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A Biobehavioral Look at Sex Differences in Bridge

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The June issue of the "Bulletin" had no less than three articles on this topic. In the context of the gender wars of the nineties, the fact that, at the elite level, there is a marked average sex difference in bridge performance, yields many opinions and interpretations. As a non-elite, club player who has recently been involved in sex-difference research of cognitive functioning in both humans and animals (see insert article), I have a few comments to throw into the mix of a topic that raises fascinating questions, but provides no simple answers.

The first and most important point to make is that even when research identifies relatively large average differences between the sexes, those differences are still much less than individual differences among members of the same sex. So, for evaluating bridge skill in any given individual, sex (and other group-related factors like age) is almost completely irrelevant. You can see that this is so by thinking of all elite women players, every one of whom is vastly superior (in a different class) to any club-level player.

This means that anyone who judges an individual's bridge abilities by their sex is engaged in stupid prejudice. Equally, however, any politically-correct (PC) groups or individuals who are offended by findings of robust group sex differences are also not thinking straight, because these findings have no implication at all for assessing individual players. Identity politics, in other words, makes for lousy evaluation.

I also think that all this at least suggests that for competitive bridge events, players should be classified only in terms of their past and current performance. Of course the bridge master-point system is a poor way to measure performance (although it's a great motivational device to encourage many people to play in tournaments). A much more valid ratings system is one that, as in all other games (e.g., chess) and sports (e.g., tennis) that I know, awards negative points for losses as well as positive points for wins. The advent of computers have made this a possibility for bridge, and I'm not surprised to see that Australians like Paul Marston are the first to set up such a working system. People in that country have for a long time been quite realistic about individual differences in sports and games performance. Justification for events restricted to seniors can only be made in terms of comfort, and not in terms of fair competition. Senior events are preferable to many club players because there are fewer esoteric conventions in use, but this sort of comfort criterion can be the only reason for these events. Unlike physically-demanding sports like tennis, the age classification itself makes no sense in terms of fairness. And even though there may be some group-related age differences in performance, individual differences are far more important. Goren in his eighties was certainly far superior to almost all players below forty years of age.

I don't think that the comfort-criterion argument that may hold for seniors can validly be advanced for women. So unless one runs simultaneous events for men (as they do at my Prince Arthur club once a year, when both the men's pairs and women's pairs champions for that year are determined), there's no justification, in my mind, for women-only events in bridge. Mixed-pair events, by the way, are reasonable, as these don't involve unfair discrimination against one sex (i.e., men) or age group (i.e., those less than 55).

Still, even if group sex differences are not relevant for the individual, they are interesting in themselves, and may be relevant (if they are sufficiently marked) to serve as guidelines for those teaching the game. And the way the question is often put is whether the differences are due to "nature" or "nurture". Either answer is silly, because any performance is not only influenced by both, but also by *interactions* among both sorts of influences. But just because an answer is silly, doesn't mean that it is not popular. In the nineteenth century, the predominant position among most "experts" was that only nature mattered, with sayings like "blood is thicker than water" being in vogue. Nowadays, the politically-correct interest groups have argued, using slogans like "sex is only a social construct", that only nurture matters, and that sex differences in performance are due solely to socio-cultural influences. Indeed, the insistence on using "gender" rather than "sex" to refer to these group differences is itself based on this sort of nurture-only thinking. That's one reason why I insist we should refer to sex (rather than gender) differences which are observed independently of how influential nature, nurture, and their interaction, are in producing the differences. Using "gender" when we are really refer to "sex" may feel more comfortable, but it prejudges the nature/nurture issue. It is as prejudicial as the older "blood-is-thicker-than-water" view was.

Another complication with giving simple answers is that it appears that the relative importance of nature and nurture strongly depends also on other factors such as the skill level being examined. For example, group sex performance (to be distinguished from group-sex performance) differences increase as one moves towards the high end of performance in such fields as mathematics and games like chess. The female/male ratio among top mathematicians and grand-master chess players is much lower than among lower-performance groups, and the same is probably true (though to a lesser extent) in bridge. This suggests that nature (biological) influences predominate only at very high performance levels. This makes sense, as biology probably sets limits to what each individual can achieve as a result of learning and experience, but this is very far from asserting that nature only is determinative. But that's not all the complications. Even within the biological and experiential (psychological) categories, there are different sources of influence which *also* can interact with each other to affect performance. On the psychological side (which is my speciality), one has first to distinguish between cognitive and non-cognitive (e.g., motivational) influences, and recognize interactions between these two sorts of influences. So, for example, as one gains knowledge about bridge, one's enthusiasm about the game may increase, and this increased enthusiasm can lead to an increased time spent on learning about the game. On the other hand, as another gains more knowledge, this may lead to a decease of enthusiasm, as that person realizes the enormous gap between themselves and the experts.

Moreover, even within the cognitive category, there may be further important distinctions that determine performance. In the research described in the insert article, we have found that groups that do not differ in cognitive ability, may differ in cognitive style, and these cognitive-style differences can markedly affect performance. In bridge, some situations require the ability to calculate or count, whereas other situations require the ability to simply "see" (or perceive) a particular pattern (e.g., a throw-in play). We drew an analogous distinction for the rats in our watermaze study, where we found that although males and females were equal in cognitive ability, only the females (who were "non-smokers") demonstrated a clear preference for the perceptual, "look-out" cognitive style, and, in the watermaze, yielded markedly different (and superior) performance results when compared to males.

A final complication is that the difference between the top-end performers and the rest may not be just a quantitative difference, but a qualitative one. So at the club, intermediate level any group sex difference that occurs may be due to attentional differences, while at the elite level, they may be due to cognitive ability differences. There's no systematic evidence on this, but I suspect that if a study were done at the club level during competition, women would be found, *on the average*, to spend more time chatting about non-bridge-related issues than men. On the other hand, I would be very surprised if this "chatting effect" sex difference were observed among the top elite players to anywhere near the same extent. Of course this in itself would not be determinative. If no chatting-effect differences were observed anywhere, there could still be differences in the degree to which players were focussed on the game (though this would be harder to assess quantitatively), and such focus-related sex differences could also differ between intermediate- and elite-level players. Only systematic research could throw light on these complex sex-difference issues.

I think all this does show rather clearly that if you want to improve your bridge, concentrate on the various fascinating aspects of the game (aspects that include how to get along with your partner, and when and how to *post mortem* and with whom), and forget about these group sex (so-called "gender") differences. Bridge is complicated enough without having to worry about these other fascinating, but irrelevant, issues.

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