

The politics of science funding: We need to think about science and knowledge production in a more practical light

Government funding of science has become an increasingly prominent issue in the United States. Examining the current debate and its consequences, [Arne L. Kalleberg](#) interviews [Gordon Gauchat](#) about his recent [article](#), “*The Political Context of Science in the United States: Public Acceptance of Evidence-Based Policy and Science Funding.*”



How might your study help us understand the current political debate in the United States over the science of climate change?

The results of the study ultimately show that the instrumental model of public perceptions has serious limitations. The instrumental model essentially claims that promoting science literacy and the dissemination of scientifically accurate information will convince the public about the seriousness of climate change. Not only does the instrumental model misunderstand the problem, I think a lot of scientists believe it to be true. Alternatively, this study suggests a more profound challenge for climate scientists and policymakers, because public apprehensions about science’s authority are associated with deeply held cultural dispositions and identities.



Image credit: Anthropogenic [pollution](#) by Alfred Palmer (Wikimedia Public Domain)

When we look at these results in conjunction with recent work on cultural cognition, not only are cultural dispositions—such as belief in religious authority or free markets—entrenched worldviews, but they also act as interpretive frameworks. In other words, people use these dispositions to access and understand new information, including scientific knowledge. So, appeals to science literacy and expert claims are unlikely to move those segments of the population that climate scientists and policymakers most need to sway.

What are the various positions taken by the current Presidential candidates about the utility of scientific inquiry and research funding? How does your study help to distinguish among these different positions?

Given the results of the study, Republicans and conservatives are more likely to evince skepticism about the role of scientific knowledge in government policy decisions. In fact, conservative Presidential candidates rarely invoke scientific expertise to make claims, because conservatives as a group increasingly appeal to alternative cognitive authorities—religious authorities (i.e., the bible, religious leaders) or economic markets and authorities (i.e., business leaders).

Interestingly, we can see the religious conservatism and laissez-faire conservatism (dispositions) play out in candidates' views on science-related policies. For example, muted and oppositional views toward climate change indicate the laissez-faire disposition. Opposition to vaccine requirements similarly represents an anti-regulatory disposition. At the same time, some candidates have voiced skepticism about the age of the earth and biological evolution, which signifies religious conservatism. Overall, candidates have deployed some or all of these science issues to appeal to the different “cultural forces” within the party. I think the broader question for future research is why scientific authority has become a vehicle for indicating political identity. One possibility is that preferences for different cognitive authorities (i.e., religious, scientific, business leaders) may facilitate the construction of group boundaries and thus identity projects around being “conservative” or “liberal.” The different sources of cultural knowledge people recognize (or trust) thus becomes an important way to demarcate political identities.



Image credit: Roadsign in [Nubra Valley](#), northern [Ladakh](#), India. [John Hill](#) Wikimedia CC BY-SA

What are the implications of your study for the future of government funding of science? In particular, how might your study help explain the debate over restrictions on the funding of political science research by the National Science Foundation?

Government funding for science is likely to be politicized moving forward because “opposition” to funding coheres on the political right. However, disciplines on the periphery of science in the public mind—political science, sociology, and even economics—are the most vulnerable to these challenges. That is, conservatives and liberals also have different views on what “counts” as science—with older male conservatives being especially critical of sociology. So, it is unclear that conservative political leaders would target “science” funding in totality, and instead might restrict funding

to certain disciplines—those without the credibility and social esteem of physics, chemistry, or medical research. Removing programs from the National Science Foundation would be an effective way for conservatives to quickly relegate political science or sociology to a “less than scientific” status, a strategy that would simultaneously appeal to their base of support, alienate strong intellectual adversaries, but not greatly offend the public at large.

How can social scientists—and scientists in general—engage most effectively with the public and policymakers to inform policy?

I think this is the core question for social science in the United States. How do we effectively communicate to the public the importance of our research? First, I think we need to think about science and knowledge production in a more practical light, which can be difficult for scholars entrenched in abstract and specialized fields. We faced similar concerns about the relevance of social science in the early twentieth century, and the pragmatist John Dewey had some interesting answers back then. Overall, he suggested that science should produce and communicate sensible tools that people can use to better understand their social environment. I think this means that we need to think about the “tools” we are providing, and how to make those tools general enough to appeal to as many audiences as possible.



The concrete example for me is sociology’s capacity to provide a set of tools that overcome cognitive biases. For example, we often assume (for the sake of cognitive simplicity) that our current social institutions and norms have always been this way (are stable and natural). This bias might obscure the political struggles and social change that produced our social environment or novel potentialities for reforming it.

Overall, it might be effective for social science to explicitly offer practical tools for orienting social problems and overcoming common biases in perceiving social reality. Here, we do not belittle audiences by positing intellectual deficits or elite manipulation, but identify cognitive limitations common to all humans and how they might undermine our collective actions.

To what extent do you think the explosion of information available on the internet helped to undermine the authority of scientists and reliable scientific evidence?

I think social media and the proliferation of information does play a role. The proliferation of information has increased our exposure to “alternative” points of view, certainly. More importantly, I think technological change has greatly accelerated the sophistication and efficacy of identity projects in our society. That is, identity projects can now proliferate more information, and more importantly, offer analysis of the social world on multiple platforms and in many domains of our lives. At the same time, identities offer frames that help us interpret this glut of information. So, I think the information explosion makes preferences for cognitive authorities and social identities more important than ever, because these social phenomena facilitate the sorting of information.

Do we observe similar political and cultural polarization in attitudes toward science in other developed nations? If not, what might be the source of these divisions in the United States?

Unfortunately, the patterns for other developed nations are somewhat muddy and requires further research. Based on preliminary research I have done on this topic, the United States does appear to have stronger political and cultural divisions in perceptions of science. In fact, outside the United States, I observed more political tension with science on the left. However, the cultural sources of these divisions needs to be examined further.

Why do you think cultural and political ideas about science have begun to merge together?

As I mentioned above, I think identity projects in the United States, especially in the field of politics, are more effective at creating contrasts in multiple domains of social life than they were even 30 years ago, making group boundaries more palpable. There is certainly a lot of money dedicated to this activity and a lot at stake in the formation of political identities. Cultural dispositions about evidence-based policy and science funding are new ways for political groups and cultural dispositions to make distinctions. At the same time, the use of scientific expertise to legitimate government policy has become a key feature of the post-war political apparatus in the United States. So, while our political culture has become more sophisticated in using cultural tastes to contrast “us” from “them,” including trust in science and other authorities, the production of scientific knowledge has become a more prominent object in our social world—something that needs to be accounted for in our environment. This has fused together scientific knowledge, culture, and politics.

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About the Author

Arne L. Kalleberg is a Kenan Distinguished Professor of Sociology at the University of North Carolina at Chapel Hill. He also has adjunct appointments in Business, Global Studies and Public Policy. He has published more than 120 articles and chapters and eleven books on topics related to the sociology of work, organizations, occupations and industries, labor markets, and social stratification. His most recent book is *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s-2000s* (Russell Sage Foundation, 2011). His major current projects include a cross-national study of the causes and consequences of precarious work in a number of Asian and European countries and the role of community colleges in workforce preparation. He served as President of the American Sociological Association in 2007-8 and is currently the editor of *Social Forces*, an International Journal of Social Research.

Gordon Gauchat is an Assistant Professor of Sociology at the University of Wisconsin–Milwaukee and author of the *Social Forces* article “[The Political Context of Science in the United States: Public Acceptance of Evidence-Based Policy and Science Funding](#).” His research focuses on the interaction of public perceptions of science and political and cultural cleavages in the US and Europe. He has published research in *American Sociological Review*, *Social Forces*, *Gender and Society* and *Public Understanding of Science*. In 2012, he received a National Science Foundation Grant to study the cultural authority of science in the general public. His interests also include political-cultural identities, including feminist identification in the general public and the culture meaning of left-right ideological orientations in the US. He is currently studying public perceptions of social science as well as the political legitimacy of climate scientists.

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