

## **Because Social Science Fosters Robust and Trustworthy Knowledge**

*By Felice J. Levine, Ph.D., Executive Director, American Educational Research Association December 29, 2017* 

As Chair of the COSSA Board, it is an honor to conclude the inaugural year of "Why Social Science?" with some reflections and aspirations. When COSSA launched this initiative in 2017, the aim was to invite persons to speak to the "Why" of social science from diverse perspectives. By design, the task was left open-ended to encourage commentators to share their stories, views, knowledge, or favorite findings through a lens that could resonate with a breadth of public audiences.

As a social scientist who has now studied the "data," I am struck with how compelling these 22 commentaries (typically no more than 1,000 words and written in non-technical language) are. Notably, only about half of the writers are themselves social and behavioral scientists. Also, important is that contributors were drawn from a range of occupations, roles, and work sectors—Congress, federal agencies, science advocacy groups, higher education institutions, scientific associations, and the leading academies.

It is hard to pick a favorite entry among them, but I was struck by the March 2017 entry from Marcia McNutt, a geophysicist and President of the National Academy of Sciences. She wrote about the importance of examining the social factors essential to saving people's lives in the face of natural disasters. She told her own story of refusing to relocate to a shelter in the face of a Cape Cod hurricane in 1991 and the more horrendous loss of human life in the 2005 Hurricane Katrina disaster, where over half of the deaths were attributable to persons' unwillingness to abandon their pets. McNutt noted that it took the Pets Evacuation and Standards Act of 2006 to meaningfully use social science knowledge to take account of pets in crafting disaster intervention plans.

It takes only one such compelling experience to appreciate the value of the social and behavioral sciences, the importance of robust and rigorous findings, and the necessity of trustworthy knowledge to understand and address the complexities of our personal and social worlds. My own interest in understanding human behavior, social influences and interactions, and societal institutions came also from my lived experience as a post-World War II and McCarthy- and Brown-era child. Why is it that blind obedience to unfair rules, laws, or persons in authority occurs? What are the origins and roots of prejudice? How do the "demand characteristics" of a situation shape how individuals and groups act? What factors can alter patterns of "group think"? What are the conditions that lead to respect for and tolerance of others? To what extent do ascribed characteristics (e.g., where you were born, your demographic background) shape your life chances? What forms of experience and exposure support access and opportunity? What factors lead to people's well-being or, conversely, to outcomes that place them at health or social (e.g., unemployment, suicide, crime) risk?

As is evident in so many of the other commentaries, I found my home in science because it is driven by problems that are perplexing, challenging, or even seemingly too formidable to resolve. In high school at a time when "boys" took four years of math and science and "girls" took two languages and far less math/science, I was fortunate to participate in my senior year in a newly introduced sociology seminar. In addition to reading powerful exemplars of social science—David Riesman's (et al.)

The Lonely Crowd and C. Wright Mill's The Power Elite—we learned the necessity of asking "why?" and using evidence to interrogate questions and produce answers. From Mill's The Sociological Imagination, we further learned about fundamental aspects of the doing of science—to step away from one's own personal experiences or hunches and look at a phenomenon through a broader lens that transcends one's own perspective or belief.

Fast forward five years to my entry into a doctoral program in social psychology that spanned sociology and psychology departments. My interests in the sociology of science, scientific methods, and the ethics of science were further ignited early in my graduate training when science itself was a subject of study. This work included experimental studies of how respondents behaved based on their perceived expectations of their roles and of how expectancy effects of those engaged in research could inadvertently cue research participants or unintentionally introduce other forms of research bias. Just as social scientists were studying the social contexts and conditions that can lead to positive (e.g., donative behavior) or negative (e.g., following orders harmful to others) outcomes, they were also aware that science itself is a social process that can be shaped by the norms and dynamics of the research enterprise.

Even faster forward to this decade, there has been increased attention—both nationally and internationally—to fostering greater transparency in science ("open science"). The scientific community and policy leaders are addressing such issues as the reproducibility of findings, the conditions under which research is replicable (or not), improvements in research procedures (registering hypotheses/research questions, reporting on null results), and sharing research data. Rapid changes in technology, new forms of data, expanded interest in evidence-based policy, or even troublesome cases or practices may account for this expanded and substantial interest.

As far back as 1942, renowned sociologist of science, Robert Merton, addressed the fundamental norms of science—what he called the "ethos of science." Setting forth four principles, he essentially emphasized that science is a communal, cumulative, and iterative process where merit versus position or privilege; transparent procedures, data, and findings; reflective skepticism; and the unbiased advancement of knowledge should prevail. Therefore, from a social science perspective, both the renewed interest in studying the scientific endeavor and the level of self-scrutiny visible in science today are all to the good.

The "Why Social Science?" commentaries published by COSSA in 2017 speak to many substantive issues where social science matters. As a capstone to the first year of this initiative, I would add the social scientific study of the methods, ethics, policies, and practices of science.

Why Social Science? Because the work that social science does in this sphere not only improves the doing of *all* science but also centrally contributes to meriting the public trust.



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