

regard for evidence. The intelligent design community rightly objects to times when their ideas have been dismissed without a fair hearing. But it just doesn't follow from such incidents that all of us Christians who accept evolution do so for any reason other than having been persuaded by the evidence.

To support the idea that our emphasis on theistic evolution is a presupposition, Touryan also writes about the "failure" of origins research—and hints strongly that a more-balanced view would embrace the option of intelligent design. Here we must politely but clearly disagree. In words that one of us has written before on the topic:

It is true that, at present, evolutionary science does not have a clear, detailed, and well-accepted explanation for how the central dogma of molecular biology emerged. But does that mean it is time to embrace ID as a better approach? By analogy, current medical science has not found the cure for cancer. Taken in isolation, this sound bite could lead to the misleading view that existing research directions, developed for decades, are best written off as a failure. This would miss an important context. Many aspects of cancer are now being treated with far greater effectiveness than ever before as a result of ongoing research. However, these cures are not robust (all-encompassing) enough to be summarized in the statement, "we have found the cure for cancer." This status is typical of big questions within science: failure to reach the sound-bite goal should not be mistaken for evidence that the research program has failed.⁵

Notes

- ¹John Maynard Smith and Eörs Szathmáry, *The Major Transitions in Evolution* (New York: Oxford University Press, 1995).
- ²Kevin De Queiroz, "Species Concepts and Species Delimitation," *Systematic Biology* 56, no. 6 (2007): 879–86.
- ³O. G. Woodberry, K. B. Korb, and A. E. Nicholson, "Testing Punctuated Equilibrium Theory Using Evolutionary Activity Statistics," in *Artificial Life: Borrowing from Biology*, ed. Kevin Korb, Marcus Randall, and Tim Hendtlass (Heidelberg, Germany: Springer-Verlag, 2009), 86–95, https://doi.org/10.1007/978-3-642-10427-5_9; and Albert Somit and Steven A. Peterson, eds., *The Dynamics of Evolution: The Punctuated Equilibrium Debate in the Natural and Social Sciences* (Ithaca, NY: Cornell University Press, 1992).
- ⁴Kjetil Lysne Voje, Emanuela Di Martino, and Arthur Porto, "Revisiting a Landmark Study System: No Evidence for a Punctuated Mode of Evolution in *Metarrabdotos*," *The American Naturalist* 195, no. 5 (2020): 899–917.
- ⁵Stephen Freeland, "The Evolutionary Origins of Genetic Information," *Perspectives on Science and Christian Faith* 63, no. 4 (2011): 240–47.

Emily Boring, J. B. Stump, and Stephen Freeland

On Galileo and Global Warming

I look forward to perusing *PSCF* for new insights to encourage my faith and worship, and so I was shocked by the lead article "Galileo and Global Warming: Parallels between the Geocentrism Debate and Current Evangelical Skepticism about Anthropogenic Climate Change" by Rachel M. Roller and Louise Ko Huang (*PSCF* 72, no. 1 [2020]: 3–14) in the March issue. From the title and first sentence onward, the young authors prejudice their audience against scientists who disagree with their views on climate change. Evangelical Christians in America are free and diverse in beliefs and denominations. Comparing them to the autocratic, political medieval Roman Catholic Church is unreasonable. They introduce unnecessary prejudice into the discussion by likening critical analysis of causes of climate change to the persecution of Galileo.

Claiming "mounting scientific evidence that human activity is negatively impacting the planet" (p. 3), Roller and Huang present unsubstantiated claims of authority and consensus for their diagnosis of a human cause for global warming. A good source to document the lack of consensus and understand the manipulated and sometimes falsified CO₂ and temperature analysis is *Inconvenient Facts: The Science That Al Gore Doesn't Want You to Know* by Gregory Wrightstone (<https://inconvenientfacts.xyz/>, 2017). Aside from that, the big picture is what geologists never forget: The earth has experienced many cooling/warming cycles over geologic history, also many highstand/lowstand cycles of oceans. In historic time, we are emerging from the Little Ice Age.

Accusations fly: evangelicals accused of not caring for the environment, "behaving like the two men who refused to look through Galileo's telescope" (p. 9), lacking humility, and being driven by political views. Who is responsible for politicizing environmental science and the investigation of climate change? Could this not also be attributed to liberal parties and organizations, instead of blaming it on the conservative leanings of evangelicals? Augustine's maxim of Christian love should have been applied here.

Thank you.

Catherine Lewis
PhD Geophysics

"Galileo and Global Warming" Authors Respond

We would like to thank Catherine Lewis for her comments. One of our primary goals was to spark dialogue between people of faith on the topic of creation care, so we were encouraged that Catherine took the time to read and respond to our article, "Galileo and Global Warming."

Her critique boils down to four main concerns: (1) it is unfair to compare modern American evangelicals to the Roman Catholic Church of Galileo's day, (2) it is inaccurate to claim scientific consensus on the anthropogenic roots of climate change when alternative explanations based on natural cycles exist, (3) it is unbalanced to call out the conservative leanings of evangelicals without acknowledging the liberal parties and organizations politicizing environmental science, and (4) it is unloving to accuse evangelicals.

As to the first concern, Dr. Lewis points out that "Evangelical Christians in America are free and diverse in beliefs and denominations," and thus it is "unreasonable" to compare them to the Catholic Church in Galileo's time. We had no intention of denying the diversity of the evangelical community—as we acknowledge on the first page of our article, "evangelicals are a wide and varied group, so it would be unfair and inaccurate to imply that this trend [lack of environmental concern] applies to every evangelical" (p. 3). Moreover, we make no pretense of claiming that modern evangelicals are like the seventeenth-century Roman Catholic Church in every respect—in fact, we highlight several points at which they differ. Instead, our goal was to discuss three specific parallels (perceived lack of evidence, biblical literalism, and political complications) in an attempt to learn from the past.

Dr. Lewis's second concern is that we "present unsubstantiated claims of authority and consensus" for anthropogenic climate change, given the "big picture" of "cooling/warming cycles over geologic history." This is an excellent point—in rereading our article, we realized that we neglected to support our claim of "strong, even overwhelming, scientific consensus" (p. 4) by citing studies placing the percentage of scientists who subscribe to the idea of anthropogenic climate change around 97%.¹ This was a sincere oversight on our part, as we did our best to scrupulously cite any scientific, historical, and sociological claims that we made. As to Dr. Lewis's point that the earth has natural cooling and warming cycles, we fully agree. We do not deny the fact that the earth cools and warms of its own accord, yet based on current research findings, the effect of human-caused greenhouse gas emissions goes above and beyond natural cycles.

Third, Dr. Lewis asserts that we unfairly accuse conservative evangelicals of "being driven by political views" while ignoring the way "liberal parties and organizations" politicize environmental issues. Seemingly, people of all parties could politicize science. The reason why our article focuses on the conservative end of the spectrum is due to the results of multiple research findings.² Nonetheless, we fully agree with the spirit of Dr. Lewis's concern—as we point out in the article, environmental science (and science in general) should be considered on its own merit rather than bound to either end of the political spectrum.

Dr. Lewis's fourth concern is the most serious—that we violate Saint Augustine's "maxim of Christian love" by "blaming" evangelicals with "unnecessary prejudice" and "accusations." Given that our goal was to encourage a "hermeneutic of charity" (p. 9), this comment was deeply saddening. Both of the authors count ourselves part of the evangelical Christian community, and one of us was a climate change skeptic until very recently, so we had no intention of leveling accusations at our brothers and sisters in Christ. Given the highly divisive nature of the topic, we strove to write every word as sensitively as possible, "speaking the truth in love" (Eph. 4:15), as we attempted to engage in civil dialogue.

Dr. Lewis suggested we look into *Inconvenient Facts* by Gregory Wrightstone. After reviewing this resource, we found it can be helpful, although its contents fall outside the framework of our article. Our article is not an attempt to prove global warming, but rather a parallelism study regarding the tensions between science and faith during Galileo's and current times.

The increased engagement of more people of faith is beneficial to developing a holistic approach to the stewardship of God's creation. After all, isn't caring for God's creation a mandate for all his people regardless of political affiliations and definition of climate change? Additional research (natural/social sciences, theology, and others) is needed to understand the complexity of this issue. We are grateful to *PSCF* and the ASA for providing platforms to promote enriching dialogue.

Notes

¹John Cook et al., "Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming," *Environmental Research Letters* 11, no. 4 (2016), <https://iopscience.iop.org/article/10.1088/1748-9326/11/4/048002>; NASA: Global Climate Change, "Scientific Consensus: Earth's Climate Is Warming," updated June 11, 2020, assessed June 16, 2020, <https://climate.nasa.gov/scientific-consensus/>.

²Philip Schwadel and Erik Johnson, "The Religious and Political Origins of Evangelical Protestants' Opposition to Environmental Spending," *Journal for the Scientific Study of Religion* 56, no. 1 (2017): 179–98, <https://doi.org/10.1111/jssr.12322>; David M. Konisky, "The Greening of Christianity? A Study of Environmental Attitudes over Time," *Environmental Politics* 27, no. 2 (2018): 267–91, <https://doi.org/10.1080/09644016.2017.1416903>; A. Leiserowitz et al., *Climate Change in the American Christian Mind: March 2015*, Yale Project on Climate Change Communication (New Haven, CT: Yale University and George Mason University), 4–25, <https://environment.yale.edu/climate-communication-OFF/files/Global-Warming-Religion-March-2015.pdf>; and Nicholas Smith and Anthony Leiserowitz, "American Evangelicals and Global Warming," *Global Environmental Change* 23, no. 5 (2013): 1009–17, <https://doi.org/10.1016/j.gloenvcha.2013.04.001>.

Respectfully,

Rachel M. Roller and Louise Ko Huang

