

Study Finds Flaw in Surveying Public Opinion About Science

A new CNS-ASU study highlights a major flaw in attempting to use a single survey question to assess public opinion on science issues. The study, published in *Public Understanding of Science*, found that people who say the risks posed by new science fields outweigh the benefits often actually perceive more benefits than risks when asked more detailed additional questions.

When researchers compared the participants responses to the overarching question with their responses to specific questions, they found a significant discrepancy for people who answered the overarching question that risks outweigh benefits. Those same people actually perceived more benefits than risks when given the opportunity to respond to specific questions about risks and benefits.

For example, in the nanotechnology survey, 50 percent of the respondents who said risks outweighed benefits actually evaluated nanotechnology positively in the other portion of the survey. Similar though less pronounced results were found in the biofuels survey.

This analysis suggests that researchers in the area of public attitudes toward science must revisit notions of measurement in order to accurately inform the general public, policymakers, scientists and journalists about trends in public opinion toward emerging technologies. Oversimplified questions can result in misleading poll data that create problems for policymakers who base their decisions on those findings.

Oversimplified questions may also contribute to different polls showing widely differing results, which weakens the public's faith in surveys generally.

Learn more about the study in the CNS-ASU website library:
<http://cns.asu.edu/cns-library/author>



The researchers developed two surveys, one focused on nanotechnology and the other on biofuels. In each survey, respondents were asked an overarching question: do the risks associated with nanotechnology/biofuels outweigh the benefits, do the benefits outweigh the risks, or are the risks and benefits approximately the same? Respondents were then asked a series of questions about specific risks and benefits associated with nanotechnology or biofuels.

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