

INTELLIGENCE AND RACE:
FURTHER COMMENTS ON J. P. RUSHTON'S WORK¹

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Summary.—A review of some implications of J. P. Rushton's 1988 and 1990 work on racial differences in brain mass (size or weight) suggests that his comments do not constitute a viable scientific theory.

Rushton (1988) claimed that blacks are less intelligent than Caucasoids as measured by lower average brain weight. Cernovsky (1990) criticized Rushton's emphasis on the brain-weight gap: research by Ho, Roessmann, Straumfjord, and Monroe (1980) shows that the average difference between blacks and whites (about 100 g) was smaller than the average difference between men and women (about 136 g). The latter difference is not known to be associated with a similar difference in over-all IQs. In his reply to Cernovsky, Rushton (1990) stated that corrections for brain/body-size ratio eliminate the gender gap but leave the racial gap intact. However, as already explained by Cain and Vanderwolf (1990), Rushton's emphasis on the brain/body ratio does not include data from comparative neuroanatomy: some species have higher ratios of brain to body weight than humans, e.g., the squirrel monkey or the house mouse. This "asset" does not help them to be intellectually superior.

Shortly after emphasizing the importance of brain/body size ratios, Rushton (1990) himself uses his 1988 arguments based on the brain size *alone* (see Rushton, 1990, Table 2). He lists Pearson r s from 20 studies as evidence for a *direct* relationship of "head size and intelligence." The underlying data are not based on the ratio measures. If the brain/body-size ratio was not emphasized by Rushton only to avoid explaining why women are not intellectually inferior to men despite lower average brain weight, then the measure must be used consistently for *all* cases and Rushton's (1990) Table 2 would then not be pertinent. Or, if Rushton accepts that the brain/body-size ratio is not a relevant measure (as sketched by Cain and Vanderwolf, 1990), then he must account unambiguously for the intelligence of women, given their lower average brain weight. The main point of the present paper is that, for logical consistency, Rushton's theory cannot be *simultaneously* based on Assumption 1 that brain mass (weight or size) is a direct indicator of intelligence and on Assumption 2 that the brain/body-size ratio, not the

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brain mass (weight or size) alone indicates the level of intelligence. Assumption 2 negates Assumption 1. If one of the two assumptions were dropped, Rushton's "theory" would not handle disconfirming evidence, e.g., with respect to either gender- or species-linked differences. Rushton's (1990) argument is not logically consistent.

The present paper dealt only with a small section of Rushton's comments on racial differences. Other aspects of his work have been rejected by others, mainly for methodological reasons (see Cain & Vanderwolf, 1990; Weizmann, Wiener, Wiesenthal, & Ziegler, 1990; Zuckerman & Brody, 1988). One example of this lies in his interpretation of the Pearson r . Interpreting an average r of .18 (see Rushton, 1990, based on 20 r s in Table 2, ranging from .03 to .35) as satisfactory for using brain mass (weight, size, or cranial capacity) as an indicator of intelligence (see also Rushton 1988, Table 1) is not acceptable because this average r value indicates that the two variables share only 3.2% of variance. Even the largest r (in Rushton, 1990, Table 2) would not justify using brain mass (or cranial size) to estimate the intelligence of individuals or groups: the r of .35 implies only 12.3% of shared variance.

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Accepted March 4, 1991.