The year after former US Vice President and climate activist Al Gore's *An Inconvenient Truth* made its film debut, I started a graduate internship and then accepted an advocacy position with the Illinois Chapter of the Sierra Club. The Club was abuzz with activity and many staffers celebrating the “game changing” nature of the film and its effect upon public awareness about climate change. The film’s persuasive graphs, charts, and storytelling, its two Academy Awards, and Gore’s subsequent sharing of the 2007 Nobel Peace Prize with the Intergovernmental Panel on Climate Change for “informing the world of the dangers posed by climate change” all appeared to invigorate the environmental movement in a way that many activists thought would lead to significant structural change.

The empirical sciences, research, and rational thought appeared to be gaining a strong foothold on the hearts and minds of US voters. Progress, however, toward greater climate awareness along with the popular will to take the steps necessary to mitigate the climate problem was short-lived. Climate awareness ceded ground to the claims and arguments of climate deniers. Gore’s graphs and charts were soon all but forgotten. While they were well intentioned and momentous for the movement, the environmental community had missed a great opportunity to address the root causes of the climate crisis and direct the movement toward a conversation that could sustain enduring public interest. Years earlier, Gore himself had reflected that “the more deeply I search for the roots of the global environmental crisis, the more I am convinced that it is an outer manifestation of an inner crisis that is, for lack of a better word, spiritual.”

The lesson to be learned is that pummeling people with facts and figures does not necessarily a climate ally make. Deeper connections and a different language are more effective. Larry L. Rasmussen, interpreting Gore’s emphasis on the spiritual roots of the environmental crisis, notes:

> The spiritual crisis rests in the alienated way in which we conceive ourselves apart from nature. [Gore says,] “We have misunderstood who we are, how we relate to our place within creation, and why our

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very existence assigns us a duty of moral alertness to the consequences of what we do.” Gore ends his book with his own statement of Christian faith as the reason for the hope that is in him and as the ultimate beliefs that buoy up his own part in the collective action “to change the very foundation of our civilization.” “Faith,” he writes, “is the primary force that enables us to choose meaning and direction and then hold to it despite all the buffeting chaos in life.” In brief, Gore seems to mean by “spiritual” what others mean by “worldview,” “cosmology,” and “ethics”: namely, “the collection of values and assumptions that determine our basic understanding of how we fit into the universe.”

Rasmussen and Gore are both correct in realizing that sound science and scientific awareness are not enough to create the kind of paradigm shift that challenges like climate change and the ecological crisis require of the world’s people. While sound science is necessary and scientific awareness is helpful, any success in affecting collective human consciousness and behavior must also engage the deeply held values and beliefs that both interpret and filter our perceptions as well as lead to and inspire direct action.

In light of new data presented in the Fifth Assessment Report (AR5) issued by the Intergovernmental Panel on Climate Change (IPCC), which emphasizes the increasingly important and urgent need for a global response to the ecological and climate crisis, what role can Christian ethics, religious leaders, and people of faith play in responding to the climate challenge? While understanding scientific data on climate change is incredibly important for correctly interpreting the “signs of the times,” most people in the pews approach everyday life in terms of their deeply held values and beliefs—the stories that orient and guide human decision-making. The following sections note both the value and limits of scientific literacy while highlighting the importance of narratives, worldviews, and religion in motivating communities to take action on climate change.

Scientific Literacy and Climate Concern (or Lack Thereof)

For those who do not envision a role in the climate debate for Christian ethics and religious leaders, the underlying assumption is often that climate change is simply a matter of scientific illiteracy. As such, the solution to the climate crisis is perceived to be greater scientific literacy among a public who, with a better understanding of the issue, would work for political and technical fixes to the problem. In fact, I am often reminded by some of my colleagues of the counterproductive role some Christian communities have played in climate mitigation negotiations in the United States. The involvement of religious leaders in the “greening” of religious thinking and congregational

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6 One study suggests that self-identified Christians report lower levels of environmental concern than do non-Christians. See John M. Clements, Aaron M. McCright, and Chenyang Xiao, “Green Christians? An Empirical Examination of Environmental Concern within the US General Public,” Organization & Environment (July 14, 2013), 1-18. As an example of the intense skepticism regarding Christianity’s positive contributions to the ecological crisis, Dr. Bron Taylor (Founder of the International Society for the Study of Religion, Nature and Culture, ISSRNC, influential and well published Professor of Religion and Nature) posted an online article on the ISSRNC’s Facebook Page referencing Clements et. al’s findings and alleging it is “[m] ore evidence that runs against the ‘greening of Christianity’ case.” For both, see Roberta Kwok, “Greening of Christianity? Not Yet,” Conservation This Week: The Source for Environmental Intelligence, July 26, 2013; Bron Raymond Taylor, “Facebook [Group],” posted July 31, 2013, https://www.facebook.com/groups/ISSRNC.
buildings and operations is all well and good, but the really heavy lifting is about improving scientific literacy among the public, or so goes the conventional wisdom among many liberal environmental groups.7

While scientific literacy among the general US public is not up to a level where many think it should be, admittedely contributing to greater confusion around the climate debate and other politicized scientific issues, improving scientific literacy among the general public appears not to be the panacea many believe it to be. Emerging data suggests it is a mistaken notion that better scientific literacy necessarily increases public concern for climate risks. Some of the best science of the day is beginning to suggest that the way issues are framed, the narratives and world-views in which they fit, are a much more effective way to increase public concern for climate risks since they are inherently more successful in shaping the way individuals and communities make decisions on issues.

The relationship between climate scientists and religious leaders is unnecessarily confrontational in tone and not nearly collaborative enough for significant progress to be made with regard to increasing public concern for climate action. A lack of concern for climate change or even acceptance of its existence is more a failure to see one-self and one's world in a certain way than it is a lack of scientific literacy.8 Scientific literacy is important and the empirical sciences are an important part of an ecologically informed, contemporary western worldview. Scientific knowledge informs my own worldview as a Christian ethicist. Science alone, however, is not generating the kind of knowledge that moves the general public to take action on important environmental problems because it is not easily integrated into the sacred stories and cosmic narratives that operate on both the conscious and subconscious emotional levels.

Contemporary social science research increasingly affirms the influential role of moral authorities like clergy and other spiritual and religious leaders who profess to operate on the level of the spiritual and ethical—those who work on and in the language of values and beliefs. A popular article written by Chris Mooney and published in Mother Jones summarizes some of the emerging research that describes how US conservatives skeptical of climate science "are more likely to embrace climate science if it comes from a religious or business leader, who can set the issue in a context of values that differ from those of an environmentalist." Mooney’s article was reprinted and passed around climate advocacy circles for the creative way in which it dips into social science research to explain the dissonance between US conservative voters, climate scientists, and each of their political advocates.

The popular nature of Mooney’s article, and the significance of the research to which it points, warrants a closer look at its claims, given my central argument that Christian ethicists ought to play a more active, more influential, and less cursory role in solving the climate and ecological challenge. The environmental community has experienced stifled political progress toward climate solutions at least in part because it does not adequately communicate the causes and consequences of climate change in a way that resonates with those deeply held values and beliefs central to many people's core identities. Outreach and messaging tend to focus primarily on improving scientific literacy and confronting denial head-on among the unconverted rather than on telling moving stories or making tailored moral appeals so that each group is approached with methods and arguments appealing to that

group's particular worldview. Directly emphasizing the scientific reality of climate change to deniers is simply not as effective as working through the sacred stories and religious narratives—the worldview-level of ideas—that shape fundamental beliefs about who we are and what kind of people we think we ought to be in the world.

Dan M. Kahan, along with several of his distinguished colleagues, has spearheaded much of the research demonstrating the superior effectiveness of religious authorities over scientific authority on the topic of climate change. His research demonstrates that:

Members of the public with the highest degrees of science literacy and technical reasoning capacity were not the most concerned about climate change. Rather, they were the ones among whom cultural polarization was greatest. This result suggests that public divisions over climate change stem not from the public’s in comprehension of science but from a distinctive conflict of interest.

These rather surprising findings confirm that science literacy, or a lack of it, is not the primary distinguishing factor as to whether or not individuals are likely to accept or deny the reality of climate change. Rather, “cultural world-views explain more variance than science literacy.” The scientific community and environmental advocates can confront climate deniers head-on and dispense all the scientific knowledge they can muster, but the simple reality is that they are unlikely to change very many minds.

This does not mean that media distortion, in which climate change is often addressed in public discourse or through biased media, is irrelevant. The era of the 24-hour news cycle has arrived and several news networks include entertaining, lively debates as a part of their allegedly fair and balanced coverage of controversial issues. Sometimes the networks serve one entrenched special interest or another by intentionally skewing these debates with the questions that are asked or by whom they choose to include in the debates. At other times the issue is unintentionally distorted when well meaning journalists give undue attention to climate deniers by allowing such a small number of people holding a given perspective to be equally represented in a debate—an overwhelming 97-98 percent of climate scientists agree on the anthropogenic aspect of climate change instead of denying it. By presenting the issue as though experts in the field give equal credence to each perspective when those perspectives do not in fact hold equal weight, the media does the public an incredible disservice.

Still, a media correction will probably not entirely resolve the problem because even deeper issues are at play. As Kahan’s research shows, all of that scientific information is filtered through the lens of a worldview that is either receptive to it or not. In fact, the more scientific knowledge an individual has, the more likely that individual is to use that knowledge to affirm preexisting values and beliefs. Kahan concludes:

"Our findings could be viewed as evidence of how remarkably well-equipped ordinary individuals are to discern which stances towards scientific information secure their personal interests...the reward for acquiring greater scientific knowledge and more reliable technical-reasoning capacities is a greater facility to discover and use—or explain away—evidence relating to their groups' positions...simply

11 Paul G. Bain et al., “Promoting Pro-Environmental Action in Climate Change Deniers,” *Nature Climate Change* 2, no. 8 (August 2012), 600-603.
improving the clarity of scientific information will not dispel public conflict so long as the climate-change debate continues to feature cultural meanings that divide citizens of opposing world-views.\textsuperscript{16}

If climate scientists and activists wish to see a change in direction down the path we presently travel, then they will need to draw upon the tremendous creative potential of those other experts who are more fluent in the language of deeply held values and beliefs.

\textbf{Narrative, Worldviews, and the Function of Religion}

It is for the reasons noted in the previous section that I think Christian ethicists and religious leaders can play an important role as educators about the climate and ecological crisis. They deal in the language of deeply held values and beliefs, of narrative and of stories with deep cultural meanings—the language of worldviews. As Stanley Hauerwas describes it, Christian faith communities are “story-formed communities.”\textsuperscript{17} Their religious leaders help people to think through the conscious and subconscious aspects of their worldview and can help the community make sense of a world in which new scientific knowledge may seem to contradict preexisting values.

As Kahan and others indicate, and as I have argued in this article, the climate crisis is, among other things, a worldviews issue. It is also a moral problem and a justice issue. Since our worldviews shape our understandings of justice and morality, the climate crisis cannot be resolved unless it is engaged on such a level. The problem emerges from and resides in the territory of deeply held values and beliefs about who we think we are as people and how we understand our relationship with the world. We need to know what story we are in and how we fit into that story, and scientific literacy alone does not really help most people to do that adequately. Sacred stories and religious narratives help billions of people around the world to orient themselves and make sense of their world.

In other words, religion acts powerfully and influentially upon people's emotions and motives, and so it ought to be engaged in response to the climate and ecological crisis. Clifford J. Geertz is remembered as one of the most prominent US cultural anthropologists since his death in 2006.\textsuperscript{18} His work highlights the role of symbols in constructing public meaning, and he defines “religion” as:

(1) a system of symbols which acts to (2) establish powerful, pervasive, and long-lasting moods and motivations in men [sic] by (3) formulating conceptions of a general order of existence and (4) clothing these conceptions with such an aura of faculty that (5) the moods and motivations seem uniquely realistic.\textsuperscript{19}

The world's religious traditions are known for the creative ways in which they utilize symbol to transmit meaning. They dwell in the territory of deeply held values and beliefs, which inspire powerful moods and motivations; religious communities have shown time and again just how effective their religious stories can be at guiding their collective action.

Peter L. Berger is likewise known as one of the most prominent sociologists of his time for his contributions to the development of the sociology of religion and for his theoretical contributions to social theory. The way in which he describes religion is particularly germane because his definition notes the special way in which religion


\textsuperscript{18} Richard A. Shweder and Byron Good, eds., \textit{Clifford Geertz by His Colleagues} (Chicago: University of Chicago Press, 2005), 1.

acts to construct a kind of “cosmos” that lends a sense of order and meaning to the universe. He says, “Religion is the human enterprise by which a sacred cosmos is established…[b]y sacred is meant here a quality of mysterious and awesome power, other than man [sic] and yet related to him, which is believed to reside in certain objects of experience.”

By way of several examples, Berger contends that certain uniformities can be observed cross-culturally regarding the way in which the sacred is attributed to anything from objects and animals to people, institutions, and even cosmic forces. In each of these instances, he argues that a person’s conceptualization of the sacred orients the individual self within a stable cosmos of meaning (the opposite of a sacred cosmos, for Berger, is chaos). He continues, “The cosmos posited by religion thus both transcends and includes man [sic]. The sacred cosmos is confronted by man as an immensely powerful reality other than himself. Yet this reality addresses itself to him and locates his life in an ultimately meaningful order.” The point is that humanity’s religious traditions are fundamentally geared to helping people make sense of their world. Their stories and symbols dynamically construct, implicitly and explicitly, those worldviews that orient the way many people will or will not engage the world or cosmos in which they think they are living.

Charlene Spretnak refers to the valuable moral guidance inherent to these religious traditions as humanity’s “wisdom traditions.” Wisdom traditions offer tried and true narratives and symbols that have sustained religious faith communities with powerful moods and motivations for moral action that span generations. It is to be expected that the contemporary ecological and climate crises require new narratives and new symbols even as some older, more familiar narratives and symbols are reclaimed or re-imagined. I am optimistic that the world’s religious traditions, including Christianity, can engage the challenges of the ecological crisis and the injustice of climate-induced displacement—that they can connect a new generation of the faithful to the wisdom of ages past and yet help us all to make sense of the world in a new way that preserves and sustains the Earth.

The significance of this endeavor, of remembering and reimagining the world’s religious traditions in such a way as to inspire and motivate a social movement, is not without precedence. Mahatma Gandhi appealed to Hinduism, the predominant religion of his beloved homeland, in order to push forward India’s independence movement. Martin Luther King, Jr. appealed to the ancient Biblical story of the Exodus to help mobilize the civil rights movement in the United States. The climate and ecological crisis before us now is a problem so much larger than any of these other social problems because it is a challenge residing at the species level of existence. It threatens not just the survival of one or two nations or peoples but rather the potential for all human beings to survive and thrive alongside all the other species with which we share this Earth. We would be foolish not to apply the best of everything we have to a problem of such magnitude—most especially the moral leadership and energy of all people of faith working for ecological and social justice.

21 According to Berger, on the deepest level of meaning, chaos is the opposite of a sacred cosmos, expressed in several cosmogenic myths. See Berger, The Sacred Canopy, 26.
24 It has been argued that the Exodus story of a people’s liberation has become a prototypical narrative shaping the “cultural consciousness of the West.” See Michael Walzer, Exodus and Revolution (New York: Basic Books, 1985), 7.