

To the Editor:

Last Friday, Dr. Lawrence Summers, president of Harvard University and an economist, spoke before a meeting of the National Bureau of Economic Research, about the causes for women's under-representation in science. He suggested that, since fewer girls than boys have top scores on science and math tests in late high school, perhaps genetic, rather than social, differences explain why so few women are successful in these fields.

We would like to respond:

Well-accepted, path-breaking research on learning (see, for example, Bransford, et al., "How People Learn", and Claude Steele's work on "stereotype threat"), shows that expectations heavily influence performance, particularly on tests. If society, institutions, teachers, and leaders like President Summers, expect (overtly or subconsciously) that girls and women will not perform as well as boys and men, there is a good chance many will not perform as well. At the same time, there is little evidence that those scoring at the very top of the range in standardized tests, are likely to have more successful careers in the sciences. Too many other factors are involved. Finally, well-documented evidence demonstrates women's efforts and achievements are not valued, recognized and rewarded to the same extent as those of their male counterparts (see, for example, Virginia Valian's work on gender schema).

As leaders in science, engineering, and education, we are concerned with the suggestion that the status quo for women in science and engineering may be natural, inevitable, and unrelated to social factors. Counter-examples to this suggestion are drawn quickly from the fields of law, and of medical science. In 1970, women represented just 5% of law students and 8% of medical school students. These low percentages have increased substantially in response to social changes and concerted institutional and individual effort. Obviously, the low rates of participation in 1970 were indicative of social, and not genetic, barriers to success.

We must continue to address the multitude of small and subtle ways in which people of all kinds are discouraged from pursuing interest in scientific and technical fields. Society benefits most when we take full advantage of the scientific and technical talent among us. It is time to create a broader awareness of those proven and effective means, including institutional policies and practices, which enable women and other underrepresented groups to step beyond the historical barriers in science and engineering.

Sincerely,

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