the Lord's Prayer, when Jesus prays for the coming of God's kingdom ("Thy Kingdom come," see Luke 11:2–4; Matt 6:10).⁶⁷ Furthermore, "judgment parables such as Matt 13:24–30 (see also 13:36–43 and 24–25) project the consummation of the reign of God as future event."⁶⁸ The apocalyptic discourses in the synoptic Gospels (Mark 13; Matt 24–25; Luke 17, 21) refer to the last days "when God breaks into history and brings about a new heaven and a new earth."⁶⁹ After all, "it is God's kingdom to bring, and we can only pray for its coming ("Thy Kingdom come") and look forward to it in hope."⁷⁰ There is then an "already now, but not yet" character to the kingdom of God.

As transcendent and future, the kingdom of God is incomprehensible. As those texts that emphasize the immanent character of the reign of God in Jesus have a heightened sense of the *kairos*—the decisive moment where a decision must be made—the apocalyptic texts which reveal the end time events also counsel an eschatological expectation where one must be vigilant and follow the way of the Lord lest "he finds you asleep when he comes suddenly" (Mark 13:36; Matt 24:43–44; Luke 12:39–40). This is because "there are not two different kinds of reign proclaimed by Jesus but only the one same rule manifesting itself in his presence and then appearing on a cosmic scale."⁷¹ It is "impossible to dissociate the realization of the *basileia* in the present from the person of Jesus and, in so far as there exists an indissoluble connection between the dawn of God's reign and its coming to full manifestation in glory, the significance of Jesus for the perfect kingdom is evident."⁷² Thus while there is in Jesus' bringing of the kingdom a distinction between past, present, and future, there is continuity. Jesus is the Messiah that was anticipated in the past, the one through whom the reign and kingdom of God has entered and reigns in history (present), and the one through whom the final consummation of the universe will be realized in the future.

For early Christians,

the conviction that the world would be transformed and that they would reign with the risen Jesus in glory gave them a horizon of hope against which they could interpret their present sufferings, and the insistence on constant vigilance helped them to find significance and ethical direction in their actions in the present.⁷³

67. Senior, "Reign of God" 859.

68. *Ibid.*

69. Daniel Harrington, "Kingdom of God," *The New Dictionary of Catholic Social Thought*, ed. Judith A. Dwyer (Collegeville, MN: Liturgical, 1994) 508–513 at 512.

70. John R. Donahue, and Daniel J. Harrington, *The Gospel of Mark*, Sacra Pagina Series 2 (Collegeville, MN: Liturgical, 2002) 381.

71. Rudolf Schnackenburg, *God's Rule and Kingdom*, trans. John Murray (New York: Herder & Herder, 1963) 160.

72. *Ibid.* 163.

73. Donahue and Harrington, *The Gospel of Mark* 382. See also Schnackenburg, *God's Rule and Kingdom* 177.

And, “in contemporary eschatology, the theme of continuity not only writes forward the future, but also calls Christians to transform the present on the basis of the *telos* for which they hope.”⁷⁴ The proper response to the inbreaking of the kingdom and the gift of the reign of God, is to participate in the dynamism of the kingdom of God through accepting Christ’s call to transform the lives of individuals and the social institutions and structures that oppress and alienate them. While “the future kingdom of God provides the horizon and goal for Christian action in the present . . . it remains God’s prerogative to bring it in its fullness. We do not bring it or build it up.”⁷⁵ Yet, “like John the Baptist, Christians can look toward, prepare for, suffer for (see Matt 11:12; Col 1:24; Mark 13:20), and remove obstacles from the coming kingdom.”⁷⁶ Reconciling God as the bringer of the kingdom, yet holding onto the significance of human actions and our responsibility, will be the subject matter of the final section of this article.

Creation and Eschatology: Implications for the Resurrection of the Body. We have seen continuity between the messianic expectation of Jesus, Jesus inaugurating the reign and kingdom of God, and the unfolding of the reign and kingdom of God until it reaches its fullness in the Parousia. Now let us reflect on the resurrection as the “most dramatic sign of the inauguration or presence of God’s kingdom.”⁷⁷ The resurrection accounts reveal that the new heaven and new earth is not a realm discontinuous with our embodied selves and our particular histories. The discontinuity is expressed by Jesus appearing behind closed doors (John 20:26) and even locked doors (John 20:19), suddenly vanishing (Luke 24:31), transcending the limits of time in being present to the end of the age (Matt 28:20), being carried up into heaven (Luke 24:51). These texts reveal that the resurrected Jesus “now shares God’s own capacity to be present in a way more instant and immediate than is possible to any merely mortal body, whose spirit is confined by the limits of physical capability and location.”⁷⁸ In light of this new capacity, Jesus has to show his disciples that it really is himself (continuity). He has to demonstrate to them that he is not a ghost “for a ghost does not have flesh and bones as you see that I have” (Luke 24:39). He does this by showing them his hands and feet that carry the wounds of his crucifixion (Luke 24:40; John 20:27).

The implication that the resurrected Jesus bears the wounds of his crucifixion also suggests that Jesus’ history and the objective patterns and social relationships of his context have eternal significance. For Jesus bears the deformities of the social and political context of his time. The whole history of Jesus’ abandonment, betrayal, passion, and death find their culmination in his crucified body (his disciples fall asleep in

74. Jeannine Hill Fletcher, “Eschatology,” in *Systematic Theology: Roman Catholic Perspectives*, ed. Francis Schüssler Fiorenza and John Galvin (Minneapolis, MN: Fortress, 2011) 621–51 at 641.

75. Harrington, *Kingdom of God* 512.

76. *Ibid.*

77. Harrington, “Kingdom of God” 510.

78. Luke Timothy Johnson, *Living Jesus: Learning the Heart of the Gospel* (New York: Harper Collins, 1999) 17.

his hour of need, they abandon him, Peter denies him, the chief priests and elders hand him over to the Roman governor of Judea, who oppressively occupies Jerusalem, who then crucifies him according to Roman law). This history, whose marks remain on the body of the resurrected Jesus, is part of the identity of the resurrected Jesus. While the deformities of those systems and the choices of those who capitulated to these systems are eternally marked on the resurrected Jesus because of the redemptive power of the Father, those choices are not ultimate; they are redeemed. This redemptive power is demonstrated in how Jesus greets his disciples, who abandoned him in the garden of Gethsemane, not with condemnation, but with peace (Luke 24:36; John 20:26). There is continuity between the present unfolding kingdom and its fullness not only in its privations and negations, but also in its positive aspects. This redemptive power mediated through Christ in his resurrected body gathers the disciples together after they scattered and abandoned Jesus in the garden, not as a group huddled behind closed or locked doors, but as a group joined in faith, hope, and love missioned to spread the good news of Christ to the world (Matt 28:19–20). This group (the church) is the embodied effect and sacramentalization of Christ's redemptive power. The resurrected body not only bears the marks of his crucifixion, but becomes an aspect of the means for mediating Christ's redemptive power in the present and into the future.

Following Paul's argument (that if Christ is raised, then the followers of Christ will be raised [1 Cor 15: 12–58]), and the subsequent development of the doctrine of the resurrection of the body, we can argue that our histories and the objective patterns and social relationships in the past, present, and into the deep future have eternal significance. The eternal significance of our choices and histories does not negate the notion of the final definitive bringing of the new kingdom; rather, it simply indicates that there is a continuity between our embodied self (and by extension the created world), our history, and the final eschatological fulfillment. The resurrection accounts are not only an analogue for the eternal significance of our choices, but because it is a resurrection of the body they provide further evidence for the continuity between creation and eschatology.

Unity of Creation, Incarnation, and Eschatology and the Expansion of the Christian Imagination

This section will bring together the various threads of the argument of part two to create theological conditions for the opening up of the imagination to the deep future. There is not only an ontological unity between creation and the incarnation, but there is also an intrinsic teleological connection between creation and the incarnation because, as I have argued, the purpose of creation is incarnation. The effect of God communicating God's self in the life, death, and resurrection of Christ is the inauguration of the kingdom of God. If Christ inaugurates the kingdom, then there must be a unity between the Christ event in history and the eschatological Christ event. If the unity between creation, incarnation, and ultimate fulfillment is real it cannot simply be concerned with thematic connections between theological doctrines; rather, there must be an ontological unity. If a plurality cannot ground a unity, then the ontological unity between the humanity and divinity of the incarnate Christ and the eschatological Christ must be

grounded in the Logos. The new creation in the eschaton cannot be added on from outside, but creation must have the potentiality to be transformed from within; otherwise, there would neither be a real unity between the divinity of the Logos and a human nature in the incarnation, nor would there be a unity between the resurrected Jesus and his body. There is then an ontological unity between creation, incarnation, and the eschaton, which is grounded in the active potentiality of the Logos. The Logos is the one through whom all things come into existence, the one who in becoming fully human while remaining fully God is the absolute self-revelation of God in history in his life, death, and resurrection, and the one through whom all things reach their ultimate fulfillment. The incarnation, then, is the proleptic final cause of God creating. The final cause is the realization of the kingdom of God, where God will be all in all (1 Cor 15:28). Here we see a teleological connection between creation, incarnation, and the eschaton.

The teleological connection between creation, incarnation, and the eschaton does not mean the fulfillment of creation comes as a result of a steady evolution of the Earth's history and cosmic history. If we return to the resurrection as the primary revelatory analogue for the eschaton, then we see that the resurrection came out of a catastrophe.⁷⁹ Jesus' life did not unfold according to nature's course such that Jesus died in bed at the end of a long life; rather, he was arrested, scourged, crowned with thorns, and crucified. This was an abrupt and violent death;⁸⁰ yet, God brought new life through the resurrection in the context of its abrupt and violent end.⁸¹ This means that God can realize God's kingdom in the context of catastrophe. That catastrophe can be at human hands, as happened to Jesus. In our age the catastrophe from human hands can come from a full-scale nuclear war or rapid high CO₂ human-induced climate change (as is happening now). An abrupt catastrophe could also come about, as we have seen, through natural causes like super-volcanoes or asteroid impacts.⁸² These are all instances of relatively abrupt changes initiated by human beings or natural causes that God would respond to as God responded to the contingent event of Jesus' death by crucifixion with resurrection. These are not events initiated by God, though God, in

79. I have drawn upon the resurrection as the primary revelatory analogue for holding onto the eternal significance of human free choice. Here I will return to this analogue to illuminate our thinking about creation and eschatology.

80. I am assuming here that the Christ's passion was a contingent event. It was necessary that Jesus die, but the manner of his death was not necessary. More precisely, the Father did not will Jesus' crucifixion; otherwise, we end up with a rather awful doctrine of God.

81. This insight of using the death and resurrection of Jesus as a model to deal with the end of earth comes from Denis Edwards, *How God Acts: Creation, Redemption, and Special Divine Action* (Minneapolis, MN: Fortress, 2010) 157. My argument for the unity of creation, incarnation, and eschatology was arrived at independently of Denis Edwards; yet, in consulting Edwards's work on the question of the end of the earth I noticed that he makes a similar argument to mine.

82. Each of these terrible human and naturally caused events could bring down civilization but would be unlikely to cause human extinction. Earth's history shows us that life on earth is remarkably resilient.

fidelity to the intelligibility of God's creatures, could permit them.⁸³ The apocalyptic texts of the Gospels counsel an eschatological expectation of vigilance in following the way of the Lord, lest "he find you asleep when he comes suddenly" (Mark 13:36; Matt 24:43–44; Luke 12:39–40). These texts are envisioning God coming suddenly not in response to catastrophic events initiated by creatures, but solely on God's terms. And while we must be open to God bringing the full realization of the kingdom of God at any time, the vigilance to the reign of God in our time requires a greater attention to the effects on "the least" (Matt 25:31–46) in the deep future. In our age of unfolding ecological catastrophe, in order to be true to the *kairos*, the decisive moment of the decision for or against God and God's kingdom, we must see it not only in terms of our choices in relation to others in the here and now, but more importantly those in the deep future who will experience the most profound effects of our actions. It is only if we allow creation (now illuminated by climate science) to inform eschatology that we can truly take possession of this decisive moment.

Let us examine how creation can inform eschatology. The argument for the ontological unity and teleological connection between creation, incarnation, and the eschaton must be brought to bear on the not-yet character of the kingdom of God. If there is a unity between creation, incarnation, and the eschaton, and if God creates in order to communicate God's self, then the unfolding of creation is necessary for God's self-communication. In creation creatures share in the perfection of existence (and as such creatures have an intrinsic value), and even more importantly creation is the condition of the possibility of God communicating God's self to those creatures who are in their graced natures open to the infinite. We cannot know the day or hour and we must avoid a vision of pure continuity where the eschaton simply arrives at the end of a long evolutionary progression of Earth and the universe such that eschatology is reduced to a developmental reading of cosmology. We must, however, be open to the possibility that God's purpose for human beings as earthlings involves the long unfolding of life. First we should be open to this possibility on theological grounds. The triune God is self-communicative in God's self. If God creates in order to give God's self, then it is fitting that creation will be ordered⁸⁴ for God to communicate God's self abundantly with creatures. This might come about through the emergence of created spirits to whom God communicates God's self through the Incarnation of the Word and the sending of the Spirit on millions or billions of planets over the long history of the cosmos. This might also come about through the long history of the Earth. That is to say that, despite the possible catastrophes in the deep future of the Earth leading up to the ultimate catastrophe of the wiping out of all life when the sun becomes a red

83. On the limits of our knowledge of God see Richard W. Miller, "The Mystery of God and the Suffering of Human Beings," *Heythrop Journal* 50 (2009) 846–63.

84. This term should not be understood in a deterministic way, but in terms of the intelligibility operative in the interplay between physical laws and chance that becomes a creative way of exploring, testing out, tweaking, and ultimately evolving new structures and organisms. See Elizabeth A. Johnson, *Ask the Beasts: Darwin and the God of Love* (London: Bloomsbury, 2014) 172.

giant, we should be open to the possibility that part of the order of creation is that life is resilient because the ultimate purpose of life is the self-communication of God. Second, we should be open to this possibility on scientific grounds. We see in Earth's history that while life on Earth can go through unimaginable catastrophes (five great mass extinctions) life is amazingly resilient and is very difficult to wipe out in its entirety.⁸⁵ Though human beings are relatively new in the Earth's history, we should be open to the resiliency of human beings (especially because of human intelligence) and thus to the possibility that threats to the future of the Earth are not likely to destroy all life on Earth or wipe out all human beings. This is not to diminish our responsibility. Ultimately it should heighten our responsibility by allowing theological principles from the doctrine of God coupled with the book of nature, as disclosed by the natural sciences, to inform (not determine) our eschatology so that our eschatology does not truncate our imagination, but rather opens it up so that we come to terms with the *kairos* of the reign of God, which is at the heart of eschatology.

Divine Providence and Deep Responsibility

While the continuity between our history and the resurrection reveals the significance of our choices, "it remains," in the words of Daniel Harrington, "God's prerogative to bring it [the kingdom of God] in its fullness. We do not bring it or build it up."⁸⁶ How do we hold together the reality and eternal significance of our choices (our deep responsibility), yet hold that God is the bringer of the kingdom? If God brings the kingdom and we do not build the kingdom up, aren't our choices superfluous? Do we not lose all sense of the decisive moment (*kairos*) and character of our choices? In addressing these questions in part three, I will first ground my reflections in the Scriptures; for in order to preserve the reality and significance of human free choice the central biblical theme of the kingdom of God should not be viewed in isolation; rather, it must be informed by other biblical themes and the divine-human dialogue revealed in Scripture. Second, I will sketch a theology of providence that is faithful to the biblical themes and addresses the central questions of this section. Both aspects of the providence section draw exclusively upon the work of the late John H. Wright, SJ.⁸⁷

85. On the other hand, a civilization of ten billion people, which is what is forecasted for 2100, with more than 3° C of warming, relative to preindustrial temperatures, is widely considered to be vulnerable to collapse as hundreds of millions of refugees fleeing drought and sea-level rise create such instability that governance breaks down in many nation-states. The question then becomes, in the words of Lester Brown, "How many of our states must fail before our global civilization begins to unravel?" Lester R. Brown, *World on the Edge: How to Prevent Environmental and Economic Collapse* (New York: Norton, 2011) 12.

86. Harrington, "Kingdom of God" 512.

87. The reason I draw exclusively on John Wright's work to treat the question of the third part is fourfold. First, Wright grounds his work in Scripture. His theological treatment of providence comes out of his examination of Scripture. Second, his examination of

Scriptural Foundations for the Doctrine of Providence

In his two-volume work *Divine Providence in the Bible: Meeting the Living and the True God*, Wright reviews the whole of Scripture to discover the “biblical teaching about God as Lord of nature and Lord of history, and about the interaction of divine

Scripture is based not on a few selected passages, but on an examination of all the texts in the Old and New Testaments. Third, Wright overcomes a central problematic assumption that runs through the whole history of theology; namely, that God’s sovereign providence requires that God’s election or decrees cannot be frustrated in individual instances. For those who grounded God’s sovereignty in God’s foreknowledge (patristic authors prior to Augustine, Molina, etc.), this assumption led to a philosophical contradiction; namely, God knowing what free creatures would do in every possible set of circumstances (i.e. free conditioned futures) before any actual divine decree (i.e. antecedent to God’s knowing what God will actually will to communicate). For those who grounded God’s sovereignty in God’s will (e.g., Augustine after 396, Bañez, and others) this assumption created philosophical and theological problems; namely, it eviscerated human freedom and responsibility and negatively altered the understanding of God’s wisdom, goodness, and justice. Wright overcomes this impasse by having the notion of the communal character of God’s end inform the notion of the infallibility of God’s governance. This allows for the frustration of God’s plan in individual instances without frustrating God’s ultimate purpose. It also opens up fruitful possibilities for understanding God providence in relationship to chance among human and nonhuman causes. See also Elizabeth Johnson’s work on chance and providence, which provides a helpful compliment to the possibilities opened up by Wright’s work: Elizabeth A. Johnson, “Does God Play Dice? Divine Providence and Chance,” *Theological Studies* 57 (1996) 3–18; Johnson, *Ask the Beasts*, 160–80. Fourth, Wright makes a crucial contribution to the understanding of primary and secondary causality. Aquinas set a wide metaphysical framework in his understanding of God as the primary cause that creates, sustains, and applies creatures to act according to their natures. Domingo Bañez (d. 1604) and Luis de Molina (d. 1600) tried to further explain how this was possible in reference to free creatures, and their fierce debate (the *de auxiliis* controversy) was never adequately resolved and prompted Jean Daniélou to regard the impasse as a sign that we are dealing with the mystery of God. See Jean Daniélou, *God and the Ways of Knowing*, trans. Walter Roberts (Cleveland, OH: World, 1957) 89. Wright argued that this impasse did not mean we had reached the limits of what could be said; rather, he argued that Molina and Bañez had posed a false problem. In contemporary philosophy of religion the terms of the Bañez and Molina controversy are still being debated, though in the key of analytical philosophy, and in the science and theology conversations John Polkinghorne and Arthur Peacocke argue that without a further explanation the notions of primary and secondary causation are mere assertions. See John Polkinghorne, “The Metaphysics of Divine Action,” in Robert John Russell, Nancey Murphy, and Arthur Peacocke, eds., *Chaos and Complexity: Scientific Perspectives on Divine Action* (Vatican Observatory, Vatican City Libreria Editrice Vaticana, 1997) 147–56 at 150. David Burrell has brilliantly argued for the distinction between the uncreated primary cause and the created secondary causes to overcome the tendency in modern thought to pit God’s freedom in opposition to human freedom in a “zero-sum game” and to show the incompatibility of the dominant possible worlds ontologies in analytical philosophy of religion, in which

and human freedom in accomplishing God's purpose in the world."⁸⁸ Wright discovers four themes that are crucial to a proper understanding of the eternal plan of providence: the omnipotence and infallibility of the divine government, the frustration of God's plan in the face of free human resistance, the adaptability that characterizes God's dealings with human beings, and the collective and communal quality of God's purpose and the means for attaining God's purpose.

Wright's analysis reveals how these themes appear over and over in all of the texts of Scripture from the earliest tradition of the Pentateuch through the New Testament. I will simply provide one example for each theme to help illustrate the meaning of the theme. The first theme of the omnipotence and infallibility of the divine government abounds in Scripture. For instance, First Isaiah (Isa 14:26–27) reveals that God will realize God's universal purpose: "This is the plan that is planned concerning the whole earth; . . . For the Lord of hosts has planned, and who will annul it? His hand is stretched out, and who will turn it back?"⁸⁹ The second theme of the frustration of God's plan in the face of free human resistance is illustrated in Luke 7:29–30: "But by refusing to be baptized by him [John], the Pharisees and the lawyers rejected God's purpose for themselves."⁹⁰ The third crucial theme for a proper understanding of divine providence is the adaptability that characterizes God's dealings with human beings.⁹¹ The Yahwist source in Genesis 3 "attempts to tell how human history became a history of sin,"⁹² but also "shows God's radical response of mercy to this sinfulness by situating the call of Abraham in Genesis 12 against the dark background of primeval wickedness, especially the universal pride of the story of the Tower of Babel."⁹³ The election of Israel can be understood as God's response to the plight of human beings.⁹⁴ The final biblical

God is conceived as a demiurge, with medieval Jewish, Christian, and Muslim understandings of God as Creator. Yet, Wright goes an important step further than Burrell in his understanding of the creature entering into the intentional structure of God's causative knowledge. This is a crucial insight that preserves the transcendence of God (primary cause) and the integrity of created activity (secondary causes). These insights of Wright as I have brought them to bear upon the question of the third part of this article allow us to understand God as the bringer of the kingdom of God without diminishing the reality and significance of human free choice. See David B. Burrell, CSC, *Knowing the Unknowable God* (Notre Dame, IN: University of Notre Dame, 1986); David B. Burrell, *Freedom and Creation in Three Traditions* (Notre Dame, IN: University of Notre Dame, 1993).

88. John H. Wright, *Divine Providence in the Bible: Meeting the Living and True God—Volume I: Old Testament* (New York: Paulist, 2009) 7 (hereafter cited as *Old Testament*).

89. *Ibid.* 73; Wright is quoting Isa 14:26–27.

90. John H. Wright, *Divine Providence in the Bible: Meeting the Living and True God—Volume II: New Testament* (New York: Paulist, 2010) 43.

91. John H. Wright, "The Eternal Plan of Divine Providence," *Theological Studies* 27 (1966) 27–57 at 34.

92. Wright, *Old Testament* 19.

93. *Ibid.*

94. See Wright, "Eternal Plan" 34, where he quotes from George Ernest Wright, *The Old Testament Against its Environment* (London: SCM, 1950) 53.

theme that will be particularly significant for a proper understanding of divine providence is the collective or communal quality “both in the end aimed at by God’s dominion of the world and in the means ordered to this end.”⁹⁵ It is not that God saves individuals and they make up the kingdom; rather, the kingdom is something that the faithful enter into (Matt 5:20; 7:21; 18:3; 19:23–24; Mark 9:47; 10:23–25; Luke 18:25; John 3:5) and has been prepared for them from the beginning (Matt 25:34). The kingdom is not “an inevitable but incidental consequence of having many individuals attain salvation”;⁹⁶ rather, “the constitution of the kingdom is primary; the individual by his fidelity to God’s call can guarantee his entrance into this kingdom.”⁹⁷ It is by being incorporated into the community of believers that “one gains fellowship with God and with God’s Son Jesus Christ.”⁹⁸

There is amidst these four themes an identifiable pattern of interaction between God and creation (a dialogue) that is repeated over and over in the whole Bible. This pattern of divine–human interaction is typified by three moments: (1) God’s absolute, free divine initiative in creation and redemption; (2) human beings’ free response, in obedience and faith or sin and unbelief; (3) God’s response to the human response, in a judgment of blessing or condemnation.⁹⁹

Constructing a Theology of Divine Providence

The perfect, supreme, and necessary divine self-communication is the self-communication in the inner life of God. It is of the very nature of God “to pour over into two supreme eternal acts of self-communication of the perfection of its nature, first from the Father to the Son, then from the Father and Son together to the Holy Spirit: the procession of the Son or Logos according to self-knowledge, and the procession of the Holy Spirit according to self-love.”¹⁰⁰ God in knowing God’s self and in rejoicing in God’s self knows God’s being, not only as God’s proper perfection, but as able to be shared with others. In God’s choice to share God’s perfection in a particular way the divine will is joined to the idea of a possible universe in the divine intellect and gives to this idea an inclination or order to an external effect.¹⁰¹ This intelligible order that

95. Wright, “Eternal Plan” 36.

96. Ibid. 37.

97. Ibid.

98. Ibid. 38; e.g. 1 John 1:3.

99. John H. Wright, “Divine Knowledge and Human Freedom: The God Who Dialogues,” *Theological Studies* 38 (1977) 450–77 at 450. See also Wright, *Old Testament* 18–19, 34–37.

100. W. Norris Clarke, “Action as the Self-Revelation of Being: A Central Theme in the Thought of St. Thomas,” in *Explorations in Metaphysics: Being–God–Person* (Notre Dame, IN: University of Notre Dame, 1994) 45–64 at 49.

101. The actual execution of this choice and the concomitant communication of existence are through the divine power. This ordered relation of the divine will to the divine intellect that determines the divine power to a definite effect is the structure of God’s causative knowledge.

eternally exists in the divine intellect that the divine will has freely chosen is what we mean by the eternal plan of providence. The three aspects of the eternal plan of providence distinguish God's knowledge and determination of all that will be possible in this universe (antecedent plan) from God's causative knowledge of those possibilities that will actually be realized in this universe (consequent plan) as conditioned by the choices of free creatures and God's response to those choices as God realizes God's purpose of a society of the blessed united with God in vision, love, and joy concomitant with the transformation of the created world such that God will be all in all (divine purpose).

Divine Purpose. The divine purpose concerns the ultimate purpose, or end, of God's creative and redemptive activity. The purpose or final cause of God's creative and redemptive activity is union with God in the kingdom of God and the proleptic final cause is the self-communication of God in the missions of the Son and the Spirit. The divine purpose cannot be spoken of as if God takes a risk in creating and that God's ultimate purpose could finally be frustrated. The scriptural insistence upon the omnipotence and infallibility of the divine government are grounded in the purpose that God intends to realize in the created order and in God's exhaustive knowledge of the means (which is the antecedent/consequent plan of providence) for achieving that purpose. The divine purpose does not determine antecedently the precise number of individuals in the kingdom of God, but simply that such a society will exist.

Antecedent Plan of Providence. To hold onto the sovereignty of God we must maintain that all the power, perfection, and goodness of the creature are a gift from God. Thus the creature adds no new perfection to God. God then is neither dependent upon the creature for God's knowledge of what is possible in the created universe, nor for God's knowledge of those possibilities that actually come into being in the universe. Antecedent to the free choices of creatures (antecedent plan), God exhaustively knows and even makes possible all the possible courses of action open to God's creatures. God also knows how the creature's choices, no matter what they may be, can fit into the establishment of God's kingdom. God knows infallibly that God's purpose of a society of the blessed united to God will be realized because God knows that God's response and the light of God's grace will be infallibly effective in the group as a whole (there will be a community of the blessed), even though some individuals can choose to finally and definitely refuse God's universal invitation to eternal life.

Wright provides an analogy from the natural order, "which the supernatural order resembles and perfects,"¹⁰² to illuminate the idea that there is an

102. Wright, "Eternal Plan" 45.

intelligibility in the group that is “not found in individuals isolated from one another and merely added together.”¹⁰³ Excluding some unforeseen cataclysm that would destroy the world, we know with certitude that human beings will be in existence two hundred years from now. We know this “because we know that the means for guaranteeing the continued existence of the race are infallibly effective in the group, even though they may not be in each individual case.”¹⁰⁴ Even though many people will choose not to have children, there is not the slightest possibility that all people will choose not to have children because the instincts of “sex, self-preservation, and parental care are so strong in human nature.”¹⁰⁵ The intelligibility found in the whole group “is founded on the nature of human liberty as something not absolutely unconditioned and upon the forces acting everywhere to condition the exercise of this liberty.”¹⁰⁶ Analogously God infallibly knows that while God’s offer of salvation may be refused in individual instances, the light and attraction of God’s grace offered to created persons in their freedom will be infallibly effective in the group as a whole. Hence, God knows antecedent to any created act of free choice that God’s purpose of the realization of the kingdom of God will be infallibly effective.

Consequent Plan of Providence. The consequent plan is those possibilities of the antecedent plan that God actually realizes that correspond to the choices of free creatures and God’s response to those choices as God realizes God’s purpose. God cannot be understood as learning from creatures. Thus God’s knowledge cannot be passive and caused; rather, it must be active and causative. To hold onto human free choice God’s causative knowledge cannot stem from God’s will alone: rather, we must understand God’s causative knowledge in terms of an ordered relation of the divine will to the divine intellect that determines the divine power to a definite effect.

God in knowing God’s self knows the possible world orders that God can bring into existence. In creation the divine will regards only and immediately the possible world orders (as manifested by the divine intellect contemplating God’s being) that the divine will can choose to bring into existence. In the choice to create our universe, the divine will is joined to the idea of this particular world order in the divine intellect and the divine power communicates existence to this idea and the created universe is brought into being. Unlike creation, conservation is not an absolute beginning; rather, God continues to communicate being to existing creatures. Since the creature already exists, in conservation “the creature is truly and ontologically an object of God’s will, not as an end but as ordered or directed to the end, which is the divine goodness itself.”¹⁰⁷ In truly regarding the existing creature, God allows the

103. Ibid. 46.

104. Ibid. 45.

105. Ibid.

106. Ibid. 46.

107. Wright, “Divine Knowledge and Human Freedom” 464.

creature to become the intentional medium that specifies the particular good chosen (among all the possible goods) by the divine will. The union of the divine will with the divine intellect is *through* the creature such that the creature enters into the intentional structure “through which God causes and knows its continued existence.”¹⁰⁸ To illuminate this key insight, let us take the example of God sustaining a polar bear in existence. God in knowing God’s self knows the possible ways God’s goodness can be communicated, including bears with only brown fur. In truly regarding the polar bear, however, the divine will does not choose to communicate the possible good of brown fur, but chooses to communicate the possible good of white fur. The possible good to be communicated is specified by the already existing polar bear such that the intentional union of the divine will and the divine intellect through the polar bear.

This insight that creatures enter into the intentional structure through which God knows and causes their existence in sustaining them in being (conservation) also applies to God moving them to act according to their natures (government), including rational creatures with their power to choose freely. Indeed, it is the key insight that allows us to hold onto human free choice and responsibility while maintaining that God is the cause of our actions. The following elements involved in human free choice are presented in a natural order of priority, although they are temporally simultaneous in the one existential event of created free choice. First, God conserves the free creature’s being and power of acting. Second, the created spirit in receiving existence from God is actualized toward the Infinite Good according to its nature as an embodied spirit. This permanent actualization toward the

Infinite Good, which contains in supereminent plenitude all the goodness of any good that we could desire, . . . contains virtually already within its power all particular acts of willing toward finite goods; for these add nothing higher to this primal actualization of our willing power which is always going on; they add only new limited participations or expressions of this primal transcendent fullness of willing the Good in itself, the Good of all goods.¹⁰⁹

Third, the free creature chooses. This choice adds nothing higher to the primal actualization of the creature’s willing power that is always going on,¹¹⁰ “but only the ordering of the perfection already possessed to communication.”¹¹¹ As such, the creature’s choice “requires no new causal influx of God in addition to that whereby He conserves

108. Ibid. 465.

109. Norris Clarke, “Freedom as Value,” in *Freedom and Value*, ed. Robert O. Johann (New York: Fordham University, 1976) 14.

110. This is a paraphrase of Clarke, “Freedom as Value” 1–19 at 14.

111. Wright, “Divine Knowledge and Human Freedom” 471. Creation, conservation, and government are not new and different actions of God but different modes of God’s communication of existence to the creature. Creatures are brought into being (creation), receive and continue to exercise their own existence (conservation), and communicate the perfection they are receiving (government). See also 467.

the creature in being and applies it to act without determining its power of action to one.”¹¹² Fourth, the choice the divine will makes between all the possible ways that the divine goodness can be communicated is specified by the created will moving itself (under the influence of the divine will) to one act. Fifth, “the causality of God, the divine power, is actually extended to this free act whose specification is from the creature.”¹¹³ God knows and causes the creature’s free choice. Finally, “the existence of the free act is received in the creature from God; for what is proper to the first cause is the last thing to be realized in the effect.”¹¹⁴ Divine causality and human free choice are not opposed to each other; rather, it is God’s non-determining causal action that is the condition of the possibility of the creature’s free choice.

In my earlier example of the polar bear, I focused on one characteristic of the polar bear (its white fur) as an aid to grasping the central insight that the creature enters in the intentional structure of God’s causative knowledge. This feature and all the features of the polar bear, however, do not exist in isolation; rather, they emerged as adaptations to its environment. All created things are interdependent. Thus if we widen our field of vision we can see that all creatures in every aspect of their being and nature, and as related to each other in the system of the universe down to the smallest particle, in being truly regarded by the divine will, specify the possible goods to be communicated by the divine power. Consequently, actions of other creatures can limit the possible goods that can be communicated to a particular creature like the polar bear. The ongoing collapse of sea ice as a result of human choices to continue to burn fossil fuels and fell forests, despite National Academy of Sciences warnings dating to 1957, has made the polar bear an endangered species while threatening to cause a sixth great mass extinction. If the human community continues down this path, which involves rejecting the divine influence toward truth and goodness, continues, then God in truly regarding this world as an interdependent system of beings will not communicate existence to the polar bear or to millions of other species.

The consequent plan is that aspect of the antecedent plan that God actually executes in view of human free choices. It not only encompasses the free human response to the divine initiative, but also the divine response to the human response. In every free choice the free creature is either accepting the influence of God in her life and thus is cooperating with the divine purpose, or the creature is obstructing or denying the influence of God in her life and is more or less departing from the divine purpose. When the free creature withdraws from the divine influence in her life, God in truly regarding the creature gives being (consequent plan) to the evil choice of the creature. No matter what the choice of the creature, God, in responding to the choice, orders it toward God’s purpose. This ordering is God’s judgment. As an ordering toward the fulfillment of God’s purpose, it is not simply a judgment on what the creature has

112. *Ibid.* 471. God’s applying a creature to act simply means that God moves a creature to act according to its nature.

113. *Ibid.* 472.

114. *Ibid.* 472.

done, but it is also an invitation to the creature to participate more fully in God's life through a call to repentance and further growth in the life of the Spirit. This judgment on every creaturely response to the divine initiative is the continuous judgment, whose full meaning is only revealed in the particular judgment upon the individual at her death and the general judgment of God upon all created things in the consummation of the universe.

In light of the argument that God causes the free choice of the creature, while ordering that choice towards God's purpose through God's judgment, let me indicate how this theology responds to the central question of this section: How do we hold together the reality and eternal significance of our choices (our deep responsibility), yet hold that God is the bringer of the kingdom of God? In this theology, God is the source of all possibility and actuality in the universe. God cannot be understood as learning from creatures. Thus God's knowledge of what is possible and what is actual is not passive; rather, it is active and causative. All the goodness and rightness of the creature who accepts God's influence comes from God as pure gift. Creatures, including free creatures, give God nothing. In acting according to God's salvific intention "the creature at no point makes a self-originated positive contribution to the goodness found in itself or the universe."¹¹⁵ The free creature in accepting the divine influence in her action is acting freely; for she could resist the divine motion to act according to God's salvific intention that she is in fact accepting. On the other hand, what the free creature can truly regard as her own is her resisting of God's salvific influence, her sin. When free creatures fall away from God's purpose, God orders (God's judgment) the human choice toward the fulfillment of God's purposes; namely, the realization of the kingdom of God

In freely accepting the divine influence the creature can choose among possible goods. I can choose to live out my Christian vocation in consecrated celibacy or I can choose to live it out in marriage. In my choice, while I do not make a "self-originated positive contribution to the goodness found in myself or the universe" (for all the goodness comes from God), I do specify some of the goods that God brings into existence and as such while I do not "bring the kingdom" or "build it up"¹¹⁶ I am different because of my choices and the character of the kingdom is different because of my choices. This is true from the way my choices make me who I am and condition the freedom of others, and even more obviously, in the case of my children, specify the conditions for their very existence. When I sin, God's forgiving judgment will move me to repentance and the subsequent habitual acceptance of the divine influence will allow that sin to be understood in a new context. Though I will always be the one who committed this sin, should I persevere, under the divine influence, in habitually accepting the divine influence, that sin will not be the last word; it will be provisional and understood in a new light. If we return to the resurrected Jesus as the analog for this, the resurrected Jesus carries the wounds from the social sin of his time. We too presumably will carry those wounds and others will carry the wounds we inflict upon

115. Wright, "Eternal Plan" 54.

116. Harrington, "Kingdom of God" 512.

them. These wounds, however, will not be the last word in the kingdom of God for the resurrected Jesus brings forgiveness (Luke 24:47), peace (Luke 24:36; John 20:19, 21, 26), joy (Luke 24:41, 52), and abundance of life (John 21:6).

The ground for Christian hope is in God as the bringer of the kingdom, which has already begun with the life, death, and resurrection of Jesus Christ. The hope is that what was begun in Christ will ultimately be realized. The ultimate realization of the kingdom is grounded in the biblical theme of the omnipotence and infallibility of the divine government (i.e. God's sovereignty). The ultimate context for God's sovereignty is "love that is guided by wisdom and executed by power."¹¹⁷ While God's will or God's love is guided by what is truly possible, which is manifested by the divine intellect contemplating the divine goodness, "the actual guidance of wisdom which is manifested in the world is that which divine love has chosen."¹¹⁸ The theology of divine providence sketched here shows how it is possible for God's kingdom to be realized even though human beings can frustrate God's salvific intentions in individual instances. In addition, it holds together the reality and eternal significance of our choices (our deep responsibility) with God as the bringer of the kingdom.

Conclusion

The constriction of our social imagination to the short term has kept us from coming to grips with and taking responsibility for the fact that we are setting in motion climate change-induced impacts that could cause a mass extinction event that would haunt humanity for millions of years. While *Laudato Si'* refers to the future multiple times it does not provide a sufficiently descriptive account of the future to counteract the cultural focus on the short term. I have brought together the doctrines of creation, incarnation, eschatology, and providence to mutually inform each other in order to respond to five factors that inhibit our capacity to imagine and take responsibility for the deep future.

Christian hope is grounded in the faith that Jesus inaugurated the reign and kingdom of God which is now unfolding through God's sovereign providence and will be realized in the eschaton. It is this hope in the coming kingdom that could allow people to face the deep future instead of recoiling into the present to escape the fear of a future suffused with their death and absence (i.e. the first inhibiting factor). The theology of providence sketched above shows the coherence of our hope by indicating how it is possible for God to realize the kingdom even though God's will can be frustrated by free human resistance in individual instances. This theology of providence also illustrates how we enter into God's eternal plan of providence and how, though we do not bring the kingdom of God, we participate in specifying the character of the kingdom. It holds onto the sovereignty of God while preserving the integrity of created natures and thus serves as a correction to Christian understandings that diminish human responsibility by stressing God's sovereignty over against human free choice (i.e. fifth inhibiting factor).

117. Wright, "God," in *New Dictionary of Theology*, 423-36 at 432. See also *Old Testament* 8.

118. *Ibid.* 432.

The deep future not only confronts us with our death, but the sciences also reveal the possibility and likelihood in the future of great catastrophic changes for the human community from natural forces. Since the Earth of the deep future appears so alien to us it is difficult to imagine our place in (i.e. second inhibiting factor) and responsibility for it (i.e. third inhibiting factor). If the purpose of God creating is to give God's self (the intrinsic teleological connection between creation, incarnation, and the eschaton) and we enter into the eternal plan of providence, then this apparently alien earth of the deep future can be understood, in the context of faith, as our common home.

If the purpose of God creating is to give God's self, then part of our participation in specifying the character of the kingdom includes the great responsibility of being stewards into the deep future of the created world in such a way that we contribute to the flourishing of the natural world not only as a good in itself but also as oriented toward God communicating God's self to created spirits. Thus we are not simply caring for creation because of its intrinsic goodness, but also because creation is oriented toward the higher good of God's self-communication. Since at least the industrial revolution the developed world's role in sustaining and supporting nonhuman forms of life in terms of their own intrinsic value and as the life support system for the human community has been decidedly negative. Yet our capacities can be used to support ecosystems and human flourishing and forestall the future catastrophic effects brought out by natural forces.¹¹⁹ When we recognize that we enter into the eternal plan of God's providence, then we can understand intergenerational justice in terms of responding to God's call to act according to the hoped for kingdom of God. This means acting to create conditions for universal peace, justice, and flourishing into the future into which individual people are born, rather than a notion of future justice in which particular individuals in the future can look back and make claims against us regarding the justice of our actions (i.e. the non-identity problem as the fourth inhibiting factor).

When the teleological connection between the doctrines of creation, incarnation, and eschatology is made we can allow what we have learned about creation through the sciences to inform the not-yet character of the coming kingdom of God. This opens up the possibility of the Christian extending her imagination into the deep future. It is when theological reflection, in dialogue and integration with the sciences, becomes a means for opening up our imaginations to our effects in the deep future that we can grasp the decisive moment (*kairos*) for responding to God's call in reference to the least (Matt 25:31–46), most especially future generations—possibly 160,000 of them.

119. For instance, we can produce potent greenhouse gases that can put an end to ice ages on this planet. We might also be able to reduce future asteroid impacts by steering asteroids away from the earth. Even though satellite monitoring could possibly allow for evacuations mitigating the immediate impacts from a super-volcano eruption, we might still face mass death, though probably not mass extinction, from the climactic after effects of such an eruption.

Author biography

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