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> Cover: There are cells in the brain's visual cortex that are tuned to Cover: I here are cells in the brain's visual cortex that are tuned to respond preferentially to environmental features with specific orientations in space, such as a vertical line defined by an edge of an object. Shown here is a color-coded plot of a computer-modeled layer of orientation selective cells. Each pixel is colored according to the preferred orientation of the cells at that position. The legend shows which color corresponds to which cell orientation. (Computer plot: Ralph Linsker/IBM)



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Letters

Looking in the wrong place?

I was puzzled that researcher Camilla Benbow was puzzled at not finding the cause of the "math gap" between the sexes in her study of 200 students ("The 'math gap': Puzzling sex differences," SN: 12/6/86, p.357). Anyone who has followed the acquisition of values by young people in the United States since the 1960s would have sought other sources of the differences in the sexes. In the first place, our young have for the last couple of decades taken their values from outside the home

Benbow would be wise to follow her belief that "the environment is involved somehow in these . . . sex differences," but include studies of how the students spend their spare time and how this might influence their values. She might begin by noting the clear differences in the amount of time young girls spend listening to music (with lyrics that inculcate values) compared with this time for young boys. Another approach would be to examine the normal conversations of each sex for content (things vs. relationships, styles, cars, etc.). Cars, for example, have many quantifiable specifications. Hair and clothing styles have very few.

Starting with the hypothesis that our young mainly take their values from each other and from music, video and movie stars will be more fruitful than looking to parents, the church or the government as influential institutions shaping such characteristics.

James A. Lee Professor of Management College of Business Administration Ohio University Athens, Ohio

Camilla Benbow's conclusion that parental attitudes do not account for sex differences in math ability hardly follows from an examination of questionnaires administered to children.

Benbow and her colleagues did not observe parental attitudes, but only children's perceptions of them, and are entitled to draw conclusions only about those perceptions.

The intellectual leap from there to testosterone is even more spectacular. A study at MIT found that young women who practiced playing video games quickly increased their scores on spatial relations tests. Perhaps from this we can conclude that manipulating a joystick elevates testosterone levels!

William Steele Ithaca, N.Y.

The investigators also assessed parental attitudes, with similar results. Benbow holds that children's perceptions of parents' attitudes are more germane to math achievement than what parents think they are getting across to their kids. No direct causal role for testosterone has been proposed, although the researchers believe that it, as well as unidentified environmental factors, is involved in the "math gap."

- B. Bower

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