

Bringing Science to Society

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Scientific advances seem to be emerging faster than ever before. Today, we can see brain functioning with neuroimaging, and we can measure attitudes that people are not even aware of with implicit association tests. With this knowledge comes even greater risk of scientific findings being misunderstood, distorted, or simply ignored by the public. To avoid this, we ask: How can we best translate scientific findings to the public so that they are understood and not misused? Equally important, how can we get the public to listen to credible scientific data when it conflicts with their core values or deeply-held assumptions?

To address these key questions, Claremont Graduate University gathered a unique group of leaders and policy-shapers for a symposium in May 2007 entitled “Science and the Quality of Life.” Participants offered diverse perspectives on the issues of what has been or can be done to maximize the use of psychological science to make a positive impact on society.

In the opening talk, APS Fellow and Charter Member Alan Leshner, current CEO of the American Association for the Advancement of Science (AAAS) and former Director of the National Institute of Drug Abuse (NIDA) discussed the tension between science and society. According to Leshner, although the public by and large values science and supports scientific investigation, it does not adequately understand the nature of science and its limitations. He called on the scientific community to “move from an attitude of communicating *to* the public to communicating *with* the public.” This involves directly engaging the public at the local level on global issues, including controversial topics such as stem cell research, intelligent design, and global warming. The goal, Leshner explains, is to find common ground with the large portion of people who are undecided on these important issues. Leshner has been leading the way, attending town meetings and writing op-eds in local newspapers.

APS Fellow and Charter Member Diane Halpern, Director of the Berger Institute for Work, Family, and Children, voiced similar recommendations. She highlighted the need for social scientists to develop more effective ways to communicate with policy-makers.

Halpern’s controversial research on sex differences in cognitive abilities and various work and family issues have informed several important political debates on the national level. Informed by her extensive experience working with policy makers and testifying before Congress, Halpern stated, “We have the power to bring evidence, to bring hard data to emotional debates.”

In order for our scientific data to have a positive impact, we must be convincing in our communication with the public and policy-makers. Halpern offered some practical strategies for communicating scientific data: Tell a personally relevant story; don’t flood the audience with too much data; use the language of your audience, not scientific jargon; present data that are appropriate for your audience; and, finally, be prepared to be told that the data you present are just your opinion.

Both Leshner and Halpern said that getting scientific data to the public is an uphill battle, but one that can be won. The remaining speakers testified to that by sharing their experiences in using science to shape policy.

APS Fellow and Charter Member Richard Atkinson, past president of the University of California (UC) system and former director of the National Science Foundation, offered his personal story of how he helped change the country's most widely used admissions test — the SAT.

Based on the evidence from a large study of 78,000 UC student profiles and several small-scale studies, Atkinson believed that the SAT should reflect more rigorous writing and math standards. While president of the UC system, Atkinson presented evidence to the College Board that the writing and advanced math sections of the SAT II were better predictors of college success for students than were the conventional SAT I sections. The College Board, convinced, officially changed the SAT I in 2002.

Bringing science-based knowledge to public policy is difficult but rewarding. In the words of Diane Halpern, “We move in little steps. It’s a slow educative process and it’s going to be cumulative, and it’s going to be something that, indeed, *everyone* has to be responsible for.”

All of the talks from this program can be viewed online at www.cgu.edu/ScienceAndLife.
