

# Are women shunning science?

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In 2005, Harvard University president Lawrence Summers got himself into hot water. Speaking at a national conference on “Diversifying the Science and Engineering Workforce,” the former Clinton treasury official suggested that the relative scarcity of women in science careers might be explained—at least in part—by a gender difference in intrinsic aptitude for the sciences.

Summers mentioned other possible explanations as well, most notably the clash between high-power jobs and family life, but it was his remarks on science ability that grabbed all the attention. Actually, “attention” doesn’t fairly summarize what followed. Summers’ remarks ignited a firestorm of angry dissent—a reaction so intense that it led to a faculty vote of “no confidence” and, ultimately, to the Harvard chief’s resignation.

So where are the women in science and engineering and math? The question remains as politically and emotionally charged as it was five years ago, and it’s still begging for an answer. Even if Summers’ critics are entirely correct—and there is no real evidence that men and women differ in scientific talent—what then is the explanation for the disparity in careers? Is it indeed that the pressures of childbearing and parenting preclude high-intensity careers for women? Is it early socialization and stereotypes? Discrimination at the highest levels of science? All of the above?

Or something else entirely? New research is now pointing to a novel explanation for the discrepancy. According to an emerging theory, there is indeed a gender difference at work, but it is a difference in values rather than ability. What’s more, it’s not that women can’t cut it in math and science; it’s that they reject these fields as too ego and power driven for their sensibilities.

According to Miami University psychological scientist Amanda Diekman, women may be opting out of science careers because they perceive these careers as lacking in communal values like intimacy, altruism and connection with people. If correct, this theory might illuminate another mystery: Why is it that the gender gap has almost entirely disappeared in other demanding careers like medicine and law—but stubbornly persists in science, math and engineering? Medicine is especially puzzling, because it requires the same scientific mastery as careers in research and engineering.

Women embrace communal values more than men, who tend to value individuality and power. That gender difference has been well documented over many years. Diekman and her colleagues wondered if this basic difference in values might shape women’s career choices—leading them away from the lone ranger image associated with laboratory science and toward more nurturing careers. They decided to test this out in the laboratory.

The study was straightforward. They recruited a large group of young men and women from the university’s science classes. They were about 19 years old on average—so just the age to be thinking about career choice. The researchers asked them about their career preferences, and also about their

values and goals—whether they were driven by a desire for power and success or by intimacy and altruism. They also asked them to rate a whole list careers according to these values. Finally, they measured their math and science ability—and their confidence in these abilities.

When they crunched all the data together, the results were unambiguous. [As reported online in the journal \*Psychological Science\*](#), the more strongly the students embraced values like intimacy and human connection, the less interested they were in science and math careers. And these communally oriented students were mostly women. In other words, young women did see science and engineering careers as isolated and individualistic—and what's more, as obstacles to finding meaning in their lives. This was true regardless of their past performance in math and science or their confidence in their ability to succeed in these fields. In short, the women were taking charge of their lives by making a values choice.

Here's the ironic part, though. There is no real evidence that scientists and engineers are selfish loners, nor that scientific work is bereft of spiritual values. Indeed, science and engineering careers could be seen as highly communitarian, since many scientists do dream of improving the human condition. But that's not the perception.

And that's good news, in a way. If science and engineering have a perception problem, perceptions at least can be changed over time. The image of the isolated lone ranger simply needs to be displaced by a new image of the scientist as connected, collaborative and humane—at the earliest levels of schooling.

Wray Herbert's book, *On Second Thought: Outsmarting Your Mind's Hard-Wired Habits*, will be [published by Crown in September](#). Excerpts from the “We're Only Human” blog appear regularly in *The Huffington Post* and *Scientific American Mind*.