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COMMENTARY ON « FAMOUS ARTEFACTS »
(P. H. SCHÖNEMANN)

The search for a psychometric left

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With the editors' and Dr. Schönemann's permission, I propose to broaden the scope of my comment on the target paper, leaving it to others to debate the mathematical particulars of Schönemann's broadside against Spearman's hypothesis. Suffice it to say that I find his case compelling, reinforcing the strong impression that Guttman's (1992) classic posthumous paper had already made. There is one statistical point which needs to be explored more fully, however. Although Schönemann appears to be fully correct regarding the Level I interpretation of Spearman's hypothesis, his psychometric derivation of the Level II interpretation depends on the particular method he employs to divide the groups – i.e., dividing them into high and low scorers.

There are other ways to divide groups, and of course Black and White American groups were not created in this way (Loehlin, 1992). It is trivially possible to create two groups in which the mean difference vector is orthogonal to the first principal component or general factor, and group differences such as these are sometimes put to relatively uncontroversial use, as the following example demonstrates.

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A graduate student (Thomas, Oltmanns, & Turkheimer, submitted) was screening undergraduate subjects for a study of obsessive compulsive disorder using the Maudsley Obsessional Compulsive Inventory (MOCI). Preliminary analyses revealed a surprising finding: Black students scored almost a standard deviation higher than White students on several of the MOCI subscales. We wondered whether the race difference could be modeled as a difference in the latent traits that the MOCI scales were presumed to be measuring, or for that matter if the instrument was measuring the same trait in Blacks and Whites. These questions led us to the item bias literature, in which multidimensional item response theory models (Thissen, Steinberg, & Gerrard, 1986), equivalent to logistically transformed factor analysis models (McDonald, 1982), are fit to scales in order to investigate the degree of measurement invariance that may exist among groups taking a test.

Analyses of this kind fit a sequence of increasingly restrictive models on the group data. First, separate factor models are fit in the two groups. For the Washing subscale of the MOCI (measuring compulsive washing and concern with contamination) a two factor model provided the best fit in both Blacks and Whites. Second, the factor loadings (item discrimination parameters) are constrained to be equal in the two groups. Doing so did not produce a substantial reduction in fit. Third, mean structures (item threshold parameters) are constrained to be equal. This step did produce a significant reduction in fit, leading to the conclusion that the race difference in Washing scores could not be modeled as a difference in the latent traits. Although, this example differs from investigations of Spearman's hypothesis along several dimensions, it makes some important points: Carefully specified models of group differences in ability do not lead to foregone conclusions, and can be put to good use in arguing against essentialist accounts of race differences.

These reservations aside, I find myself in general agreement with the target article, insofar as I do not believe that Spearman's hypothesis, confirmed or disconfirmed, tautological or not, has important implications for understanding the origins of racial differences on tests of mental ability. Nonetheless, I find myself unable to concur with the broader implications of the paper. As this paradoxical impression characterizes my response to much of Schönemann's work, and indeed to the work of many others who stand with him, frequently in these pages, in opposition to deterministic or racist interpretations of psychometric research, I offer an exploration of the gradations of disagreement that are available

to those of us who may wish to accept some part of psychometric theory while rejecting the 'scientific racism' (to borrow a derisive term recently self-applied by Chris Brand) that has become all too acceptable in contemporary academic circles.

It is generally considered a solecism to confound explicitly political constructs like 'right' and 'left' with varieties of scientific opinion that are intended to be defended more objectively and disinterestedly, but I know of no other way to characterize the scientific dimension that runs from those who see unitary human ability, along with its biometric, biological and racial correlates, as the single most important factor in individual and social psychology, and those who, like Schönemann, find it utterly irrelevant to the scientific study of human behavior. I certainly claim no knowledge of the political views of Schönemann or anyone else, except for those like Herrnstein and Murray who have committed their opinions to print. Scientific rightists are comfortable using race as an explanatory variable, tend toward single-factor models of ability, would not mind having their views characterized as philosophically reductionist, and accept a moderate to large degree of genetic influence in most human behavior; leftists reject race, at least as a biological variable, support multifactorial views of ability, support more holistic views of the philosophy of science, and are suspicious, to put it mildly, of genetic accounts of behavior. Ultimately, I defend my use of the terms right and left by contending that the reader will know pretty much what I mean.

Schönemann's work is an important part of a literature that is founded on a thoroughgoing rejection of a complex of ideas embraced by school of establishment psychometricians and behavior geneticists under the influence of Galton, Spearman, and Pearson, by way of Burt, Eysenck, and Cattell, and more recently by Jensen. Of course, grouping together such an enormous and varied collection of psychometric theorists only serves to emphasize the differences among them, but that is precisely the point I wish to make: The psychometric establishment includes considerable variability of opinion about issues like single factor models of ability, the quantification of genetic influence, and the applicability of psychometric theory to social issues involving race and poverty. Nevertheless, there can be little doubt that the centroid of this multivariate belief space lies to the right of the scientific and political center. One need only turn to the preemptively titled, « Mainstream Views on Intelligence », published in the Wall Street Journal (of all

places) to get a flavor of the central tenets on which the establishment is able to agree: Intelligence is a meaningful attribute of human beings, well-represented by a single factor called *g*, and substantially heritable; it is an important determinant of social and economic success in America, and contributes to an unknown degree to differences in socioeconomic status between White and Black Americans.

In opposition to the self-appointed mainstream is a radical scientific left that rejects everything about which the establishment agrees. Intelligence is a myth (Schönemann, in press), its factor structure an illusion, its heritability overestimated and probably nonexistent; it contributes to racial and economic differences only by helping to perpetuate the inequitable social structure that produces them. The opposition damns not only the psychometric establishment but all the horses it rode in on: Not only is the single factor model of ability incomplete, factor analysis itself is too deeply flawed to be useful; not only is heritability exaggerated, the very concept is meaningless. All too often, this literature adopts a mocking tone that suggests their opponents are either fools or charlatans (Hirsch, 1981), transparently putting bad science to work in the service of repressive political agendas. In its uniformity, in its sarcasm, in its utter lack of interest in finding points of contact with its opponents, too much of the extant psychometric left can be characterized with a single harsh word: it is reactionary.

The target paper largely avoids this unfortunate tone until the discussion section, when it lapses into *ad hominem* argument (Jensen's 'de-light' in stigmatizing ethnic groups), conspiracy theories about a peer-review system that would allow opposing views to see the light of day, and wholesale dismissals of not only *g* and genetic determinism, but of any psychometric construction of human ability or of any genetic transmission of ability between generations. It is at this point that I, and I suspect many others who might otherwise form the center of a psychometric left, can no longer go along. In order to oppose racist or determinist accounts of behavior, is it necessary to believe that there is simply no such thing as human ability, or that abilities are in no way transmitted between generations along genetic pathways? Assertions like these strain credulity, and play into the hands of a radical right that stigmatizes its opponents (in words, as is always the case, strikingly similar to those used by the radical left) as gullible or dishonest fools whose political doctrines blind them to the obvious scientific facts.

I do not wish to commit the very sin I am deploring. The radical scientific left is – obviously – entitled to its views, and in this increasingly biogenetic era their implacable opposition is often a very necessary tonic. I expect to continue to stand with them, albeit slightly to their right, against the smug unanimity of the Wall Street Journal scientific establishment, and in more urgent rejection of the deeply disturbing racism that has lately taken up a beachhead at the rightmost extremes of scientific respectability. But I also expect to continue to be allied with those who continue to investigate the complexities of human ability and its transmission between generations. It is time that the psychometric establishment had a left wing (Who can doubt that it has a right?) that is willing to share enough of its assumptions to engage it in meaningful debate.

A psychometric left would recognize that human ability, individual differences in human ability, measures of human ability, and genetic influences on human ability are all real but profoundly complex, too complex for the imposition of biogenetic or political schemata. It would assert that the most important difference between the races is racism, with its origins in the horrific institution of slavery only a very few generations ago. Opposition to determinism, reductionism and racism, in their extreme or moderate forms, need not depend on blanket rejection of undeniable if easily misinterpreted facts like heritability, or useful if easily misapplied tools like factor analysis. Indeed it had better not, because if it does the eventual victory of the psychometric right is assured.

REFERENCES

- Guttman, L. (1992). The irrelevance of factor analysis for the study of group differences. *Multivariate Behavioral Research*, 27, 175-204.
- Hirsch, J. (1981). To unfrock the charlatans. *Sage Race Relations Abstracts*, 6, 1-65.
- Loehlin, J. C. (1992). Schönemann on Guttman on Jensen, via Lewontin. *Multivariate Behavioral Research*, 27, 261-263.
- McDonald, R. P. (1982). Linear versus nonlinear models in item response theory. *Applied Psychological Measurement*, 6 (4), 379-396.
- Schönemann, P. H. (In press). On models and muddles of heritability. *Genetica*.
- Thissen, D., Steinberg, L., & Gerrard, M. (1986). Beyond group-mean differences: The concept of item bias. *Psychological Bulletin*, 99 (1), 118-128.