Jonathan in his recent post and his comments to that post made a big point of emphasizing the importance of science as the basis for action in terms of climate change. He also emphasized his belief that the denial of climate change by leading Republicans in the current campaign is an unprecedented rejection of science (at least since World War II).

I don't disagree with any of Jonathan's points. But I also don't think that science is going to be what (if anything) convinces the vast majority of doubters and skeptics about climate change.

I can think of at least three reasons that appear to motivate skepticism of climate change among conservatives and others. (I don't claim that this is an exhaustive list, but I am very confident that these are important factors.)

(1) A belief that humans cannot possibly have a fundamental impact on nature. This might be because of a belief in the sheer size and scope and power of the natural world, or a belief that God would not allow us to harm the environment, among other reasons. This is a belief with a long history in American and Western culture, and in many ways the rise of the modern environmental movement can be traced to a rejection of the belief in the inexhaustibility of nature. But there are many Americans who still adhere to this belief, both in general and in the context of climate change (including a frequent commentator on our blog). People who adhere to this belief might be open to the possibility that people can cause local environmental harms that should be addressed (e.g., hazardous waste pollution). But climate change is in many ways in fundamental tension with this belief, as it requires believing that humans are having a global impact on weather and climate.

(2) A strong libertarian ideology that emphasizes a certain vision of personal liberty and deep skepticism of most forms of government intervention. Climate change is in sharp tension with this ideology because it requires believing that harm to people around the world is being caused by almost every daily activity that people in a modern industrial society undertake. If that harm justifies government intervention, then there is a rationale for comprehensive government intervention in almost every aspect of modern industrial life. Climate change, in other words, might be deeply threatening to a vision of a very limited state.

(3) There are many people whose livelihoods depend to a great deal (directly or indirectly) on fossil fuel production and consumption. For these people, action on

climate change may result in unemployment or significantly lost income. (Also note that this third group is one that spans both major parties and is more regional than ideological or belief-based – Democrats in West Virginia are just as motivated by this rationale as Republicans in Wyoming.)

What is important to keep in mind here is that – as with any policy-relevant science – there is some level of uncertainty in the science. For instance, there are remaining questions about the role that clouds might play in accelerating or reducing the impacts of greenhouse gases. Each of these groups have different reasons to emphasize and focus on that science: The first group simply disbelieves the science because it conflicts with fundamental philosophical or religious beliefs (just like a significant proportion of Americans still support creationism over evolution); the second group is highly skeptical of the relevant science because that avoids a possibly difficult conflict with their ideological positions; the third group is highly skeptical of the relevant science because it is threatening to their livelihoods.

The question is, would getting more certainty on the science really convince any of these groups about climate change? The higher the stakes of the decision that involves science, the more incentive there is to question or challenge the science. And given the history of the past couple of decades of climate politics, there doesn't seem to be much promise that more certain science will change the terms of the debate.

So what might make a difference? The starting point is to examine why individuals are skeptical. Group two isn't going to be convinced by more certain science; instead, they will be convinced if you can show how climate change doesn't have to lead to (or even significantly increase the risk of) substantially increasing the scope of the governmental leviathan – perhaps by using tools such as a carbon tax, and by arguing how fundamental libertarian principles are consistent with those tools. (Jonathan Adler has been making a lot of these arguments.)

Group three isn't going to be convinced by more certain science; instead, they will be convinced if you can show how action on climate change doesn't have to be threatening to their economic interests and livelihoods. Building up the economic base for clean energy, for instance, might make a huge difference politically – and indeed, I've made the argument that this is a major factor in explaining why Californians defeated Proposition 23 in the fall of 2010 (Proposition 23 would have effectively repealed California's greenhouse gas regulatory statute, AB 32.)

There are other alternatives that others are pursuing. Religious outreach might work for Group one. Key cultural and political figures and leaders might be important in shaping belief-based and ideological positions in Groups one and two (as the Cultural Cognition project has explored). But I'm pretty positive that yet another article in *Science* isn't going to be what makes the difference.