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Should Sociologists Stand Up for Science? Absolutely!

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Ruane, Janet M., "Should Sociologists Stand Up for Science? Absolutely!" (2017). *Department of Sociology Faculty Scholarship and Creative Works*. 24.

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Article in *Sociological Forum* · December 2017

DOI: 10.1111/socf.12394

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The Forum

Should Sociologists Stand Up for Science? Absolutely!¹

Janet M. Ruane²

Standing up for science is part of sociology's mission as a social science. Standing up is also consistent with our field's ethical obligation to identify and avoid research compromised by conflict of interests.

KEYWORDS: controversy; politics; power; public opinion; science; trust in science.

In “Out of the Labs and into the Streets: Scientists Get Political,” MacKendrick (2017) asks if sociologists should “stand up for science.” I ask, “How could we do anything but?”

Science is dedicated to finding empirical evidence that serves the search for truth about our world. Sociology, as a social science, is equally dedicated to this task—finding the empirical evidence of the truths about our social reality. If we are not on board with the data-based mission of science, we can't call our discipline a social science.

Perhaps the more discerning question is whether sociology should stand up for science's speaking truth to power. This is, after all, the question that gets us to the heart of the issue: the dustup over mixing science and politics. To be sure, mixing politics and science has always been a risky and, some might argue, foolish endeavor. (Galileo and Einstein offer some prime examples of the backlash that can await scientists who butt heads with power.) But the costs of not speaking truth to power, especially today, may be far too high to endure. The most obvious case in point, of course, is the “debate” over the science of climate change. The failure to respect and listen to the scientific community about the facts of climate change will wreak severe geographical, environmental, social, and economic consequences. The longer we delay, the greater the costs. No society can afford to wait.

A decade ago, a study by the Global Development and Environment Institute at Tufts University estimated the annual cost of *ignoring* climate change at \$20 trillion (Legum 2006). A 2014 report by the Council of Economic Advisers warned that a rise of mean global temps from 2 to 3 degrees Celsius would result in annual

¹*Editor's Note:* This essay is one of six articles written in response to MacKendrick (2017). For other responses, see Brulle (2017), Fisher (2017), Frickel (2017), Shostak (2017), and Whooley (2017).

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additional damages of .9% of global economic output. A rise of temps from 3 to 4 degrees would produce additional annual costs of 1.2% of global economic output (Furman and Podesta 2014). With increasing occurrences of severe weather events and improving scientific research on climate change, the estimates of adaptive costs are doubling and tripling every few years for developing nations. Indeed, a United Nations Environment Programme Report puts the estimate of maximum annual financial needs for developing nations at \$300 billion by 2050 (Dougherty-Choux 2015). Other researchers estimate that economic costs of delayed mitigation will be great for *both* rich and poor nations and project a 23% drop in global incomes by 2100 (Geiling 2015). The Environmental Protection Agency estimates that the United States will see a \$180 billion loss due to water shortages by the end of the century (Davenport 2015).

Our ability to effectively respond to climate change will depend on our willingness to “tap” and trust the scientific community. Consider, for instance, Neil deGrasse Tyson’s recent call for scientists and engineers to figure out how to harness the cyclonic energy of hurricanes in order to “power” affected areas through the storm (Garfield 2017). But trusting science is something we have been less willing to do since the 1960s (Ruane 2017). Polling data tell us that Americans who have a great deal of trust in people running our scientific institutions has held at a relatively low rate (about 40%) since the 1970s. A significant number of Americans today remain skeptical that science is using the “best available data” when it comes to such issues as climate change or genetically modified food (Rainie 2017). (Collins [2014] has argued that this shift in public opinion regarding the superior status of science as a source of valid, trustworthy knowledge can be traced to the publication of Kuhn’s *The Structure of Scientific Revolutions*.) Given these conditions, it is easy to see how society is primed today for the current science/politics battle.

But does sociology have an *obligation* to take a stand in this battle? As MacKendrick alludes, sociology is a field that is already “short” on status in the view of some of the public as well as in the view of some funding agencies. We are often accused of promoting biased, political, or even frivolous research. So do we really want to stick out our necks for a political battle, especially in today’s hyper-partisan environment? Again, I have to say how can we *not* do so? Sociology has a long tradition of studying the many manifestations and dynamics of power. Indeed, we could say that the study of power is in our wheelhouse. The current fake news controversy is just the latest example of how ideas and truth are often the first casualties of power plays. These political battles will be waged with or without us. To be clear, the battle is not so much about science taking on politics as much as it is politics attacking science. For the last several decades, interest groups looking to advance their interests and consolidate their power have elected to do battle with science. Vested interest research is pursued by organizations wanting to “use” science in the service of a mission that is very different from the “truth” mission of science. The vested interest research mission is to *persuade* consumers of information and advance a political agenda. But the scientific enterprise with its inherent skepticism, its reliance on empirical evidence, and its insistence on the public sharing of that evidence has an obligation to assess and challenge vested interest research. Sociology as a social science shares this commitment. And as a discipline,

sociology is also charged with the ethical mandate to avoid and reveal the conflict of interest that is at the heart of vested research. And so, we were well served by those committed to the scientific endeavor when they informed us that early research on the dangers of tobacco (conducted on behalf of the tobacco industry), and early research on the dangers of playing football (conducted under the auspices of the National Football League), or early research on the negative effects of sugar in our diets (funded by sugar trade groups) all fell far short of the essential standards of true scientific research. If science and sociology is not “on the case,” we will be letting the public down. Science and sociology must do its due diligence to gather the empirical evidence needed to set the record straight and continue the mission of building an empirically grounded, trustworthy knowledge base.

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