

Culture and 'Spatial Intelligence'

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Men tend to do better than women on tests of spatial intelligence (though you have to watch your tone when you point this out, as the former Harvard president Larry Summers learned). But would the difference persist in a world of educational and professional equality? Or—if women ruled?

Researchers administered four-piece jigsaw puzzles to nearly 1,300 members of two closely related tribes in Northeast India with little to no experience with such puzzles. The twist: One tribe, the Khasi, was matrilineal: Property descends through the youngest daughter and men are forbidden to own land. The other, the Karbi, is patrilineal.

Participants were offered about a quarter of a day's wage if they could solve the puzzle quickly.

In the patrilineal tribe, men were 36% faster at solving the puzzle, on average (42.3 seconds versus 57.2 seconds). But there was no statistical difference in the matrilineal society. Men finished in 32.1 seconds, women in 35.4 seconds.

In the patrilineal society, men attended school longer than women; the researchers chalked up one-third of the gendered performance difference to that fact. But culture, they said, also appeared to play a strong role.

The authors note, at the end of their paper, that their "results do not provide evidence against the role of nature."

(Neuroskeptic offers a couple of objections to the study, including that it "essentially has only two datapoints." But Moshe Hoffman, one of the authors, counters that the study amounts to a natural experiment involving two carefully matched groups: "[T]he Khasi and Karbi have the same means of subsistence, are geographically interspersed, and are genetically close kin. We can be certain that our result is due to cultural differences; we don't need to rely on the law of large numbers to rule out the effect of other differences because there aren't really other differences to rule out.)

Source: "Nurture Affects Gender Differences in Spatial Abilities," Moshe Hoffman, Uri Gneezy and John A. List, Proceedings of the National Academy of Sciences (Sept. 6)