Role of Nurture in Spatial Abilities

In matriarchal societies where women receive equal education, there is no difference in spatial abilities between men and women.

Women can be just as good as men at spatial tasks—assuming, of course, they get the same education. According to a new study in *Proceedings of the National Academy of Sciences*, men and women in matriarchal societies where they receive equal education showed equal performance in spatial abilities. The findings suggest that better education in could narrow the gap between the sexes in engineering and technology careers, which require higher levels of spatial reasoning skills.

Researchers at the University of California, San Diego, asked 1,279 villagers from two neighboring North Indian tribes to assemble a four-piece puzzle into the shape of a horse. Amongst the patriarchal Karbi tribe, where males receive on average 4 more years of education, the men solved the puzzle 36 percent faster. But amongst the matriarchal Khasi, who give girls and boys equal education, no gender difference emerged. Better-educated men and women alike solved the puzzle more quickly, with each year of schooling leading to a 4 percent drop in the time it took to solve the puzzle.

The new study suggests that gender differences in spatial abilities are at least partly the result of different rearing and educational practices. It also raises the possibility that improving education in spatial reasoning could reduce the gap in the number of women who study engineering or science-related subjects.