



ADVANCED REVIEW

Who are American evangelical Protestants and why do they matter for US climate policy?

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Abstract

White evangelical Protestants are the most skeptical major religious group in the United States regarding climate change. While their position of political influence in the Republican coalition is widely recognised, the full range of effects of this position on evangelicals' climate opinions is not. To move research on evangelicals from the margins of climate change opinion research, we review and integrate the interdisciplinary literature on US evangelicals, climate change, and politics. In assessing this literature, we identify three areas in need of further research. First, there is a critical need for more research on the climate attitudes of evangelicals of color, who comprise a growing share of the evangelical tradition in the US. Second, highlighting the Christian Right's active engagement in the climate debate, we identify a need for more experimental work examining how cues from religious elites may shape evangelicals' opinions. Finally, we suggest that to better harness insights across disciplines, researchers must become more explicitly aware of how different disciplines conceptualize temporality. Attending to temporal scale suggests that a new approach is needed to test how dominion beliefs, which are widely thought to be an important theological driver of climate skepticism, operate. We also suggest that two factors that appear to play a weak or limited role in driving climate skepticism over the short term (anti-science attitudes and evangelical religiosity) may in fact play a significant role in driving skepticism over the medium term.

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1 | INTRODUCTION

Evangelical Protestants, who make up approximately a quarter of the US population, are widely known for their skepticism toward climate change (Jones & Cox, 2017, p. 17; Pew, 2014a, 2014b). They also have significant potential to influence the domestic climate policy debate because of their prominent position in the Republican coalition.¹ Given their

political power and their high levels of *climate skepticism*—a term we use here in a global sense, unless otherwise specified, to denote lack of belief that climate change is happening, that it is caused by human activities, and/or that it is a serious problem—we might expect evangelicals to be at the center of research on climate change opinions in the US. But, research on their role in the climate debate has instead remained on the margins. The relatively few climate studies that do include religious measures conceptualize religiosity simply as a demographic control (Egan & Mullin, 2017, p. 215). Climate literature focusing on US evangelicals specifically is sparse, and frequently indebted to theory developed decades ago to explain something other than attitudes toward climate change.²

A significant obstacle to more and better research on evangelicals is the interdisciplinary nature of the literature on the topic. This literature is not only spread across numerous disciplines—political science, sociology, history, communication and religious studies, etc.—but across disciplinary divides—from the humanities to the social sciences. Drawing on our expertise in the fields of religious studies, environmental communication, public policy, and political science, we provide a critical assessment of the literature on American evangelicals and climate change, with a focus on future research needs. We begin by clarifying why American evangelicals hold great strategic importance in the climate policy debate. Next, we describe the history of evangelical activism on this issue, and overview evangelicals' attitudes toward climate change. Next, we summarize key findings from the literature that seeks to explain evangelical climate skepticism. Finally, we turn to a critical assessment of the literature. Here we identify three areas in need of further research or refinement. First, the literature has largely ignored a subject that should be of keen interest: how evangelicals of color view climate change. Second, there is a critical need for more research on the influence of cues from religious elites. Finally, to enable researchers to more successfully integrate literatures across disciplines—enabling researchers to appreciate the full scope of factors that shape evangelicals' attitudes toward climate change—researchers need to take into account that disciplines have inconsistent assumptions about time, particularly about what timescales (from days to decades to millennia) are of interest (Wood, 2008).

2 | WHY EVANGELICALS MATTER FOR US CLIMATE POLICY

Over the past two decades, white evangelicals, who now make up just 17% of the population, have played an outsized but underappreciated role in the climate debate (Jones & Cox, 2017, p. 17). Why? Because of their level of political influence within the Republican Party. White evangelicals made up almost 40% of Republican voters in the 2012 presidential election, and 46% in 2016 (Husser, 2020; Schlozman, 2015, p. 198). As is well known, this has made them indispensable for Republican efforts to build a successful electoral coalition. As is less well known, this has also made white evangelicals an indispensable constituency for climate denialists.

Those working to scuttle national-level climate legislation in the US have relied heavily on Republican lawmakers for favorable votes (Antonio & Brulle, 2011, p. 198; Turner & Isenberg, 2018, pp. 145–192). This means that they need those lawmakers' constituents, many of whom are white evangelicals, to (at minimum) not passionately oppose the denialist position, lest their favored candidate be voted out of office. Recognizing this, economically conservative political activists who oppose action on climate change have encouraged evangelical leaders to join efforts to cast doubt on the science of climate change (Bean & Teles, 2015, p. 19). Conservative donors have also funneled funds and resources to key evangelical organizations that promote climate skepticism, in order to boost their voices in the evangelical world (O'Connor, 2017). Although there is a need for further research in this area (discussed below), it is therefore likely that white evangelicals' high levels of climate skepticism are due—to an unknown but possibly significant extent—to their strategic position in the climate debate.

White evangelicals' share of the US public is declining (Jones & Cox, 2017), but evangelicals as a whole are likely to remain significant in the climate debate because evangelicals of color have been identified by Republican and evangelical political activists as a major new area for growth (Taylor, Gershon, & Pantoja, 2018, p. 144; Zauzmer & Boorstein, 2020). As discussed further below, evangelicals of color now comprise over a third of the tradition (36%), and are projected to constitute a growing share, if current demographic trends continue. Hence, evangelicals will continue to be highly relevant to research at the intersection of climate change attitudes and policy in the future.

3 | US EVANGELICAL ENGAGEMENT WITH CLIMATE CHANGE

Evangelical environmental activism dates back to the late 1960s and 1970s, when evangelical leaders began to respond to scientific reports of global environmental crisis and calls for a religious response (Kearns, 1997, p. 350; Larsen, 2001,

pp. 1–72; Wilkinson, 2012, pp. 15–16).³ An important result of this growing concern during the 1980s was the emergence of evangelical ecotheology, which sought to motivate an evangelical response to the environmental crisis along religious lines. These efforts eventually led to institution building and to an advocacy movement commonly known as “creation care.” Most relevant to the climate debate was the formation in 1993 of an evangelical environmental advocacy organization known as the Evangelical Environmental Network (EEN; Wilkinson, 2012, p. 19). The EEN first gained national attention in 1996 when it helped block an attempt to weaken the Endangered Species Act (Kearns, 1997). Despite attracting national attention, during the 1990s evangelical creation care advocates remained a “left wing” minority that did not hold significant sway over the evangelical tradition as a whole (Wilkinson, 2012, p. 20).

As the evangelical creation care movement gained momentum, some conservative evangelicals began to question its theological underpinnings and to raise the alarm about its potential political impact. Such concerns eventually resulted in the formation of an organization now known as the Cornwall Alliance, which was founded in 2000 and closely tied to the already-powerful Christian Right, the politically conservative wing of the broader evangelical tradition.⁴ Articulating an environmental vision heavily indebted to free market economics (Zaleha & Szasz, 2014, pp. 212–213), the Cornwall Alliance, as detailed below, led several intragroup attacks on the EEN's efforts to focus on climate change, and have become the primary hub for organized climate denial in the evangelical community (Bean & Teles, 2015, p. 7).⁵

The year 2000 marked the beginning of escalating tensions over climate change within the evangelical community. The EEN publicly broached the issue of climate change in 2002 by signing the “Oxford Declaration on Global Warming,” and subsequently launching a highly-visible “What Would Jesus Drive?” campaign to raise awareness about fossil-fuel consumption (Wilkinson, 2012, p. 22). In 2004, the EEN co-hosted a conference with two flagship organizations of the evangelical center: the magazine *Christianity Today* and the National Association of Evangelicals (NAE). With the notable participation of a few Christian Right groups, the conference resulted in the “Sandy Cove Covenant and Invitation,” a declaration affirming the importance of creation care, though no consensus was reached on climate change (Wilkinson, 2012, p. 23). In 2004, the NAE also approved “For the Health of the Nation,” a public policy guide that, in a historic shift away from the traditional morality-based concerns of the Christian Right, included caring for God's creation among its concerns.

These statements paved the way for the EEN to launch a high-profile climate campaign, called the Evangelical Climate Initiative (ECI) in 2006. The ECI was launched in February with the release of “Climate Change: An Evangelical Call to Action,” a declaration that boasted 86 signatories, including high profile figures from the evangelical center, like megachurch pastor Rick Warren of Saddleback Church in Orange County, and Duane Litfin, president of Wheaton College (known as the Harvard of the evangelical world; Wilkinson, 2012, p. 24).

The ECI generated intense media coverage, and spurred a wave of optimistic academic assessments of the movement's potential to transform the climate debate (e.g., McCammack, 2007; Simmons, 2009; Wardekker, Petersen, & Sluijs, 2009; Wilkinson, 2010). Equally important was the ECI's timing: it coincided with the release of Al Gore's Academy Award-winning documentary *An Inconvenient Truth* (2006), the Intergovernmental Panel on Climate Change's Fourth Assessment Report (2007), and a period (through 2008) when prominent Republican politicians like John McCain, Newt Gingrich, and Lindsay Graham were supportive of climate legislation (Brulle, Carmichael, & Jenkins, 2012; Skocpol, 2013, p. 71). The ECI was well timed to give a critical boost to the passage of major climate legislation. But this potential also put the evangelical “climate care” movement (as Wilkinson dubs it) in the crosshairs of climate denialists (Wilkinson, 2012, p. xii).

While the ECI had the support of leaders in the evangelical center and left, the Christian Right strongly opposed it. Coordinating through the Cornwall Alliance, those associated with the Christian Right attacked. They argued in a series of letters and counter-declarations that human-induced climate change was not a real or serious problem and that economic growth was a more worthwhile focus, while strenuously objecting to the NAE's role in developing and promoting the ECI (Bean & Teles, 2015, pp. 6–9; Wilkinson, 2012, pp. 67–68). In 2008, a seemingly parallel initiative to the ECI, called “A Southern Baptist Environment and Climate Initiative” (SBECI) was launched by a group of Southern Baptists. Like the ECI, the SBECI produced a declaration that addressed environmental and climate concerns. It was not an official declaration of the politically-influential Southern Baptist Convention, and was more moderate and equivocal about climate change than the ECI's “Call to Action,” but media coverage about it created the impression that Southern Baptists, like evangelicals more generally, were eagerly pushing for climate action (Veldman, 2019, pp. 132–152). Three factors—the release of the ECI and the SBECI, concerns that the Christian Right's power to set the evangelical agenda was “cracking up” (Djupe & Claassen, 2018), and pressure from economic conservatives tied to

evangelical political elites—were instrumental in driving leaders in the Christian Right to push back against evangelical climate advocates (Bean & Teles, 2015, pp. 7–8; Veldman, 2019, pp. 190–205). By 2008, a number of Christian Right figures who operated media ministries had begun addressing climate change on their radio and television programs, the majority of them either implicitly or explicitly presenting skepticism as the biblical position on climate change (Veldman, 2019, pp. 161–189).

The efforts of evangelical climate skeptics during this period were part of a major and apparently successful mobilization on the part of climate denialists against national-level climate legislation. Thanks in part to conservative media amplifying a denialist message, Republican acceptance of climate science fell 27 points between 2007 and 2009 (Mayer, 2012). Melting public support was a significant reason why the American Clean Energy and Security Act, a cap-and-trade bill that passed in the House in June 2009, did so with few Republican votes (Skocpol, 2013, pp. 69–84). Republican support for climate legislation was decisively extinguished by the emergence of the ultra-conservative and deeply anti-environmental Tea Party in 2009–2010, which threatened any Republican legislator willing to support it with a primary challenge—a perceived threat which continues to block action (Kroll, 2016). The Cornwall Alliance continued to support the anti-climate change backlash during this period by releasing “Resisting the Green Dragon,” an anti-environmental “documentary” in which well-known Christian Right figures warned the faithful about the dangers of environmentalism (see Alumkal, 2017, pp. 171–177; Hempel, MacIlroy, & Smith, 2014). Faced with fading Republican support, and possibly hobbled by Democrats’ limited political capital during this period, the Senate never mustered enough votes to pass the climate bill, officially admitting defeat in July 2010.⁶

Although climate legislation has not had a realistic chance of passing in congress since that time, evangelical climate activism has continued, albeit out of the spotlight. Reports suggest that the energy has shifted toward young evangelicals (Lamb, Lowe, & Meyaard-Schaap, 2019; Subramanian, 2018), who may be more liberal—and therefore more reachable—on environmental issues than their elders (Smith & Johnson, 2010). Nevertheless, as the next section shows, levels of skepticism have remained high in the tradition.

4 | US EVANGELICALS AND CLIMATE CHANGE: OVERVIEW OF ATTITUDES

The basic finding of survey work on evangelicals and climate change will be surprising to few: US evangelicals are less likely to accept that climate change is occurring, that it is caused by human activities, or that it is a serious problem than nonevangelicals and/or than most other major religious groups in America (e.g., see Barna Group, 2008; Barna Group, 2016; Jones, Cox, & Navarro-Rivera, 2014; Leiserowitz, Maibach, Roser-Renouf, Feinberg, & Rosenthal, 2015; LifeWay Research, 2011; Maibach, Roser-Renouf, & Leiserowitz, 2009; Pew, 2007, 2015). The data in Figure 1 is dated, but demonstrates well the trend that most surveys have shown: in comparison with America’s other major religious groups, white evangelical Protestants are among the least concerned about climate change. With few exceptions, the same general pattern of lower levels of concern continues for other climate-related questions. Looking at these patterns over time, white evangelicals have maintained these lower levels of acceptance and concern for at least the last decade and a half (Mills, Rabe, & Borick, 2015).

It is important to recognize that the evangelical community is not monolithic: results from a PRRI survey on climate change suggest that nearly one fifth of white evangelicals were “very concerned” about the issue in 2014 (Figure 1). Similarly, according to the 2008 “Six Americas” report, 16% of those alarmed about climate change and 21% of those concerned about it described themselves as evangelical or born-again (Maibach et al., 2009, p. 119). It is equally important to be aware that surveys identify evangelicals in different ways, which can influence study results (Box 1). To address the question of why skepticism predominates, at least among white evangelicals, we now turn to our review of the theoretical literature.

5 | EXPLAINING US EVANGELICAL CLIMATE SKEPTICISM AND DENIAL

The bulk of the quantitative research on evangelicals and climate change has focused on understanding drivers of skepticism. Notably, this literature has focused almost exclusively on white evangelicals. It has also tended to conceptualize religion as affecting climate attitudes indirectly, via adherents’ deeply embedded religious beliefs or dispositions, rather

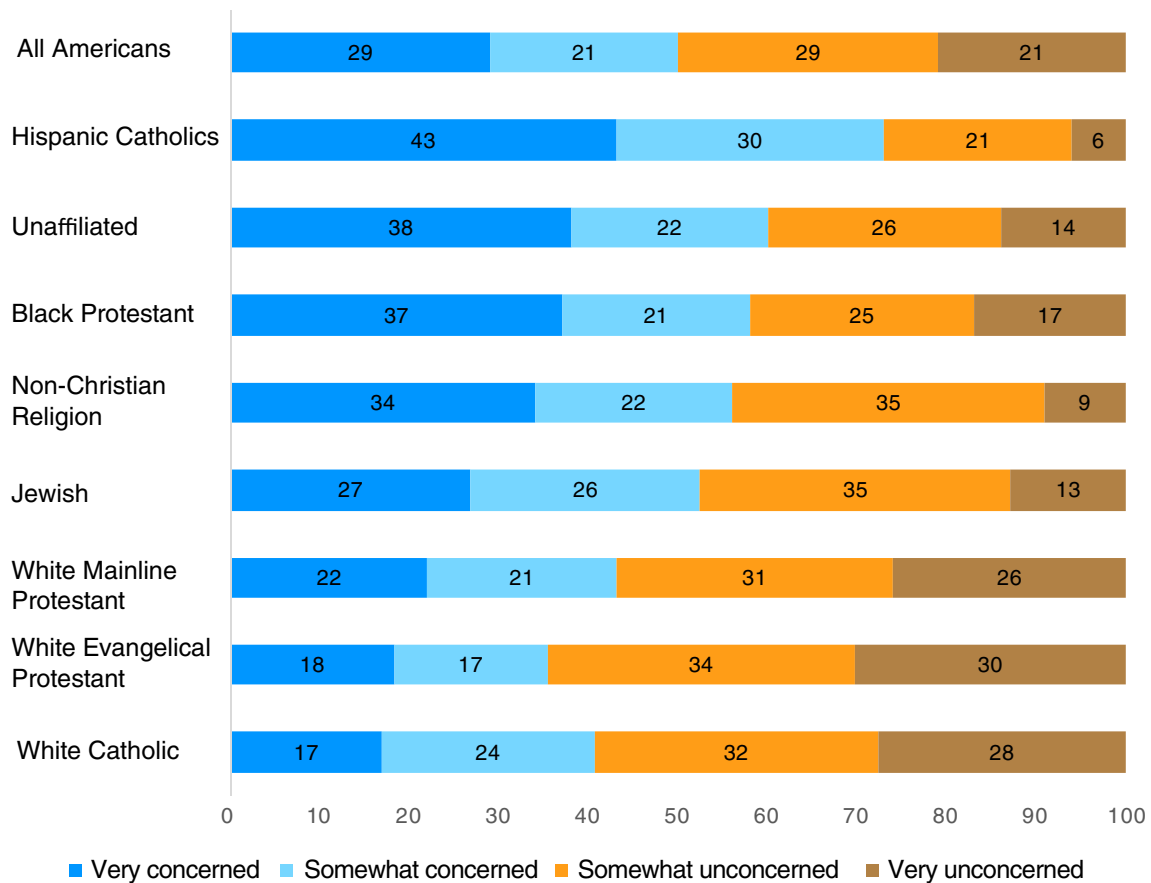


FIGURE 1 Climate Change Concern Index by Religious Affiliation (2014). Note: The Climate Change Concern Index is based on responses to two questions: whether respondents perceive climate change to be a crisis and whether respondents believe climate change will negatively affect them personally (Jones et al., 2014, p. 14). Source: Adapted with permission from Public Religion Research Institute, 2014

than directly, through the efforts of religious messengers. In the next section, we discuss these limitations in greater depth.

The two major drivers of evangelical climate skepticism that have been assessed empirically relate to (1) *politics* and (2) *theology*, specifically, dominion beliefs, end time beliefs, attitudes toward collective action, and anti-science attitudes. Comparing the quantitative and qualitative literature on evangelicals' climate change attitudes, we find the most unequivocal evidence for the influence of *politics* and *attitudes toward collective action*. The evidence for other commonly cited drivers is mixed or weak, some of which can be reconciled, as the next section argues, by closer attention to temporal scale.⁷

Regarding the role of politics, which most agree plays a dominant role, four findings stand out. First, and not surprisingly, political conservatism is associated with decreased acceptance of and concern about climate change (Arbuckle, 2017; Arbuckle & Konisky, 2015; Barker & Bearce, 2012; Chaudoin, Smith, & Urpelainen, 2014; Ecklund, Scheitle, Peifer, & Bolger, 2016; Evans & Feng, 2013; Kilburn, 2014; Peifer et al., 2014; Shao, 2016; Shao & McCarthy, 2020; Smith & Leiserowitz, 2013).⁸ Second, politics is generally found to have a stronger effect on climate change attitudes than religion (e.g., Arbuckle & Konisky, 2015; Ecklund et al., 2016; Egan & Mullin, 2017; Shao, 2016). However, third, evangelicalism (or religious measures associated with evangelicalism) typically remains statistically significant after politics is accounted for, indicating that evangelical religiosity may contribute to skepticism separate from and in addition to political conservatism (but see Evans & Feng, 2013). Fourth, there is evidence that the product of conservative religiosity and conservative politics is a particularly potent source of climate skepticism. Kilburn (2014, p. 482) found that “strong” Republicans of high religiosity were more than twice as likely as “strong” Republicans of low religiosity to be skeptical of the human origins of climate change. Arbuckle and Konisky (2015) found that being more religiously committed pushed evangelicals into lower levels of climate concern. Arbuckle (2017) found that

BOX 1 IDENTIFYING EVANGELICALS IN CLIMATE RESEARCH

There are three major strategies for identifying evangelicals in survey research (Smidt, 2019). Climate researchers should be aware that different strategies may yield different results when it comes to climate variables. The first strategy is to identify evangelicals by their adherence to certain *beliefs*. For example, the NAE defines evangelicals as those who strongly agree that “the Bible is the highest authority for what I believe”; that it is very important to share the gospel with non-Christians; that Jesus Christ’s crucifixion is “the only sacrifice that could remove the penalty of my sin” and that “only those who trust in Jesus Christ alone as their Savior receive God’s free gift of eternal salvation” (NAE, 2015). The second approach (the most common in climate research) is to assign individuals to the *evangelical tradition* based on their denomination, usually using a coding scheme known as RELTRAD (Steenland et al., 2000). The third approach, *self-identification*, conceptualizes evangelicalism as a religious movement. In this approach, evangelicals are those who self-identify either as “born again or evangelical,” or as one of these options (alone). Studies using these approaches deal with race in different ways, but many evangelicals of color are placed in other categories (e.g., identified as Black Protestants). See Section 6.1 for further discussion.

It is critical to ask how studies operationalize evangelicalism when comparing findings. For example, the born again only item is not a good approximation of a combined “evangelical or born again” item, because there are up to twice as many self-identified “born again” Protestants as there are self-identified “evangelical” Protestants (Smidt, 2019, p. 843). Furthermore, Smith, Hempel, and MacIlroy (2017) found that the born again alone item had inconsistent results for climate attitudes when compared with other identification strategies. In another example, Evans and Feng (2013) found that evangelical Protestantism was *not* significantly related to climate change attitudes, while most other studies find a significant, negative relationship. However, this study operationalized evangelicalism such that only 6% of their sample qualified.

evangelical Protestants across the political spectrum cared less about climate change than their ideological peers; the effect was most pronounced among liberals.

The literature above primarily draws on quantitative sources, but the qualitative literature also sees politics as an important driver of skepticism, both directly (evangelicals tend to reject climate change as a liberal issue) and indirectly (evangelicals appear to be persuaded by the arguments that climate denialists have promoted among the politically conservative; Carr et al., 2012, pp. 284–285; Veldman, 2019, pp. 103–109; Wilkinson, 2012, pp. 100–105). In sum, the literature suggests that politics plays a dominant role, both in their own right, and in association with religion.

Turning to religion, despite calls in the literature on religion and the environment to focus on a broader set of religious factors (Djupe & Hunt, 2009; Smith & Veldman, 2020; Vaidyanathan, Khalsa, & Ecklund, 2018), most attention has focused on theology. Most prominently, over the past 50 years, a voluminous literature has explored whether the “dominion” reading of Genesis—the idea that God sanctioned human exploitation of the earth’s resources (White Jr., 1967)—explains lower levels of concern about the environment among Christians. Although serious questions have been raised about the “Lynn White thesis” and how it has been operationalized in social scientific research (e.g., Djupe & Hunt, 2009; Minter & Manning, 2005; Whitney, 2017), it has had a long half-life in research on evangelicals, where it is commonly used to explain climate skepticism (Arbuckle & Konisky, 2015; Kilburn, 2014; Shao, 2016; Shao & McCarthy, 2020). However, the qualitative evidence for this driver is mixed. Wilkinson (2012, p. 90) found this rationale conspicuously absent. Other researchers have described a pervasive sense that human needs should be prioritized over those of the natural world (Carr et al., 2012, pp. 288–289; Peifer et al., 2014, pp. 383–385; Veldman, 2019, pp. 58–59). But, such beliefs accompanied a sense of environmental responsibility (excluding climate change) rather than the attitude that “it is God’s will that man exploit nature for his proper ends” (White Jr., 1967, p. 1205).

A second prominent theological explanation is that end time beliefs—the belief that Jesus will return to earth soon—is a key factor preventing evangelicals from caring about long-term environmental problems like climate change (e.g., Kearns, 2007; Nagle, 2008; Ronan, 2017; Simmons, 2009). Though a number of climate studies reference this idea (Kilburn, 2014; Shao, 2016; Shao & McCarthy, 2020), the only one that has specifically tested it is Barker and

Bearce (2012), which found that believing Jesus would return to earth someday reduced support for government action to address climate change between 12 and 20%. In a related study, Chaudoin et al. (2014) found that evangelicals were less supportive of international climate policy than other Americans but equally supportive of domestic climate policies, which they attributed to evangelicals' fears of a one-world government, which many evangelicals believe will come to power as the end times near. However, qualitative researchers have found minimal evidence of evangelicals who assert that climate change need not be addressed because the end is near (the logic that Barker and Bearce proposed). Qualitative researchers instead find that end time beliefs more commonly obstruct concern via different logics: because informants interpret climate change as a secularist narrative constructed to compete with Christian teachings about the end times, and because they see the idea of human-caused climate change as incompatible with their faith that God controls the end of the world (Carr et al., 2012, pp. 292–293; Peifer et al., 2014, pp. 385–388; Veldman, 2019, pp. 69–85; Wilkinson, 2012, pp. 91–92).

A third theological explanation is attitudes toward collective action. Evangelicals are thought to have a theologically rooted preference for individual, rather than collective or structural solutions to societal problems (Emerson & Smith, 2000, pp. 78–79), which would tend to reduce support for climate policies that require large scale coordination and/or aim to provide widespread social benefits (Haluza-DeLay, 2008; Kearns, 2007; Nagle, 2008). Providing some support for this assertion, Smith and Leiserowitz (2013) found that having an individualistic worldview significantly predicted less support for domestic climate policies among evangelicals. Qualitative researchers have amply documented a preference for individual over collective solutions, giving further weight to this explanation (Peifer et al., 2014; Veldman, 2019, pp. 53–54; Wilkinson, 2012, pp. 101, 105–107).

Fourth, anti-science attitudes rooted in the debate over evolution are widely thought to play a role in climate skepticism (Kearns, 2007; McCammack, 2007; Nagle, 2008; Sheldon & Oreskes, 2017). Despite ample historical evidence of the impact of the evolution debate on the evangelical tradition (discussed below), contemporary empirical research presents a weak case for this driver. In a study comparing climate skepticism with evolution skepticism, Ecklund et al. (2016) found that evolution skepticism was not a significant predictor of climate skepticism, once other explanations were considered. Furthermore, while a model predicting evolution skepticism showed that it was almost completely explained by religion variables, an identical model for climate skepticism found that other explanations, especially political conservatism, accounted for most of the variance. Yet while evolution skepticism was not a significant predictor of climate skepticism, evangelical Protestantism was, suggesting that to the extent that evangelical religiosity shapes climate opinions, it does so through some other avenue than anti-science attitudes. Qualitative research seems to support this point. Studies have found scientific skepticism to be common, but informants tend not to spontaneously link it to concerns about evolution (but see Carr et al., 2012, pp. 286–287; Veldman, 2019, p. 110).

Several other possible theological drivers have not been tested via quantitative methods, to our knowledge: the fear that environmentalism will lead to Paganism, pantheism, or other forms of earth-worship (Kearns, 2007; Simmons, 2009); the prioritization of salvation and saving souls over this-worldly concerns like climate change (Kearns, 2007; Roberts, 2012); and anti-intellectualism. Qualitative researchers report little evidence of the first (but see Veldman, 2019, pp. 120–121), but ample evidence of the second (Carr et al., 2012, pp. 294–295; Veldman, 2019, pp. 62–67; Wilkinson, 2012, pp. 97–99). The third, anti-intellectualism, is difficult to distinguish from anti-science attitudes because both entail suspicion of expertise, but seems likely to play a role (Veldman, 2019, pp. 212–214; Ward Sr., 2020). Finally, despite significant historical research showing evangelicals' embrace of economic conservatism, economic ideology has only been investigated by one study (Longo & Baker, 2014), which did not focus specifically on climate change attitudes. Quantitative investigation of these additional drivers of climate skepticism is an area for further research.

6 | ASSESSING THE LITERATURE AND FUTURE RESEARCH NEEDS

Based on this review, we identify three areas in particular need of further research. First, we suggest that for more theoretically robust insights to emerge, researchers need to extend their focus beyond white evangelicals, who comprise a declining share of the evangelical tradition in the US. Second, since evangelicals occupy a strategically significant position in the climate debate, there is a critical need for researchers to pinpoint how and to what extent religious sources, messages, and message formats affect lay evangelicals' climate opinions. Finally, for insights from different disciplines to usefully inform each other, we urge researchers to find ways to better integrate research across temporal scales.

6.1 | The need for more research on evangelicals of color

To date, climate researchers have focused almost exclusively on white evangelicals, ignoring evangelicals of other racial and ethnic backgrounds. Yet stimulating more research on evangelicals of color is critical because a major transition along racial and ethnic lines is currently underway within US evangelicalism, as the tradition grows less white. As of 2016, slightly over a quarter of the US population self-identified as evangelical, but whites accounted for just 64% of this group (Jones & Cox, 2017, pp. 16–17). Moreover, the white share has been decreasing, from 23% of the US population in 2006 to just under 17% in 2016 (Jones & Cox, 2017, p. 20). (A similar transition is underway among Catholics and Mainline Protestants). Given that only half of evangelicals under the age of 30 are white, this trend is likely to grow even more pronounced in the coming decades (Jones & Cox, 2017, p. 17).

This transition may have major implications for climate change attitudes, as well as for researchers' theoretical understanding of how religion shapes them. Existing research in this area is sparse, but suggests that the transition could contribute to a decline in evangelical climate skepticism. For example, Green (2014, pp. 144, 141) found that the younger, more racially and ethnically diverse segments of the evangelical community are more concerned about the environment (he did not investigate climate change specifically). Smith and Johnson's (2010) study of generational change, which did examine climate change, found a 17 point gap between the percentage of young and old evangelicals who expressed strong agreement that climate change would have disastrous effects (40 and 23%, respectively). However, this study did not examine differences in climate change attitudes by race. Wong (2018) compared views of self-identified born again or evangelicals Christians by race, and found that only about a tenth of Black, Asian American, or Latinx evangelical Christians disagreed that the federal government should combat climate change, compared to 27% of whites (Wong, 2018, p. 23).

Data from the National Surveys on Energy and Environment allow us to add to this conversation by comparing the climate attitudes of white evangelicals with those of evangelicals of color over time. As Figure 2 shows, between 2008 and 2019, evangelicals of color were consistently more likely to accept the scientific consensus on climate change than their white counterparts. These differences were statistically significant in 7 out of the 20 survey waves (with p values ranging from $<.001$ to $.01$).

What accounts for these differences? Remarkably, researchers have not yet investigated this question in depth. Based on existing survey data, we suggest that theology is not a likely explanation. Almost equal percentages of Black Protestants and white evangelical Protestants believe that God gave humans the right to use natural resources for their benefit, a view that echoes the Lynn White thesis (43 and 46%, respectively; Jones et al., 2014, p. 33). Black Protestants are also almost as likely as white evangelicals to interpret recent natural disasters as signs of the end times (74 and 77%, respectively), and *more* likely than white evangelicals to say that science and religion are often in conflict (62 and 55%, respectively; *ibid.*, 23, 26). Self-identified evangelicals of Black, Latinx, Asian American, or white origin all have similar levels of religious commitment, and Asian American evangelicals express higher levels of belief that their faith is the "one, true faith" than do white evangelicals (Wong, 2018, p. 18; Pew, 2012). While more data is clearly needed, as sociologist Laurel Kearns has pointed out, theology alone seems unlikely to be able to account for differences in evangelicals' climate attitudes across different ethnic and racial backgrounds (Gould & Kearns, 2018; Kearns, 2018).

The relative inability of dominion, end time, or anti-science beliefs to inspire climate skepticism among evangelicals of color raises important questions about how theology operates as a driver. Specifically, more theoretical work is needed to explain why theology might operate differently in different ethnic and racial contexts. While not a focus of this review, such questions could and should also be addressed by studying the climate attitudes of evangelicals outside of the US, where climate skepticism appears to be less entrenched or to have a different valence.⁹ Equally important is to consider whether/how race has shaped the theological commitments of white evangelicals in ways that may ultimately affect their attitudes toward climate change. And finally, it would be useful to understand how generational differences and the change in the tradition's racial makeup may be interacting: are young white evangelicals as likely as young evangelicals of color to be concerned about climate change? Or are evangelicals of color in fact driving the apparent generational divide?

The second most likely explanation is politics. Here it becomes apparent that the way that most climate studies deal with race and religion has obscured potentially interesting patterns. All of the quantitative studies reviewed in Section 5 that seek to explain evangelical climate skepticism focus exclusively on white evangelicals. To do so, they typically enter race as a demographic control. Those studies that use the RELTRAD coding scheme also include many black evangelicals within the Black Protestant category, instead of counting them in the evangelical category (Smith, Sciupac, Gecewicz, & Hackett, 2018). If we were to examine whether partisan commitment explains higher levels of climate

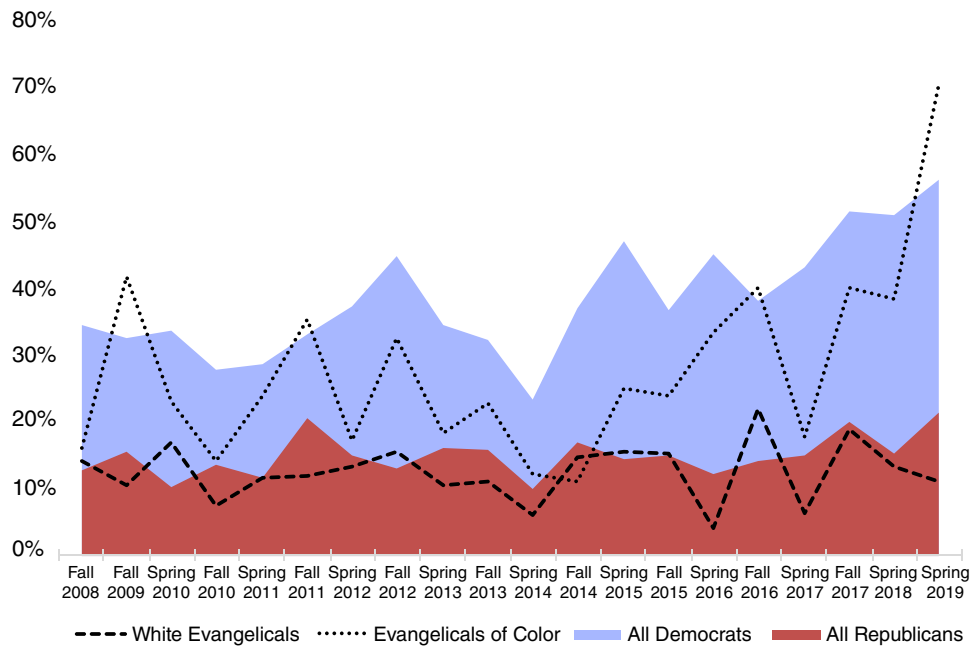


FIGURE 2 Acceptance that the earth is getting warmer because of human activity among white evangelicals and evangelicals of color (2008–2019). Note: White evangelicals are Protestants who identified themselves religiously as evangelical Christian (Q: Would you describe yourself as an evangelical Christian?) and who identified themselves racially as white. Evangelicals of color are Protestants who identified themselves religiously as evangelical Christian and who identified themselves racially as African-American, Hispanic/Latino, Asian, Native American, Mixed Race, or Other. Across all survey waves, African Americans comprised 66%, Hispanic/Latino 19%, Asian 2%, and mixed race/other 13% of the “evangelicals of color” category. The percentages of those who accept anthropogenic climate change are lower in this dataset than have been reported in comparable studies because they are the result of a two-part question. Only those who agreed that the earth was getting warmer were asked whether they thought the cause was human activities or mostly natural patterns. Respondents who thought the climate was warming but volunteered that they thought it was a mix of human activities and natural patterns are not counted among those who “accept” anthropogenic warming (graphed above). While these percentages should therefore be compared with caution to other studies, they are nevertheless useful in showing the persistent gap in climate change acceptance between white evangelicals and evangelicals of color. See Appendix A for sample sizes. *Source:* Reprinted with permission from Borick, Christopher, Mills, Sarah, and Rabe, Barry. National Surveys on Energy and Environment

change acceptance among evangelicals of color, it is unclear what we would find. On many issues, evangelicals of color are not as politically conservative as white evangelicals. However, they do tend to be more politically conservative than nonevangelical members of their racial or ethnic communities (Wong, 2018, p. 38). Peifer et al. (2014) found in their qualitative study that politics was an obstacle to concern among white evangelicals, but not among their black counterparts. As far as we can tell, this question has not been explored with Latino or Asian-American evangelicals. There is a clear need for more research to better understand the associations between religious beliefs, climate change attitudes, and race in America.

Research in this area would not only be practically relevant, but would also shed additional light on the dominant theological explanation for evangelical climate change skepticism. Since the Lynn White thesis has no mechanism for explaining why evangelicals of different races might hold the same theological views while adopting different environmental attitudes, further research in this area could potentially push researchers to examine more sophisticated theories about race that better explain diverse climate change attitudes among evangelicals.

6.2 | The need for research on the influence of religious elites

It is well known that elite cues can rapidly shift opinion climate change (Brulle et al., 2012; Guber, 2013), but there has been remarkably little work examining what messages evangelicals and other Americans may receive from *religious* elites—including the source, framing and format of these messages and their effects. Instead, as described above, those

researching evangelicals' attitudes toward climate change quantitatively have generally adopted a static conception of religion as acting through putatively timeless doctrines, such as those related to dominion or the end times. As Djupe and Hunt (2009) point out, however, this “does not provide a mechanism for opinion change except as religious beliefs change over time, and there is no mechanism for changes in beliefs” (Djupe & Hunt, 2009, p. 671).

Veldman (2019) outlines how Christian Right leaders increasingly addressed climate change on their Christian radio and television programs in the wake of the ECI. What remains unknown, however, is the impact of messaging from different elite sources (e.g., political leaders vs. local clergy vs. religious leaders on radio and television) and how effective similar message sources, framing and formats are today on the views of the lay evangelicals (either white or of color) who are so critical to climate deniers' legislative ambitions. Providing a rough indication of influence, between 2010 and 2019, the National Surveys on Energy and Environment recorded dramatic fluctuations in the percentage of white evangelical climate skeptics who gave religious reasons for their skepticism (Figure 3). This offers an important clue that signaling from religious elites may be associated with white evangelicals' climate beliefs. Regarding evangelicals of color, sample sizes were too small to draw meaningful conclusions (see Appendix A), but across all survey waves, 20% of evangelicals of color who were climate skeptics gave religious reasons. Clearly, much remains to be explored in terms of how elite signaling operates and intersects with race, politics, and evangelical climate skepticism.

Given evangelicals' potential influence in the climate debate, the absence of work exploring how elite cues enable them to connect their religious predispositions to climate change attitudes is surprising. An extensive body of literature in political science has shown that most citizens do not do this automatically. Instead, elite leadership guides public opinion, helping people make the connection between their basic values and predispositions and specific attitudes about issues (Zaller, 1992). When elites agree on the appropriate policy steps, there is minimal public debate about an issue (Darmofal, 2005). There is also a substantial literature, best exemplified by the work of Djupe and colleagues (Djupe & Calfano, 2013, 2019; Djupe & Gilbert, 2003; Djupe & Gilbert, 2008) that illustrates how the messages parishioners receive from their clergy, in particular, enable churchgoers to link their faith to their attitudes about specific policies.

Exploring the influence of religious elites would require, as a first step, systematically investigating the messages that evangelicals receive about climate change—messages from both religious leaders and from evangelical elites conveyed via the evangelical mass media (Ward Sr., 2015). Christian television, radio, and online content is an industry worth millions of dollars annually (NRB, n.d.), with large minorities of evangelicals consuming some form of Christian media on a weekly basis (Pew, 2014a; Pew, 2014b). A few studies have touched on these messages (Danielsen, 2013; Sumser, 2016; Veldman, 2019) or the effects of religious messengers (Hayhoe, Bloom, & Webb, 2019; Sleeth-Keppler, Perkowitz, & Speiser, 2017), but major gaps remain, especially relating to online content, which has been shown to be influential in spreading misinformation about climate change in secular contexts (Dunlap & McCright, 2011; Lewandowsky, Ecker, Seifert, Schwarz, & Cook, 2012). Additional remaining questions include: Which religious

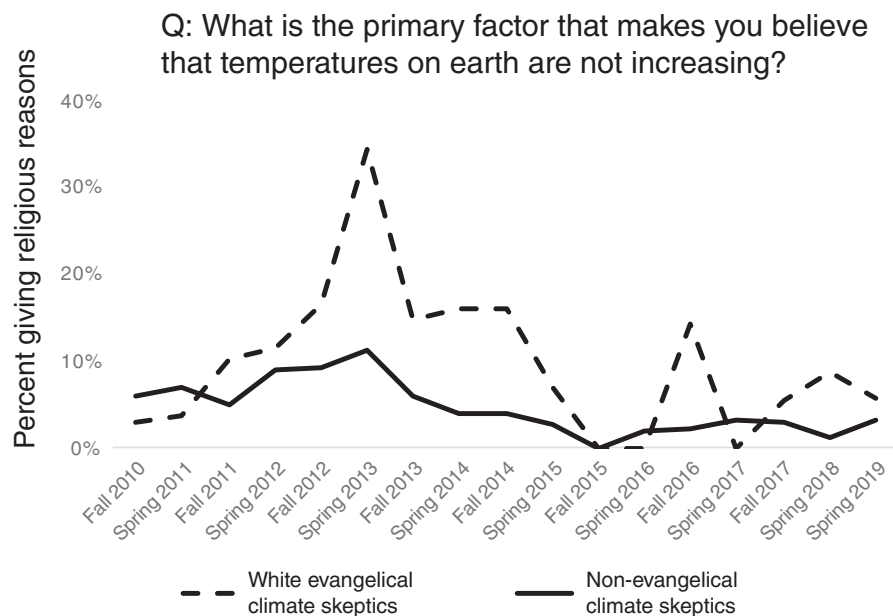


FIGURE 3 Fluctuating Levels of Religious Climate Skepticism, 2010–2019—Evidence of Elite Cues? Note: Climate skeptics are respondents who said there was no solid evidence that the average temperature on earth has been getting warmer over the past four decades. Skeptics were asked the “primary factor” for their views in an open-ended format; responses were coded as religious if respondents gave answers that referenced religion, such as “God controls the weather.” Evangelicals are Protestants who self-identified as evangelical Christians. See Appendix A for sample sizes. Source: Reprinted with permission from Borick, Christopher, Mills, Sarah, and Rabe, Barry. National Surveys on Energy and Environment

messengers are perceived as credible? How do receivers interpret, perceive, and process messages from evangelical sources compared to nonevangelical and secular sources? How do religious messengers frame (Druckman, 2001) climate change? How have these frames shifted over time? How do race, region, and political orientation intersect and influence evangelicals' evaluations of religious messaging? Answers to these questions would enable researchers to form theoretically driven hypotheses about the association between religious messages and evangelicals' attitudes about climate change at a fine temporal grain.

Testing such hypotheses requires an experimental approach, as standard surveys are severely limited in their ability to test causality. While there has been surprisingly little experimental work on evangelicals and climate change, experimental methods, particularly framing experiments, are the standard approach in much of the literature on climate change (e.g., Bolsen, Palm, & Kingsland, 2019; Feldman & Hart, 2018; Nisbet & Mooney, 2007). Bolsen and Shapiro (2017) identify dozens of experiments that test why people think about climate change the way they do. There is also a wealth of literature on the use of experiments in religion and politics more broadly from which to draw (see Djupe & Smith, 2019 for an extensive review). Djupe and Gwiasda (2010) and Goldberg, Gustafson, Ballew, Rosenthal, and Leiserowitz (2019) show the promise of incorporating experimental techniques, but more work is needed to expand the body of experimental research at the intersection of religion, race and climate change.

Given the general lack of research in this area, it is perhaps not surprising that there has been no work exploring how elite cues might impact evangelicals of color in particular. Yet answering such questions is critical given that political strategists have identified evangelicals of color as a new major area of growth for the Republican coalition (Taylor et al., 2018, p. 144; Zauzmer & Boorstein, 2020). Leading politically conservative black evangelicals such as Harry Jackson Jr. and E. W. Jackson have, in fact, explicitly connected their evangelical faith to climate skepticism (Veldman, 2019, pp. 180–181; Jackson, 2019). On the other hand, up to 15,000 leaders in the Black Church, including some evangelicals, signed a statement calling for action on climate change as “one of the greatest public health challenges of our time.”¹⁰ These trends and signals highlight the need for future work exploring the sources, frames, and formats of messages targeting evangelicals of color and examining the effects of these variables on individuals' climate attitudes.

Further research on the impact of cues from religious elites would clear the way to investigate heterogeneity of thought among evangelicals. The existing observational survey work mostly focuses on if evangelicals differ from non-evangelicals on average and not *which* evangelicals are skeptical about climate change. This provides no guidance about how strong or weak (Miller & Peterson, 2004) attitudes are, which has important implications for how they might be changed.

6.3 | The importance of considering temporality in cross-disciplinary research

Our final suggestion is that to better harness theoretical insights across disciplines, researchers should take into account the different timescales at which these disciplines operate. No discipline, in our view, has a fundamentally better approach to temporality, but problems *can* arise if temporality is not adequately considered when ideas are borrowed or shared across disciplines. In addition, it is critical to recognize that the relative influence of certain drivers of climate skepticism may shift depending on what temporal scale is adopted.

A number of academic disciplines have developed extensive literatures on American evangelicalism, much of which is relevant to understanding the tradition's relationship with climate change. Yet an often overlooked barrier to bringing these different disciplinary literatures into conversation is that their analyses may be conducted at drastically different temporal scales. For example, certain disciplines study changes in social phenomena that occur on a daily, monthly, or yearly basis—for example, political scientists often study changes in opinion about political issues, many of which can be seen to shift from month to month, or year to year. By contrast, other disciplines study changes that occur over decades—for example, historians might examine how a religious tradition changes over the course of the 20th century. Finally, disciplines like philosophy and religious studies may focus on a religious “worldview,” which is presented as relatively static and ahistorical—that is, timeless.¹¹ When attempting to integrate insights across disciplines, it is therefore essential to be alert to the fact that different disciplines may be “implicitly grounded on conceptual clocks that tick at different paces” (Wood, 2008, p. 272).

Bringing temporal scale to the foreground reveals that theories about US evangelicals, politics, and climate change operate on at least three different temporal scales. For our purposes, the finest temporal grain of analysis is the scale of days, months, or from year to year (Table 1, top row). Studying evangelicals and climate change at this temporal scale

entails, for example, examining whether/to what extent factors such as cues from elites, media coverage, and weather may influence evangelicals' levels of concern or acceptance of climate change in the short term. As we argued above, this scale is underrepresented in the current literature and limited by an almost exclusive focus on secular political drivers and white evangelicals.

For our purposes, a “medium” temporal grain of analysis refers to the scale of decades to a century. Studying evangelicals and climate change at this temporal scale would, for example, examine how evangelicalism in the US has changed during the past half century, and how those changes might impact climate attitudes (Table 1, middle row).

Finally, we consider a “coarse” grain of temporal analysis, which for our purposes refers to centuries to millennia (Table 1, bottom row). It is impossible to study evangelicals and climate change directly at this scale, since it is so clearly a contemporary problem rooted in a contemporary religious community. Yet it remains possible that fundamental or longstanding elements of the Christian (or Western) “worldview” could shape how contemporary people relate to nature. Could assumptions about humanity's superior place in the created order that were encoded in scripture over 2000 years ago be linked to the eventual emergence of anthropogenic climate change and other environmental crises? Indeed, this was Lynn White, Jr.'s basic claim. A second theory that might be said to operate at this temporal scale is that Christianity's historical emphasis on the afterlife—that is, the tradition's otherworldliness—might obstruct concern about this-worldly problems, including environmental decline (for one of many possible examples of this critique, see Ruether, 1992). Following this logic, some observers have argued that evangelicals' conviction that “this world is not my home” has reduced their willingness to address climate change (Simmons, 2009, p. 58).

Critical readers will no doubt point out that Christian teachings regarding the human-nature relationship and the nature of the afterlife have changed dramatically over time, and very different answers have emerged within the various branches of Christianity. We would suggest that this critique misses the point by attempting to redirect the discussion toward a finer temporal scale, where we could precisely examine how the views of particular Christian communities have changed and diverged. But our point is this: researchers should not necessarily have to adopt a finer temporal scale in order to conduct their analyses or automatically, unself-reflexively assume that days, months, years and decades are the only valid scales of temporal analysis (even if these are the scales on which our own discipline operates). Some theories may be *intended* to work at a coarse temporal scale, positing that foundational assumptions about the nature of reality shape human societies over timespans far longer than a generation. We see no valid reason to dismiss out of hand the possibility that there are processes affecting contemporary climate attitudes that might operate at a temporal scale of centuries to millennia.

With the basic idea explained, we now investigate its implications. First, we believe that attending to temporal scale helps identify a significant misstep in the literature on evangelicals and climate skepticism. Unfortunately, the quantitative literature that uses the Lynn White thesis to explain contemporary evangelicals' climate skepticism would seem to be a prime example of borrowing an idea from another discipline without adequately considering its temporal assumptions. Lynn White, Jr. was a historian, and he clearly understood Christian views of nature to have consequences that

TABLE 1 Temporal scales in research on evangelicals, politics, and climate change

Temporal scale	Example driver of evangelical climate change skepticism	Typical disciplinary source ^a
Days/months/years	Cues from political or religious elites Media coverage (secular or religious media) Weather	Political science, sociology, and communication
Decades	Rise of the religious right Growth of anti-science (anti-evolution) attitudes Popularity of end time beliefs (premillennial dispensationalism ^b)	History
Centuries to millennia	Anthropocentrism Otherworldliness	Religious studies and philosophy

^aThis is not to imply that disciplines operate only at a particular temporal scale, but that work at a particular temporal scale often comes from certain disciplines.

^bPremillennial dispensationalism is a specific kind of end time belief that became popular among evangelicals over the course of the 20th century. Extended discussion can be found in Marsden (1980) and Sutton (2014).

spanned centuries. In his view, Christian teachings about nature played such a foundational role in Western culture that he expected all Americans and Western Europeans of his time to share them (White Jr., 1967, p. 1207). In our terms, then, his theory was operating at a coarse temporal grain.¹² Apparently unfazed by its conceptual timespan of centuries, however, in the 1980s quantitatively oriented social scientists decided to use this theory to explain the environmental attitudes of contemporary US Christians and Jews (Taylor, Van Wieren, & Zaleha, 2016a). Results were ambiguous, but the theory continued to be tested, and eventually came to be applied more narrowly to US evangelicals, as described above. Yet researchers never adjusted the theory to explain how it could account for the empirical finding that evangelicals were less concerned than other Americans who shared the same Western cultural heritage.¹³

Taking these problems into account, we suggest that for assertions about the role of dominion beliefs to convincingly explaining climate skepticism among US evangelicals in the early 21st century, researchers need to establish a mechanism of influence at the decadal or annual scale. This could mean, for example, exploring whether evangelical pastors or other organizations (such as the Cornwall Alliance) have convinced US evangelicals to connect the dominion passage to climate change skepticism. Doing so would be a more temporally convincing application of the basic idea expressed in White's thesis.

A second implication of attending to temporal scale is that it reveals drivers that do not appear to matter at one temporal scale but may nevertheless play a significant role at another. Anti-science attitudes are a good example of this. As Ecklund et al. (2016) showed, creationism was not linked to climate skepticism at the annual scale. Yet the historical literature makes a strong case for its influence at the decadal scale. In the late 1800s, Darwin's theory of evolution presented a stark challenge to traditional Christian teachings about human origins (Marsden, 1980, pp. 3–4, 184–195). Within Protestantism, the controversy over evolution ultimately contributed to a “fundamentalist/modernist” divide, a divide that was tied in interesting ways to the burgeoning US oil industry (Box 2). Those who defended “fundamental” or orthodox Christian teachings fought against “modernist” brethren who called for revising the tradition to harmonize it with science and contemporary biblical scholarship. Fundamentalists attempted to defend their views not only within their denominations, but within society at large, including by passing laws that prohibited the teaching of evolution in public schools. This strategy led to a spectacular public defeat in the Scopes Trial of 1925, which permanently branded the fundamentalist movement, which had been powerful both in the North and the South, as a rural, Southern, anti-intellectual movement rooted in ignorance and bigotry (Marsden, 1980, pp. 184–188; Sutton, 2014, pp. 176–177). After their public defeat, many fundamentalists withdrew from their denominations to build separate institutions, advocating withdrawal from secular society. This isolationist period came to an end in 1942 with the founding of the NAE, an organization founded by white fundamentalists dissatisfied with the movement's tarnished public image and eager for more active engagement in society (Box 2).

Evangelicals' decision to re-engage in society through the NAE was closely connected to their eventual political mobilization, for working across denominational boundaries eventually helped them identify a common cause, that of combatting the ideology of secular humanism, which they believed was destroying America's Christian foundations (Williams, 2010, p. 173). Once the Republican Party began courting evangelical voters, this increasingly placed conservative politicians in the company of creationists (Sheldon & Oreskes, 2017). From the 1980s on, as creationists attacked the authority of professional scientific expertise, conservative politicians cultivated evangelical votes by signaling their shared distrust of science, including (eventually) climate science (Sheldon & Oreskes, 2017, pp. 348, 357). Over the past decade and a half since the release of the ECI, creationist organizations that supported the Christian Right's political agenda have become directly and enthusiastically involved in promoting climate skepticism (Roberts, 2012; Veldman, 2019, pp. 174–178). From this perspective, white evangelicals' climate skepticism appears to be partly an outcome of the long-term social and institutional processes that made creationism a pillar of the defense of Christianity against secularism. This medium-term influence of religion is not visible at the annual (or shorter) timescale, but that does not mean religion has no influence.

A similar shift occurs when we consider the role of evangelical religiosity itself in sustaining climate skepticism. As described above, most quantitative studies found that evangelical religiosity had a weaker influence than politics. Yet, all of these studies adopt a short time horizon; the oldest dataset used in any of these studies was from 2006 (Evans & Feng, 2013; Shao & McCarthy, 2020). A longer view of history shows that in fact religious factors played a major role in white evangelicals' shift toward political conservatism over the course of the twentieth century (e.g., Williams, 2010). This suggests religion should possibly be regarded as a major driver of climate skepticism at the decadal scale.

Over the course of the twentieth century, white evangelical Christians shifted from seeing themselves as the moral guardians of the nation to a persecuted minority (Marsden, 1980; Smith, Emerson, Gallagher, Kennedy, & Sikkink, 1998). The latter perception motivated and was in part a consequence of white evangelicals' political

BOX 2 ENERGY HISTORY

New work in the area of “energy history” is revealing interesting connections between the fundamentalist movement and the oil industry, which may well prove to have implications for evangelicals’ skeptical response to climate change in the 21st century. The fundamentalist movement was boosted by an oil baron named Lyman Stewart, who funded the production and distribution of *The Fundamentals*, the series of pamphlets that gave the Fundamentalist movement its name (Dochuk, 2012, p. 56; Sutton, 2014, pp. 79–113). After World War II, another oilman, J. Howard Pew (chief executive of Sun Oil) launched a vigorous and largely successful nationwide campaign to link faith—especially of the evangelical variety—with free market ideology (Kruse, 2015, pp. 16–22), an important connection given the later links between this ideology and the climate denial movement (Antonio & Brulle, 2011). A conservative Presbyterian businessman and fierce opponent of the liberal establishment, Pew would later fund both Billy Graham’s popular evangelical revivals and Barry Goldwater’s pro-states’ rights and anti-civil rights presidential campaign (Dochuk, 2012, p. 60), which was a critical factor in attracting white evangelicals to the Republican Party. The historian Darren Dochuk (2019)’s book *Anointed with Oil: How Christianity and Crude Made Modern America* breaks new ground in this area, with more work likely to follow.

mobilization, a mobilization that, beginning in the late 1970s, drew evangelicals in increasing numbers to the Republican Party (Schwadel, 2017; Williams, 2010). While not inspired by environmental problems, the environmental consequences of this transformation became clear over the next few decades. As white evangelicals’ ability to realize their political agenda became tied to the success of the Republican Party, evangelical leaders came to adopt many new policy positions favored by Republicans, including, eventually, opposition to action on climate change (Bean & Teles, 2015; Kearns, 2007; Veldman, 2019, pp. 190–214). White evangelicals’ shift toward political conservatism also affected their environmental attitudes in other ways, by increasing their embrace of laissez-faire economic conservatism, for example, which laid the groundwork for opposition to big government solutions, including on climate policy (Grem, 2016; Kruse, 2015; Veldman, 2019, pp. 191–195). As political and economic conservatism came increasingly to be built into white evangelicals’ sense of identity (Bean, 2014), social pressure discouraged evangelicals from expressing concern about “liberal” issues like climate change (Guber, 2013; McCright & Dunlap, 2011; Veldman, 2019, pp. 117–123).

While the combination of religion and politics appears to be powerful in diminishing climate concern, it is important to add that attending to temporal scale—that is, highlighting how the conditions for evangelical climate skepticism have been created over decades—also showcases the dynamism of the evangelical tradition, and its potential to shift in new directions as it engages with new political and cultural moments (Djupe & Claassen, 2018; Steensland & Goff, 2014).

Much more could be said about how drivers of climate skepticism interact at different timescales. But we hope that this brief discussion will encourage researchers to more judiciously integrate findings across timescales. Doing so is important not only for theoretical reasons, but because practically speaking, researchers will be better equipped to address climate skepticism and climate inaction in the US when they appreciate the factors that are driving them across different timescales.

7 | CONCLUSION

Over the past decade and a half, researchers have critically advanced our understanding of how evangelicalism, politics, and climate change interrelate in the US. We believe that examining climate attitudes among evangelicals of color, exploring the influence of religious elites, and appreciating how temporal assumptions differ across disciplines will build on this legacy in important ways.

In thinking about future research, several points stand out. First, internationally comparative research would considerably improve our theoretical understanding of the relationship between evangelicalism and climate attitudes. Second, within the US context, research on “Christian nationalism” (Whitehead & Perry, 2020) may prove useful for understanding the distribution of religiously-inflected climate skepticism beyond the boundaries of evangelicalism.

Finally, it is important to consider how the areas we identified as being in need of research are interrelated. Most pivotally, the demographic transition underway within evangelicalism does not necessarily portend a continued shift toward climate concern; this is because elite efforts to shape lay opinions could easily expand to include evangelicals of color. Underlying all these points is a common thread: evangelicals' environmental views are shaped—in ways that we do not yet fully understand—by their time, culture, history, social location, and racial identity.

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CONFLICT OF INTEREST

The author declares no conflict of interest for this article.

AUTHOR CONTRIBUTIONS

Robin Veldman: Conceptualization; investigation; methodology; writing-original draft; writing-review and editing. **Dara Wald:** Conceptualization; formal analysis; methodology; writing-review and editing. **Sarah Mills:** Conceptualization; data curation; formal analysis; methodology; visualization; writing-review and editing. **David Peterson:** Conceptualization; formal analysis; methodology; writing-original draft; writing-review and editing.

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ENDNOTES

- ¹ For overviews of the research on religions and the environment, see Taylor, Van Wieren, and Zaleha (2016a, 2016b) and Pudlo (2019). On religions and climate change specifically, see Jenkins, Berry, and Kreider (2018), Haluza-DeLay (2014), Veldman, Szasz, and Haluza-DeLay (2012), and Berry (2016).
- ² See, for example Arbuckle & Konisky (2015), which draws on White (1967) or Barker and Bearce (2012), which draws on Guth, Green, Kellstedt, and Smidt (1995).
- ³ The volume of dissertations on evangelicals and climate change suggests a surge in publications is imminent. To avoid scooping work that may soon be published, this section relies on published research (except Larsen, 2001, an older dissertation). In addition to sources cited directly in this section, see also Kearns (2012, 2014); Leduc (2007); and Zaleha and Szasz (2015).
- ⁴ The Cornwall Alliance was originally known as the Interfaith Council on Environmental Stewardship. In 2005, it changed its name to the Interfaith Stewardship Alliance (Wilkinson, 2012, p. 67), before adopting its current name in 2007.
- ⁵ Very little research has addressed how lay evangelicals' environmental views may have been affected by the rise of the Christian Right during the 1980s and 1990s (but see Fowler, 1995; Pogue, 2016; Veldman, 2019, pp. 191–195). More work is needed in this area.
- ⁶ Observers disagree about why the ACES Act failed. Ball (2009, pp. 172–178, 199) suggests that Democrats' attempt to simultaneously advance health care and climate legislation proved unmanageable, but Skocpol's analysis blames climate advocates' inability to build a popular movement (2013, p. 130).
- ⁷ We do not consider the much larger literature on evangelicals' environmental attitudes when climate change attitudes were not measured directly. Field research conducted in the past decade and a half demonstrates that most evangelicals embrace environmental stewardship, often while simultaneously rejecting climate change as a serious problem, indicating that they should be treated separately (Carr, Patterson, Yung, & Spencer, 2012, pp. 289–290; Peifer, Ecklund, & Fullerton, 2014, pp. 381–383; Veldman, 2019, pp. 47–68; Wilkinson, 2012, pp. 86–88). Smith et al. (2017) confirm this point, showing that evangelicals are more consistently negative about climate change than about other environmental issues.
- ⁸ In Smith and Leiserowitz's study, political variables were significantly associated with evangelicals' risk perceptions related to climate change, but in the full model, were not significantly correlated with policy support. This unusual finding probably results from the study's inclusion of numerous climate change attitude and opinion variables in the model, which absorbed much of the variance usually attributed to political ideology.

- ⁹ Studies such as Aasmundsen (2018), Johnson (2012), Nche (2020), Pepper and Leonard (2016), and Smith & Veldman (2020) suggest that there is a wide range of views about climate change in the global evangelical community, rather than the simple pattern of skepticism that is observed when one focuses on white evangelicals in the US.
- ¹⁰ <http://www.blackchurchclimate.org/black-church-climate-statement.html> (no date).
- ¹¹ Atemporal approaches have been heavily critiqued both in religious studies (e.g., Asad, 1993; McCutcheon, 1997) and in the subfield of religion and ecology (Kalland, 2005; Taylor, 2005). As a result, this approach has to some extent fallen out of favor in religious studies. Yet social scientists have nevertheless continued to use theories rooted in this approach to explain evangelical climate skepticism, especially the Lynn White thesis.
- ¹² The literature on the White thesis is too large to engage here, but serious questions have been raised about it. See Taylor et al. (2016a) for a review.
- ¹³ The only explanation that social scientists have given for why contemporary US evangelicals would be affected more than other Christians (that we are aware of) is that they are biblical literalists, and would therefore tend to take the Bible's teachings about dominion more seriously than other Christians. But by the mid-1990s, scholars had already recognized the greater plausibility of drivers that were more temporally proximate (Guth et al., 1995, pp. 367–368).

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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