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BOOK REVIEWS

Authors Offer Counterpoints but Field Lacks Proof That Sociopolitical Variables Cause Gender Differences in Cognition

Gender Differences in Human Cognition, by P.J. Caplan, M. Crawford, J.S. Hyde, and J.T.E. Richardson. 1997. New York: Oxford University Press. 182 pp., $19.95 (PB).

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Within the first pages, the authors focus their scholarly energies on verbal, spatial, and mathematical abilities because, we are told, researchers typically have searched for individual differences within such test domains. All four authors provide highly readable 30-page chapters, each taking a variation on the same perspective, i.e., that whatever cognitive differences you thought had been demonstrated between males and females should not be considered biological because (1) cognitive abilities cannot be defined; (2) narrative and meta-analytical reviews have serious limitations as did the research designs of the original studies, and (3) experience, training, expectations, attitudes, preferences, power, status, and domination can influence scores on tests. Knowing the premise in advance sets the reader looking for tight logic and empirical support in favor of the sociopolitical model. Over the past 20 years we all have been subjected to media hype surrounding any claim of biological explanations for sex differences in cognition.

This reviewer found the book's contents highly stimulating and informative, providing both valid and pseudoarguments to reject the very existence of sex differences in verbal, spatial, mathematical, and scientific abilities. John Richardson does a masterly job of tying the chapters together and taking the reader through the pitfalls and limitations of meta-analyses. Hyde and McKinley provided summaries of meta-analytic outcomes up to 1995, including probably the most thorough summary of spatial abilities by D. Voyer, S. Voyer, and the late P. Bryden (1995). The Caplan and Caplan chapter struck the reader as most biased, given their framework of selecting examples of bad science and extrapolating to the entire field. No apologies were made for dismissive inferences such as the following: "We hope that this chapter has illustrated the truly shoddy nature of the research that has been used to justify keeping women out of powerful, influential, and often well-paid positions on the grounds that they lack the intellectual capacity . . ." On the other hand, Dr. Richardson's conclusion in the final chapter was that "the application of meta-analytic techniques has demonstrated reliable gender differences on some measures of speech production (where women tend to outperform men) and some measures of mental rotation, spatial perception, mathematical problem solving, and science achievement (where men tend to outperform women)." He further stated, "There is no evidence that such gender differences are contaminated by any bias in favor of the publication of research studies that report statistically significant findings or by biases in the sampling of test items." Also he warned that obtained gender differences are often contaminated by biases in the recruitment and selection of the participants, and there is no single objective measure of gender differences in any domain or aspect of cognition because of the fact that the existence and magnitude of the differences vary from one task to another within a domain. "Gender differences are typically absent in young children, their magnitude typically increases with age, and, in the same cases, their magnitude has apparently changed over recent decades." Crawford and Chaffin search for the meaning of individual differences within the concept of gender . . . not the politically correct term, *per se*, but the more challenging job of dissecting biological sex from all the other factors to which it is related in our societies. They provide a narrative review demonstrating how gender is a system for organizing relations of power and status. This reviewer, however, did not find evidence in the book that showed a causal relationship between individual differences in cognition and gender-related variables. (The same comment can be made of books favoring a biological viewpoint.)

What this reader would have most appreciated was one more chapter that selected the most methodologically sound studies, that either controlled or experimentally manipulated biological, social/experiential, or attitudinal biases in order to begin to identify which theories can account for

which findings. If sexual dimorphism exists in structures and functions of the brain, do they have anything to do with our abilities or variations in our abilities? How are hormones and/or parental–societal attitudes causal in the expression of cognitive advantages? It is one thing to find fault with current data sets and to generate alternative theories. It is quite another to convince a scientific audience that one's theories are correct and have not been disproved by experiments attempting to do just that. We are not there yet, but perhaps this is a reason to write another book. However, future researchers ignore the message of this text at their peril.

REFERENCE

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