Stanford Professor Londa Schiebinger keynotes UN conference on gender, science and technology

Londa Schiebinger presented the keynote address at the United Nations conference on Gender, Science, and Technology 28 September-1 October 2010 in Paris, France. The meeting, co-sponsored by UNESCO, convened a meeting of experts to set the conceptual framework for addressing the pressing issue of increasing women’s access to and decision-making power in science and technology.

Experts from 12 nations, ranging from Fiji, Canada, Kenya, Tanzania, and France, advised UN Women on policies, programs, and approaches to gender equality in science and technology. The policies and programs they identified lay the foundation for recommendations to be drafted for the UN Secretary General and member nations. Working groups treated women’s education and careers, gender issues in technology transfer to the developing world, and gender analysis and innovations in science, knowledge, and technology design.

Schiebinger, the John L. Hinds Professor in the History of Science, wrote the framing paper for the meeting. She reviews the three basic policy approaches to increasing the numbers and women in science and technology (S&T).

The first of these approaches focuses on programs targeting women themselves in order to increase their participation in S&T. The second approach seeks to increase women’s participation by reforming educational and scientific institutions. The third focuses on overcoming gender bias by mainstreaming gender analysis into S&T. These three policy approaches are interrelated: increasing the numbers of women in science and technology will not be successful until institutions are restructured and gender analysis is mainstreamed into knowledge production.

While Director of the Clayman Institute for Gender Research, Schiebinger launched the Gendered Innovations in Science, Medicine and Technology project, focusing on the third approach: knowledge – enhancing excellence by mainstreaming gender analysis into science and technology research. “It is not enough simply to ‘add in’ a gender component late in a given project’s development,” said Schiebinger. “Research must consider gender from the beginning.”

Schiebinger’s paper provides several concrete examples of how sex and gender analysis has stimulated the creation of gender-sensitive science and technology. Each example demonstrates a problem, a method of sex or gender analysis important to overcoming the problem, and solutions, or gendered innovations.

The first example is in technology: Pregnant crash test dummies. The problem is that conventional seatbelts do not fit pregnant women properly, and in the United States of America, 82 per cent of fetal deaths with known causes result from motor vehicle collisions. When a lap
belt is placed over (rather than under) the pregnant belly, force transmitted through the uterus increases three to four-fold.

Solutions to safety testing are emerging from Sweden. Volvo’s ‘Linda’, designed in 2002 by mechanical engineer Laura Thackray, is the world’s first computer simulated pregnant crash-test dummy. ‘Linda’ generates data modeling the effects of high-speed impact on the woman and fetus. Automobile manufacturers, however, have yet to design an alternative to the 3-point seat belt.

Using methods of sex and gender analysis from the beginning would have helped engineers avoid leaving out pregnant women. Schiebinger provides several other examples in her paper, noting also, that when research agendas incorporate issues relevant to women, women are more engaged in conducting the research.

Her conclusions?

Science, Technology, and Innovation (STI) play an important role in development that will only increase in the coming years. It is crucial that gender analysis be mainstreamed into all aspects of this work, including policies, programs, and funding arrangements. It is also important that women’s organizations routinely address science and technology in their work. For both STI policy makers and women’s organizations, the issue may be one of lack of awareness and of training, as relatively few of them have expertise in both S&T and gender issues.

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Note to Editor: Hi-Resolution photo of Professor Londa Schiebinger is available upon request. Please contact Lori Mackenzie at lorim@stanford.edu for files.

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