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1Conservative Protestantism and Skepticism of Scientists Studying Climate Change*

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Conservative Protestantism and Skepticism of Scientists Studying Climate Change

Abstract:

Politicians who proclaim both their skepticism about global warming and their conservative religious credentials leave the impression that conservative Protestants may be more skeptical about scientists' claims regarding global warming than others. The history of the relationship between conservative Protestantism and science on issues such as evolution also suggests that there may be increased skepticism. Analyzing the 2006 and 2010 General Social Survey, we find no evidence that conservative Protestantism leads respondents to have less belief in the conclusiveness of climate scientists' claims. However, a second type of skepticism of climate scientists is an unwillingness to follow scientists' public policy recommendations. We find that conservative Protestantism does lead to being less likely to want environmental scientists to influence the public policy debate about what to do about climate change. Existing sociological research on the relationship between religion and science suggests that this stance is due to a long-standing social/moral competition between conservative Protestantism and science.

Conservative Protestantism and Skepticism of Scientists Studying Climate Change

This paper uses the sociological literature on religion and science to frame an empirical contribution to the literature on the social determinants of belief in climate change. The literature examining the social determinants of believing climate scientists is subdivided into at least five categories: 1) acknowledging the existence of climate change; 2) accepting that humans have caused global warming; 3) believing scientists' claims that global warming is a serious problem; 4) believing that there is scientific consensus on the matter or in the certainty of climate change and the science behind it; and 5) believing scientists proposals for the need to take ameliorative actions to mitigate the effects of climate change. While other social scientists may attempt to address climate change as a comprehensive index of belief (McCright and Dunlap 2011a; Whitmarsh 2011), we are interested in the final two literatures in the list above.

The first literature we contribute to (number 4 above) concerns belief in the conclusiveness of climate scientists' claims. Studies of the social determinants of believing in the scientific consensus concerning anthropogenic climate change show that skepticism is associated with conservative political ideology and Republican party affiliation (McCright and Dunlap 2011b; McCright and Dunlap 2011a), science literacy (Whitmarsh 2011), gender and race (McCright 2010; McCright and Dunlap 2011a). Religion has been examined in many studies, but often in a limited manner and often as only a control variable. There are a few exceptions (McCammack 2007; Wilkinson 2010).

As we will explain below, the only religious group in the U.S. (of a size that allows it to be analyzed with a survey) that could plausibly be a reservoir of skepticism about the conclusiveness of climate scientists' claims is conservative Protestantism (evangelicalism and

fundamentalism) (Evans 2011). While there is no obvious history of conservative Protestants being skeptical of the fact-claims of environmental scientists, there is a history of arguing that scientific claims about evolution are wrong (Numbers 1992), suggesting that conservative Protestants may have a propensity to not believe scientists' statements in general.

The second literature (number five above) concerns the determinants of believing scientists' proposals for the need to take ameliorative action. This literature suggests many forces at work as desire to take political action based on scientists' prescriptions are associated with personal egalitarian values (Leiserowitz 2006), effective media exposure or trust in science media (Leiserowitz 2010; Krosnick et al. 2006; Krosnick et al. 2000), liberal political ideology (Krosnick et al. 2000), personal experience with climate phenomena or belief in personal efficacy (Li, Johnson and Zayal 2011; Kellstedt, Zahran and Vedlitz 2008), and trust in local and national government (Konisky, Milyo and Richardson 2008). Religion has not been the focus of any of these studies.

However, conservative Protestantism may lead respondents to be less likely to accept scientists' policy proposals because conservative Protestants have a history of perceiving themselves to be in moral conflict in the public sphere with scientists over issues like evolution (Numbers 1992; Evans and Evans 2008), and more recently reproductive cloning, reproductive genetic technologies and stem cell research (Evans 2010). This sense of being moral competitors with scientists over public policy may affect conservative Protestants' willingness to have scientists be influential in any public policy issue, including climate change.

U.S. RELIGIOUS GROUPS' CONFLICT WITH SCIENCE

Any discussion of the relationship between religion and science is hampered by the idea

that these institutions are in a state of inevitable warfare – a popular notion that has nonetheless been discredited by historians (Numbers 2007:4-5). Warfare is portrayed as the result of epistemological conflict (Evans and Evans 2008). This claim is that religion and science have fundamentally different ways of making fact claims about the world, and are therefore destined to clash, as they have over Galileo and Darwin. The epistemological conflict theory would predict that to know the age of the earth scientists look at chemicals in rocks and Christians look at the historical record as portrayed in the Hebrew scriptures.

But of course religion in the U.S. is not monolithic, and different traditions have different orientations toward the Enlightenment rationality that underpins the epistemology of modern science. Indeed, many of the current distinctions between U.S. religious groups were forged in the crucible of debates over Enlightenment rationality. Therefore, only certain religious groups could be expected to have any conflict with science at all. (We will limit our discussion to Christianity because religious minorities cannot be analyzed using the nationally representative survey we use in this paper.)

Looking at U.S. religious history, Protestants split in the early 20th century into what are now called mainline Protestants and fundamentalists. The split was largely over engagement with Enlightenment rationality as embodied in scriptural interpretation, such as using historical data to evaluate claims in the Bible, as well as scientific claims, such as evolution (Ahlstrom 1972:Chapter 53). Mainline Protestantism accommodated Enlightenment rationality and therefore modern science and the fundamentalists did not. There is then no history of conflict between mainline Protestants and scientists over scientific or moral claims. Therefore, there is no reason to expect that mainline Protestants would be skeptical of any claims of climate scientists.

Fundamentalism later split with what is now called evangelicalism, which emerged in the 1940s as a compromise between what was seen as the lack of certitude of mainline Protestantism and the rigidity and isolationism of fundamentalism (Smith 1998). Fundamentalists have long been thought to be opposed to how scientists make fact-claims about the world – their epistemology – given fundamentalists’ involvement in opposition to the teaching of evolution, as well as the tradition’s origins in a struggle with mainline Protestants over Enlightenment rationality.

The assumption has long been that fundamentalists use the method of proof-texting an inerrant Bible to make fact-claims about the world (Ellison and Musick 1995:245-46; Greeley and Hout 2006:35-36). If this is true, we would expect that fundamentalism would lead people to be skeptical of the conclusiveness of climate scientists because they do not agree with the scientific method that generated the conclusions. Moreover, it has been fundamentalist Protestants who have been most likely to see themselves in moral conflict with scientists in public debates. Teaching Darwin in the public schools, for example, has been opposed not only because it conflicts with a fundamentalist Protestant interpretation of Genesis, but because it is believed that the philosophical underpinnings of the neo-Darwinist synthesis will teach bad moral principles to children (Evans and Evans 2010). More recently, fundamentalist and evangelical Protestants have also been morally opposed to scientists’ desire to develop certain technologies, like embryonic stem cell research.

Catholicism officially incorporates scientific discovery into its theology, albeit with a time-lag, and modern Catholic leaders have claimed no methodological conflict with science. For example, every pope since Pius XI [1929-1939] has affirmed the autonomy of science (Harris 2002:256-57). Catholicism also has no tradition of biblical literalism, and Catholics rely

on Saint Augustine's idea that "scripture was not to be read as a textbook on nature but as a guidebook to salvation." For example, Pope John Paul II said in 1992 that "in fact, the Bible does not concern itself with the details of the physical world" (Harris 2002:256-57). There is no modern history of Catholic conflict with scientists over truth-claims about the world, so we do not expect that Catholics are disproportionately skeptical of the conclusiveness of climate science. On the other hand, conservative Catholics are like conservative Protestants in their opposition to some of what would be seen as the moral projects of scientists, like embryonic stem cell research and reproductive genetic technologies. They may also then not want scientists to be influential in the public sphere on any issue, including global warming.

Scholars have long considered black Protestantism to be a distinct religious tradition from white fundamentalism and evangelicalism. The relationship between black Protestants and science is ambiguous. On the one hand, they have a similar view of the Bible and theology as do fundamentalists (Greeley and Hout 2006:15). On the other hand, there is no history of black Protestant conflict with scientists. This is probably because black Protestantism has focused on the social plight of many of its members, not on issues of at best indirect harm like orientations to science. In sum, it is only conservative Protestantism that has a history of conflict with science, but it is possible that conservative Catholics also conflict with science over moral debates in the public sphere.

CONSERVATIVE PROTESTANT SKEPTICISM – COMPARED TO WHOM?

The first challenge when examining the social effect of being a member of a religion is to decide who the comparison group is. For example, being a conservative Protestant makes one more disposed to skepticism of climate science, compared to whom? We can usefully follow the literature on conflict between religion and science summarized by Evans (2011). This literature

does not compare levels of belief in science between the committed members of religious traditions. For example, this literature does not compare the percent of committed fundamentalists who are scientists to the percent of committed Catholics who are scientists. The comparison group in this literature is also not the extremely small groups of atheists and agnostics. Rather, the comparison is between the devoutly religious and the religiously indifferent.

A second challenge is determining which aspect of religious experience leads to the effect: participation, identity, belief or practice. Empirical investigations should not simply add variables to models looking for effects, but rather models should be hypothesis-driven. Therefore, we need a theory of religious influence. While we could test to see if religious practices themselves (such as prayer), belief itself (such as Biblical literalism) or identity itself (such as thinking of yourself as evangelical) lead to skepticism of science, these make no sense without a theory of cognitive content that would lead to skepticism. For example, Biblical literalism would only have an effect if literalists are told that the Bible conflicts with science, which occurs only in particular traditions. Similarly, identifying as an evangelical would only have an effect if that meant you were also exposed to evangelical discourse about science. Prayer, belief in the Bible or identity say nothing about science, so if there are religious differences, they come from discourse within a religion. Therefore, we measure participation in the discourse of particular religious traditions (Evans and Evans 2008).

The best approach for representing participation in religiously specific discourse, given the available data, is to create variables demarcating the high attending members in each tradition. The best group to represent the comparison group – the religiously indifferent – is the approximately 40% of the sample (in our coding) who do not actively participate in a religion.

Of course, it is possible that conservative Protestants are disproportionately skeptical of the conclusiveness of scientific claims about climate change or of scientific influence in public affairs not due to their participation in religious discourse, but because they tend to be found among particular demographic groups which are skeptical for non-religious reasons. For example, conservative Protestants are more likely to be both Republicans and political conservatives, both of which are associated with skepticism about climate change (McCright and Dunlap 2011b). Therefore, to determine whether it is participation in religious discourse itself that is associated with views of climate change, a second set of models will control for demographics.

HYPOTHESES

Fundamentalist Protestantism Leading to Skepticism of the Conclusiveness of Climate Science

Republican presidential primary candidates have forcefully articulated both their conservative religious credentials and their skepticism about global warming. While this suggests a possible connection between religious conservatism and rejection of climate science, scholarly studies offer more precise reasons.

Recent empirical examination has shown that the theory of a generalized epistemological conflict between religion and science is incorrect, and there is no conflict between members of religious groups and the religiously inactive population, with a few exceptions (Evans 2011). The exceptions are the very few instances where scientific and fundamentalist Protestant claims differ, such as the origins of humans and the origins of the universe. On these few claims there is evidence that fundamentalist Protestants believe their religious tradition and not science (Evans 2011). There is apparently no problem with inconsistency when accepting the methods used by

science to determine the structure of atoms or how genes function, while simultaneously not believing the scientific consensus about human origins. For example, Evans found that high attending fundamentalist Biblical literalists are just as likely to have a science-related occupation, have been a science major in college, have taken science classes and know uncontested scientific claims about the world than non-participants in religion (Evans 2011).

The question is whether global warming science is the type of scientific claim that fundamentalist Protestants would be inclined to believe (like the structure of atoms) or not to believe (like evolution.) The case can be made for either perspective, which suggests the importance of empirically testing whether fundamentalists are disproportionately skeptical about climate science claims.

On the one hand, Evans only found disagreement about the scientific consensus for claims about evolution and the big bang, which are traditionally thought to be directly contradicted by fundamentalist Biblical exegesis. If a direct contradiction with the Bible is required for disagreement with the scientific consensus, there should be no disproportionate skepticism by fundamentalist Protestants because the Bible makes no claims about climate change. This will be the null hypothesis.

On the other hand, fundamentalist Protestants may have a tendency to not believe any scientific claims that are portrayed as abstract. Late 19th century conservative Protestants were inductive empiricists who thought truth claims could be obtained by very close to the ground observation through one's immediate senses. They were opposed to abstraction, claiming that "the things worth understanding were not particularly opaque" (Toumey 1994:16). Instead, things were as they appeared to be. Truth was self-evident and not complicated, and this meant that "theories, hypotheses, metaphysical thoughts, and other mental complications were

unnecessary” (Toumey 1994:16). This view continues today among conservative Protestants. For example, the intelligent design biology textbook Of Pandas and People essentially makes this distinction concerning abstraction when discussing when students should and should not believe mainstream science (Davis and Kenyon 1989).

While climate scientists may view their work as concrete and immediately observable, that may not be how it is being framed for the public (Corbett and Durfee 2004; Nisbet and Mooney 2007). If climate science has been successfully portrayed by its opponents as based upon theories, speculations or unobservable models, fundamentalist Protestants may put it in the same category as evolution, the big bang and other unobservable “speculations.” It is then plausible that fundamentalist Protestantism may lead people to be more skeptical than others about scientists’ conclusiveness about global warming. Therefore, the first alternative hypothesis is:

H1: controlling for covariates, fundamentalist Protestants will be less likely than the non-religious to believe in the conclusiveness of climate scientists’ fact-claims

To be clear, our data lacks a measure of belief in abstract science. We only have measures of religion and belief in global warming science. The discussion of the history of fundamentalist Protestantism is only to explain why fundamentalists may be more skeptical of global warming science. We cannot conclusively demonstrate that the cause is the precise mechanism described above.

Conservative Protestantism Leading to Opposition to Scientists’ Influence on Public Policy

Fundamentalists and evangelicals may not want scientists to make public claims about what we should do about global warming. In their review of the religion and science literature, Evans and Evans point out that religions are concerned with much more than truth claims about

the natural world. They describe studies that “avoid assuming that religion and science are struggling over truth, but [focus] on religion as an institution with multiple tasks and interests, struggling with other institutions” (2008:98). Put simply, some religious groups want to influence what happens in the broader society, and oppose groups they see as their competitors, like scientists.

The primary locus of struggle historically has been over morality, with some religious groups opposed to what they saw as the moral agenda of the scientific community. For example, in the history of debates over teaching evolution, scientists have talked about “scientific results, procedures, and verifications” but “from the fundamentalists and evangelicals have come protests about the decline of Western morality” (Noll 2002:274). Even William Jennings Bryan, defender of anti-Darwinist fundamentalist perspective at the Scopes trial, was opposed to evolution in part because it “would, if generally adopted, destroy all sense of responsibility and menace the morals of the world” (Bryan, in Noll 2002: 275). Claims about morality are still central to debates about evolution in that the intelligent design movement is centrally concerned about the anti-moral effects of the materialist underpinning of neo-Darwinism (Discovery Institute n.d.). Evans finds evidence of growing moral conflict between conservative Protestantism and science between 1984 and 2010 (Evans 2013).

Similarly, recent debates over embryonic stem cell research appear to be a contest between religiously inspired opponents and scientists who want to engage in this research. Religious actors continue to debate bioethical issues in the public sphere, and it is plausible that religious people see “scientists” as a group competing to influence the public’s morality on these sorts of issues. This later moral clash on bioethical issues has involved fundamentalists, evangelicals and Catholics in the religious right. While this paper is not about Catholicism, it is

possible that traditionalist Catholics may also be skeptical of scientists' involvement in the public sphere.

To understand why it is only fundamentalist Protestants who would be expected to conflict with science over fact claims, but it is both fundamentalists and evangelicals who would be expected to conflict over moral claims, we must explain a few additional features of conservative Protestantism. First, contrary to common understanding, the relatively more theologically liberal evangelicals are more socially conservative than fundamentalists. For example, while 33 percent of fundamentalists agreed that "religion is a private matter that should be kept out of public debates over social and political issues," only 25 percent of evangelicals agreed with this statement (Smith 1998:134). Second, the central cognitive feature of evangelicalism is thinking that you are an embattled minority in a hostile culture (Smith 1998) – a culture perceived as being defined by people such as elite scientists. Third, in one of the few empirical studies on moral competition between religion and science, Evans found that there are larger evangelical effects than fundamentalist effects on wanting scientists to be influential in public debates (Evans 2011:722).

Since the moral conflict between religion and science has primarily been over evolution and issues having to do with the human body, the null hypothesis is that there will be no moral conflict between religion and science concerning climate change because there has not been a public clash on this particular issue. Conservative Protestants would then not be opposed to climate scientists' involvement in public debates. The alternative hypothesis is that both fundamentalist and evangelical Protestants will want to de-legitimize scientific involvement in any public debate, including climate change, so that scientists cannot have an influence on the debates concerning the body that are conservative Protestants' central concern. More formally:

H2: controlling for covariates, fundamentalist and evangelical Protestants will be less likely than the non-religious to believe that scientists should be influential in policy debates about climate change

DATA

Dependent Variables

We use data from the General Social Survey (GSS) (Smith et al. 2010). A question, asked on both the 2006 and 2010 GSS, asks: “The first issue is global warming. Global warming means a trend toward warmer temperatures throughout the world, with more extreme weather in many places and changes in food production that could affect our way of life. Some people believe that the burning of gasoline and other fossil fuels causes global warming. Others say that global warming has purely natural causes. . . How well do the following groups understand the causes of global warming? Environmental Scientists.”¹ The respondents were given a five point scale we recoded so that “1” means “not at all,” and “5” means “very well.” Respondents who believe in the scientific consensus about global warming, that global warming is caused by humans, will think scientists understand the causes of global warming. This is our measure of believing scientists’ claims.

For the second hypothesis we need a question that asks whether scientists should be involved with political debates about global warming. A question asks: “How much influence should each of the following groups have in deciding what to do about global warming? A.

Environmental scientists. Would you say a great deal of influence, a fair amount, a little

¹ It is possible that some respondents understand “environmental scientists” to be “environmentalist scientists.” This would evoke a negative evaluation from political and social conservatives. If this is happening, the controls for ideological and political conservatism in the models should blunt the effect and allow evaluation of the actual relationships we are interested in.

influence, or none at all?” Only three percent of the respondents selected “none at all.” To avoid estimation problems, we collapsed this category into the next, resulting in a three point scale. Three was assigned to “a great deal of influence,” two to “a fair amount,” and one to “a little influence” or “none at all.”

Besides environmental scientists, the survey asked identical questions about the influence of elected officials and business leaders. To insure that the respondent’s opposition to scientists’ involvement in public affairs is not actually opposition to the influence of any elite group in politics, the models control for wanting the other two groups to have influence. Respondents may also not want scientists to influence political debates because they think scientists are wrong about the facts of global warming. Therefore, the model controls for this view using the question about scientists’ understanding global warming described immediately above.

Independent Variables

To test the theories described above, the reference group for the religion variables will be those without a stated preference for any religion or who are very infrequent participants in religious discourse, defined by claiming to attend religious services once a year or less. We then categorized respondents who attended religious services once a month or more as participants in religious discourse and sorted them into dummy variables for each religious tradition using a modification of the RELTRAD scheme used by sociologists of religion (Steensland et al. 2000). RELTRAD divides respondents into conservative Protestants, mainline Protestants, black Protestants, Catholics, Jews, “others” and the nonreligious through denominational affiliation. Since there are so few Jews in the sample, they were combined into the “others” category. We use the question on Papal infallibility asked only of Catholics starting in 2004 to distinguish between conservative and non-conservative Catholics. Making as even a split as possible, we

placed the 61% of Catholic high attenders who believed it was certainly or probably true that “under certain conditions the Pope is infallible when he speaks on matters of faith and morals” into the conservative category, and the 39% with a less certain belief in Papal authority into the non-conservative category.

The other religion group is so heterogeneous that it cannot be substantively interpreted, but is important to have in the model to produce the correct comparison. Similarly, respondents who attend services “several times a year” are between our “non-attending” and “high-attending” groups, and therefore also need to be represented in the model. Since neither of these variables is substantively interpretable, and are only in the model to create the proper specification, for simplicity they are combined into one “other religion/moderate attender” dummy variable.

The epistemological divide between fundamentalist Protestants and the non-religious concerns the few fact claims that are contradicted by a traditionalist literalist reading of the Bible. It is therefore important to account for Biblical literalism in the model. But, if it were included separately it would be indicating the effect of literalism in religious traditions where literalism would not lead to any opposite conclusions from science (e.g. Islam) or traditions where literalism would make you a heterodox member of the religion (e.g. Catholicism). Literalism is a divide within Protestantism, and the people who are most distinct from others regarding science are members of conservative Protestant denominations who are also Biblical literalists. We therefore consider respondents who claim that the Bible “is the actual word of God and is to be taken literally, word for word,” and who regularly attend a church in a conservative Protestant denomination to be fundamentalists. Those who claim that “the Bible is the inspired word of God but not everything in it should be taken literally, word for word,” or weaker statements, but who regularly attend a church in a conservative Protestant denomination,

we will label as evangelicals. By this measure 10% of the respondents are attending fundamentalists and 6% are attending evangelicals. While many of the respondents we code as fundamentalists would call themselves conservative evangelicals, this scheme effectively demarcates literalist and non-literalist conservative Protestants and generally reflects the somewhat less literalist approach of self-identified evangelicals (Smith 1998:23).

Demographic variables that typically co-vary with religion may also predict views of global warming. Therefore, dummy variables were created for gender, African American race, Hispanic ethnicity, southern residence and rural residence (Hamilton and Keim 2009; McCright 2010). Continuous variables for education, age and family income (in thousands of dollars) were also created (Hamilton 2009; Krosnick et al. 2006; McCright and Dunlap 2011a). Missing values for family income were imputed using regression equation imputation in STATA using education, gender, age, race, rural residence, Southern residence and hours worked to calculate imputation values.

Opposition to climate change research is being promoted by ideological conservatives and Republican party activists (Jacques, Dunlap and Freeman 2008; McCright and Dunlap 2000; McCright and Dunlap 2010), and Gauchat (2012) has recently shown that ideological conservatives are less trusting in science. Conservative Protestants are more likely to be ideologically conservative and Republican than others, so we also control for ideology and party identification. For ideology the GSS asks respondents to identify themselves on a seven point scale with “extremely liberal” on one end and “extremely conservative” on the other. Since Gauchat found a non-linear effect of this variable (2012) we created dummy variables. The following responses resulted in being coded as a “Liberal:” “extremely liberal;” “Liberal;” and “slightly liberal.” “Moderate, middle of the road” resulted in being coded as “Middle of the

Road.” “Slightly conservative;” “Conservative;” and “Extremely Conservative” resulted in being coded as a “Conservative.” Respondents who did not know or did not answer were coded as missing. For party identification we use the GSS question that asks: “Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?” The “Strong Democrat;” “Not very strong democrat;” and “Independent, close to Democrat” responses were coded as Democrat. “Independent” resulted in being coded as an “Independent.” “Independent, close to Republican;” “Not very strong Republican;” and “Strong Republican” resulted in being coded as a Republican. Other party, did not know and no answer were coded as missing. Descriptive statistics can be found in Table 1. Models are weighted with the WTSSNR variable (Smith et al. 2010:3103).

Insert Table 1 Here

RESULTS

The dependent variables are ordinal scales, so we used ordered logistic regression. The first column in Table 2 has the “scientists understand global warming” as dependent variable, and the only independent variables are the religion variables. The next column controls for demographic characteristics. Comparing the dummy variables because they have the same scale, we see that the strongest effects for thinking scientists do not understand global warming are for conservatives compared to liberals (-.63) and for republicans (-.47) and independents (-.43) compared to democrats. This is consistent with other research (Gauchat 2012; McCright and Dunlap 2011b; McCright and Dunlap 2011a). Similar sized effects are found for men compared to women and rural residents compared to those who live in other areas. Older people are substantially less likely to believe scientists.

Insert Table 2 Here

More central to the topic of this paper, the fundamentalist variable in the model is not significant. In fact, it is now one of the smallest of the non-significant dummy variable effects, and at -.06 is a small fraction of the size of the party (-.47) and ideology (-.63) effects. This suggests that the conservative Protestant effect in the earlier model is not the result of participation in religious discourse, but that conservative Protestants are older and more embedded in politically conservative and Republican party discourse. Overall, examining the model with controls, there is no evidence for fundamentalist Protestant lack of belief in the conclusiveness of scientists' claims. H1 is not supported.

The first column in Table 3 has the "scientists' influence on public debates about global warming" question as the dependent variable, with religion and non-demographic controls as independent variables. Column two includes demographic controls. Of the non-political control variables, only gender is significant, with men more likely to not want scientists to be involved in public debates. Republicans, but not conservatives, generally have the same perspective as men. Most importantly, for the public influence model the fundamentalist variable is still significant.

Insert Table 3 Here

It is important to note that the remaining fundamentalist effect is not large and is just within conventional significance levels. Moreover, despite expectations, evangelicals are no more likely than the non-religious to oppose scientists' influence over global warming policy debates. Of the substantive variables, fundamentalism has a similar sized effect as being a republican and a male. The largest effects seem to be wanting any elite group to be influential in

public debates and belief in the knowledge claims of climate scientists. However, keeping the size of the effect in mind, there is something about participation in fundamentalist Protestant discourse that leads to not wanting environmental scientists to influence public debates about global warming. H2 is supported for fundamentalists. Existing theory and research suggests this reflects social competition with scientists over morality.

CONCLUSION

Compared to the not-actively religious, fundamentalist Protestants are less likely to believe the conclusiveness of climate science. However, controlling for other demographic properties of the respondent shows that it is not participation in fundamentalist Protestant discourse that causes this effect. H1 is therefore not supported. Likelihood of belief in the conclusiveness of climate science actually seems rooted in age, political conservatism and the Republican party. However, H2 is supported for fundamentalists, which means that there is something about fundamentalist Protestant discourse that leads to being less likely to want scientists to be involved with public policy regarding global warming. Existing scholarship on the nature of fundamentalist Protestantism would suggest that this is social competition with science in the public sphere – often over issues of morality.

For the advocates of policies to limit further warming of the earth, what is to be done? Engaging in education targeted to conservative Protestants to convince them of the certitude of scientific findings is not called for because they are equally likely as anyone to believe scientists' fact-claims. More important targets would be political conservatives and Republicans. However, scientists should consider why fundamentalist Protestants see scientists as competitors in the public sphere, and consider the effect of this competition on policies concerning climate change.

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2Table 1: Descriptive Statistics, General Social Survey

<u>Dependent Variables</u>		<u>Min.</u>	<u>Max.</u>	<u>Mean</u>	<u>SD</u>
Scientists Understand Global Warming		1	5	3.92	1.18
Scientists Should Influence Public Policy		1	3	2.37	.682
<u>Independent Variables</u>					
Fundamentalist Protestant Frequent Attender	0	1	.110		
Evangelical Protestant Frequent Attender		0	1	.060	
Conservative Catholic Frequent Attender		0	1	.067	
Non-Conservative Catholic Frequent Attender		0	1	.040	
Black Protestant Frequent Attender		0	1	.059	
Mainline Protestant Frequent Attender		0	1	.075	
Other Religion/Moderate Attender		0	1	.172	
Age		18	89	47.5	17.2
Education		0	20	13.3	3.18
Woman		0	1	.554	
African-American		0	1	.138	
Hispanic		0	1	.123	
Southern Residence		0	1	.357	
Rural Residence		0	1	.230	
Family Income in Thousands		0	160	54.5	40.9
Year		2006	2010	2007.4	1.65
Ideology = Middle of the Road		0	1	.385	
Ideology = Conservative		0	1	.339	
Party = Independent		0	1	.199	
Party = Republican		0	1	.330	

Table 2: Regression Coefficients. Religious Influence on Scientists Understanding Global Warming

Independent Variables

Fundamentalist Protestant	-0.573* (0.218)	-0.0558 (0.231)
Evangelical Protestant	-0.227 (0.252)	0.0617 (0.261)
Mainline Protestant	0.125 (0.243)	0.0521 (0.241)
Black Protestant	-0.0843 (0.372)	0.126 (0.499)
Conservative Catholic	0.178 (0.235)	0.403 (0.261)
Non-Conservative Catholic	-0.0309 (0.332)	-0.122 (0.376)
Other Religious/Moderate Attender	0.107 (0.156)	-0.0298 (0.168)
Age	---	-0.0144*** (0.00380)
Education	---	0.0136 (0.0275)
Woman	---	0.352** (0.131)
African-American	---	-0.362 (0.292)
Hispanic	---	-0.183 (0.287)
Southern Residence	---	-0.274* (0.134)
Rural Residence	---	-0.365* (0.148)
Family Income	---	0.00418* (0.00179)
Year	---	-0.0601 (0.0341)
Middle of the Road Ideology	---	-0.0115 (0.176)
Conservative Ideology	---	-0.634** (0.193)
Party = Independent	---	-0.427* (0.182)
Party = Republican	---	-0.473** (0.168)
N observations	1315	1250
Pseudo R2	.005	.043

Note: Ordered Logistic Regression Models. Cut-points not shown. Standard error in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

Table 3: Regression Coefficients. Religious Influence on Wanting Scientists to be Influential in Public Debates About Climate Change

Independent Variables

Fundamentalist Protestant	-0.583** (0.196)	-0.411* (0.208)
Evangelical Protestant	-0.526 (0.284)	-0.375 (0.306)
Mainline Protestant	-0.0137 (0.233)	-0.0290 (0.247)
Black Protestant	0.328 (0.330)	0.278 (0.449)
Conservative Catholic	-0.407 (0.292)	-0.300 (0.309)
Non-Conservative Catholic	-0.631 (0.345)	-0.606 (0.349)
Other Religious/Moderate Attender	-0.00370 (0.194)	-0.0105 (0.209)
Scientists Understand Global Warming	0.631*** (0.0655)	0.589*** (0.0688)
Want Influence from Politicians	0.510*** (0.0947)	0.486*** (0.0965)
Want Influence from Business	-0.219* (0.0953)	-0.207* (0.0968)
Age		-0.00216 (0.00426)
Education		0.0123 (0.0286)
Woman		0.426** (0.141)
African-American		-0.0878 (0.335)
Hispanic		0.158 (0.312)
Southern Residence		-0.123 (0.155)
Rural Residence		0.0963 (0.157)
Family Income		0.00188 (0.00184)
Year		0.0170 (0.0366)
Middle of the Road Ideology		-0.177 (0.193)
Conservative Ideology		-0.337 (0.209)
Party = Independent		-0.136 (0.204)
Party = Republican		-0.507** (0.182)
N observations	1,290	1,226
Pseudo R2	.101	.123

Note: Cut-points not shown. Standard error in parentheses. * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).