Bringing the World Into Our Science

June 28, 2021

In May, we lost a giant in the field of psychological science. Among his many [field-shaping contributions](), Lee Ross, as his colleagues and students know well, often made the case for getting [more of the science into the world and more of the world into the science]().

Jennifer L. Eberhardt
(Photo Credit: Nana Kofi Nti)

As APS's current president, I am writing my inaugural column with my two colleagues at Stanford SPARQ. SPARQ is a "do tank" that partners with industry leaders and changemakers to reduce societal disparities and bridge social divides using insights from behavioral science. Lee was an affiliate of SPARQ, and his aim of getting more of the science into the world animates our work. Although it does not have to be this way, science often goes with "basic" and the world goes with "applied." From its origins, psychology has straddled and struggled with this basic/applied binary. At SPARQ, we find that this binary often dissolves quickly when researchers and practitioners work in collaboration to address society's most pressing needs. In some cases, the science provides approaches and answers to applied problems. Yet in many cases, the messy real worlds of police departments, classrooms, doctors' offices, and organizational C-suites present basic psychological questions, as well as ways to address them, which in turn can fuel the science. Lee knew this and was especially adamant about the pressing need to get more of these worlds into our science. We write this column in his honor and to forward this case.

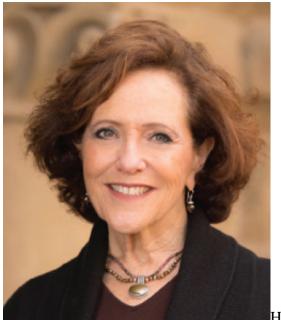**Expert Panel: Policing and Racism, Insights from Psychological Science**

On May 21, APS convened a panel of experts on policing and racism, including Jennifer Eberhardt, to discuss the latest scientific research and share insights into the factors behind racial bias during police encounters. Access the video and transcript here.

In his last, but unpublished, paper, titled "Dissonance Theory Redux: Re-uniting Leon and Lewin," Lee continued to highlight this need. The title refers to how people rationalize their decisions after the fact. It juxtaposes the ideas of Leon Festinger, the originator of dissonance theory, with those of his mentor Kurt Lewin, who created the idea of action research, meaning research that applies psychological principles to the concerns of the day. Reflecting on his time as a PhD student at Columbia University in

the 1960s, Lee pointed out that the significance of dissonance reduction was immediately and widely appreciated by scientists and laypeople alike. Yet, echoing Lewin, he asked why most psychologists avoided applying dissonance to socially relevant issues, why they focused nearly exclusively on dissonance in individuals, and why they stopped short of probing whether and how political, legal, and military actors and powerful advocacy groups rationalized their dissonance-producing decisions and actions during times of major societal turmoil, including McCarthyism, desegregation, and the Vietnam War.

Learn more about Lee Ross, and watch his 2019 interview in Inside the Psychologist's Studio here.

Lee concluded that Festinger and his colleagues knew how large a role dissonance played in contemporary American life (see for example, Riecken, Festinger, & Schachter, 1956). Yet they also knew that modeling the intensity and complexity of the real world would be difficult. They opted instead to simulate milder dissonance-provoking situations in the lab. The result was many well-controlled and clever studies that elaborated and extended dissonance theory. Surely, Lee mused, if these social psychologists had continued to investigate actual contemporary events and actors, they would have elaborated the important phenomenon of collective rationalization and would have come to anticipate how people justify their decisions and outcomes through seeking out the comfort of like-minded peers—something that is now in high relief across the political spectrum. He concluded that if psychologists had endeavored to put more of the world into their science, today we would have better theories and suggestions for the debilitating political divides and the dangerous economic, environmental, and social challenges that threaten the world. We should not abandon the real world for the laboratory but, rather, pursue both tracks.

Hazel Rose Markus

Indeed, the turmoil and pain of the past year and a half shows how terribly urgent our social problems are and how critical a psychological perspective is to forge a path forward. As a global pandemic raged

on, George Floyd's killing in the United States sparked a racial reckoning, and the 2020 election tore a struggling nation even further apart, our students and colleagues repeatedly asked the following question: Does what we do actually matter in the world? Reflecting on Lee's passing and the current state of the field, we are of two minds.

On the one hand, psychologists have been more successful than ever in getting our science into the world. The explosion of books and articles written by psychologists aimed at general audiences has increased exponentially in the past decade or so. From media coverage of psychologists and their ideas—from the news to podcasts to social media—we see that public engagement has been on the rise. Newsletters and online magazines like *Behavioral Scientist*, *Greater Good Magazine*, and *The Conversation* are new channels for spreading ideas. Organizations like APS regularly organize events geared toward journalists and policymakers. APS, in fact, recently introduced researcher spotlights that expose journalists to panels of experts who can speak on topics from hate crimes against Asian Americans and Pacific Islanders to healing police-community divides. Workshops and conferences around the country increasingly offer opportunities for new and seasoned psychologists alike to bolster their science communication skills. Even traditional basic science funders like the National Science Foundation now require substantial evidence of the broader impacts of the research they support. As a result, practitioners across industries are increasingly open to the value of behavioral science and are seeking it out.

Mar Yam Hamedani

At the same time, the field continues to debate the challenges of conducting psychological science that is, from the start, rooted in and inspired by the problems of the world, underscoring the enduring hold of the basic/applied binary. In a recent paper, Berkman and Wilson (2021) contended that most psychological research suffers from a lack of relevance, accessibility, and applicability to addressing societal problems. In a review of 360 articles from the first two sections of the *Journal of Personality and Social Psychology*, they found that only one provided concrete, implementable solutions to a social issue. In another piece, Ellsworth (2021) highlighted the challenges researchers face when conducting research relevant to social issues, especially the risk that their research could be viewed as less rigorous

or foundational and more partisan. Further, given this metascience moment of critical reflection on the field concerning issues of replicability, open science, and racial and gender bias, Lewis and Wai (2021) asked, what can and should psychological scientists be responsibly communicating to the public about what we know? Indeed, the value of scientific expertise as a whole has been under significant threat in the public sphere, in areas where we could use it most—from the coronavirus pandemic to climate change (Hoffman, 2021).

Given these pressures and the harsh spotlight that can fall on researchers who are in the public eye, psychological scientists worry that their research has to be perfect—that they have to have the complete and right answers to the complex questions of the day. Yet many research insights do not directly and neatly provide solutions to the problems at hand. What we know is often not relevant or specific enough to be applied or implemented. Much of "basic" psychological science is still based on laboratory studies (and increasingly online "as-if" studies), often with college students or samples from WEIRD (White, educated, industrialized, rich, and democratic) cultures, studying phenomena that are decontextualized from the real world and real problems. Psychologists also worry that their work will not replicate or be of value if it is not yet field-tested. Or, even if they have tried to field-test their insights, they may have become discouraged by the messiness, complexity, and often substantial time and effort required of trying to do so.

With these challenges in mind, how can researchers get more of the world into our science? One approach is to relax the requirement that we alone should have the answers to sticky, complex problems. We could do more work across disciplinary lines—with economists, neuroscientists, sociologists, political scientists, computer scientists, and linguists—to not only develop more sophisticated understandings of the challenges we face but demonstrate the value of science in addressing those challenges. We should embrace "team science" and the diversity, rigor, and relevance that it affords (see Ledgerwood et al., in press).

There are tangible benefits not only in working with scientists in other fields, but also in working directly in the field where the problems are located and with the practitioners who are there grappling with those problems. When we challenge ourselves to do this, at the very least, we come away with a better understanding of what the problems are that science could be used to solve. In an effort to bring more of the world into our science, APS will soon introduce practitioner spotlights that will expose psychological scientists to practitioners who are closer to the problems that plague us than scientists typically are.

At SPARQ, we have been working hard to put both of these strategies into action, developing partnerships with scientists beyond our field and practitioners beyond our laboratories. For example, since 2014, we have worked with computational linguists and computer scientists at Stanford to analyze police-community interactions during routine traffic stops using body-camera footage. Across the country, tens of millions of U.S. drivers are stopped by police each year. These interactions are consequential. They are the context through which trust is built or eroded on a daily basis. Until now, we did not really have a good way of observing how officers communicate with the public. But with the spread of body cameras, we now have access to how these interactions unfold in real time. The footage from these cameras allows us to look for patterns across many interactions, equipping us to test the extent to which there are differences in the respect officers communicate to Black and White drivers.

We worked with the Oakland Police Department in California to gain access to footage from nearly 1,000 traffic stops conducted by 245 officers and used machine learning techniques to comb through the words officers used during these stops. We found that, even when officers were behaving professionally, they spoke less respectfully to Black drivers than to White drivers: They used more formal titles with White drivers, expressed more concern for the safety of White drivers, and offered more reassurance to White drivers (Voigt et al., 2017). In fact, based on the words officers used alone, we can use a model to predict whether an officer was talking to a Black person or a White person.

Most large law enforcement agencies have body cameras. Yet the vast majority of the footage from these cameras is never examined. How can we expect cameras to serve as an accountability tool when the footage is not analyzed, or even treated as data? This has implications far beyond traffic stops. We can use this footage to examine how no-knock warrants are executed on Black versus White suspects. We can look at how witness statements are taken. We can look at interrogation practices. We can look at training. In fact, after numerous community leaders urged the Oakland Police Department to "do something" after hearing about our findings, executives from the department not only invited us to present the takeaways of our findings to their sworn staff in a training on traffic stops, they also asked us to leverage the footage to evaluate that training. Rather than asking officers whether they liked the training (which is the standard evaluation metric in policing), we are now analyzing footage from those officers to see whether there are observable differences in their interactions with the public, pre- and post-training. This work would not be possible without the partnership of scientists in different disciplines or long-term relationships with law enforcement and the community in Oakland.

Whether we are working with linguists or computer scientists, police departments or community members, teachers or students, business executives or entry-level staff, our work across disciplines and out in the field has helped us to bring more of the world into our science. And the power of this perspective—why this work matters and is sorely needed—is growing in the field. Psychological scientists are increasingly working to establish and scale labs and centers to make it possible for these kinds of research-practice partnerships to operate. Psychological scientists have also been doing pathbreaking work out in the world in government, industry, media, nonprofits, and more. We need to open more channels to learn from them and feed their insights back into the field. We also need to get better at tracking our impact—looking not just at whether our ideas get out into the world but at how they are taken up, what kinds of changes they help spark, and how those changes can be sustained. When considering questions of open science, we also have to ask: open to whom, and for whom (e.g., Grzanka & Cole, 2021; Murphy et al., 2020; Roberts et al., 2020; Salter & Adams, 2013)? What about being open to the world and the communities it is meant to serve?

We fully acknowledge that the work of bringing the world into our science is time-consuming and hard. At a minimum, it requires spending significant time out in the field, learning practitioners' worlds, cultivating relationships, and navigating and negotiating numerous cultural clashes and divides. It involves being humble and curious, listening and learning, and not being discouraged by the messiness

and complexity of the real world. Most researchers are not trained for this type of work. We also recognize that doing this work might not be for everyone or make sense at every career phase. Certainly, much more needs to be done to remake the culture, infrastructure, career opportunities, and reward systems of academia to even make space for bringing the world into our science (see Grzanka & Cole, 2021, for a recent discussion).

Another one of Lee's classic contributions to psychology was demonstrating the underestimated power of people's illusions that they see the world objectively, as it is, while those who have another perspective must be biased, uninformed, or irrational. What we argue here is that you cannot know the other's perspective unless you get much more proximate to it. As we work to get more of our science out into the world, we need to resist the pernicious pull of naïve realism—prodding us to be believe that we can solve the world's problems without the perspectives of practitioners and community members—without getting more of the world into our science. In a recent memorial for Lee, where many of his closest collaborators, students, and friends spoke of how he touched their lives and careers, one of the resounding themes was how they benefitted from his wisdom. We hope this tribute can serve as a call for our science to do the same.

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