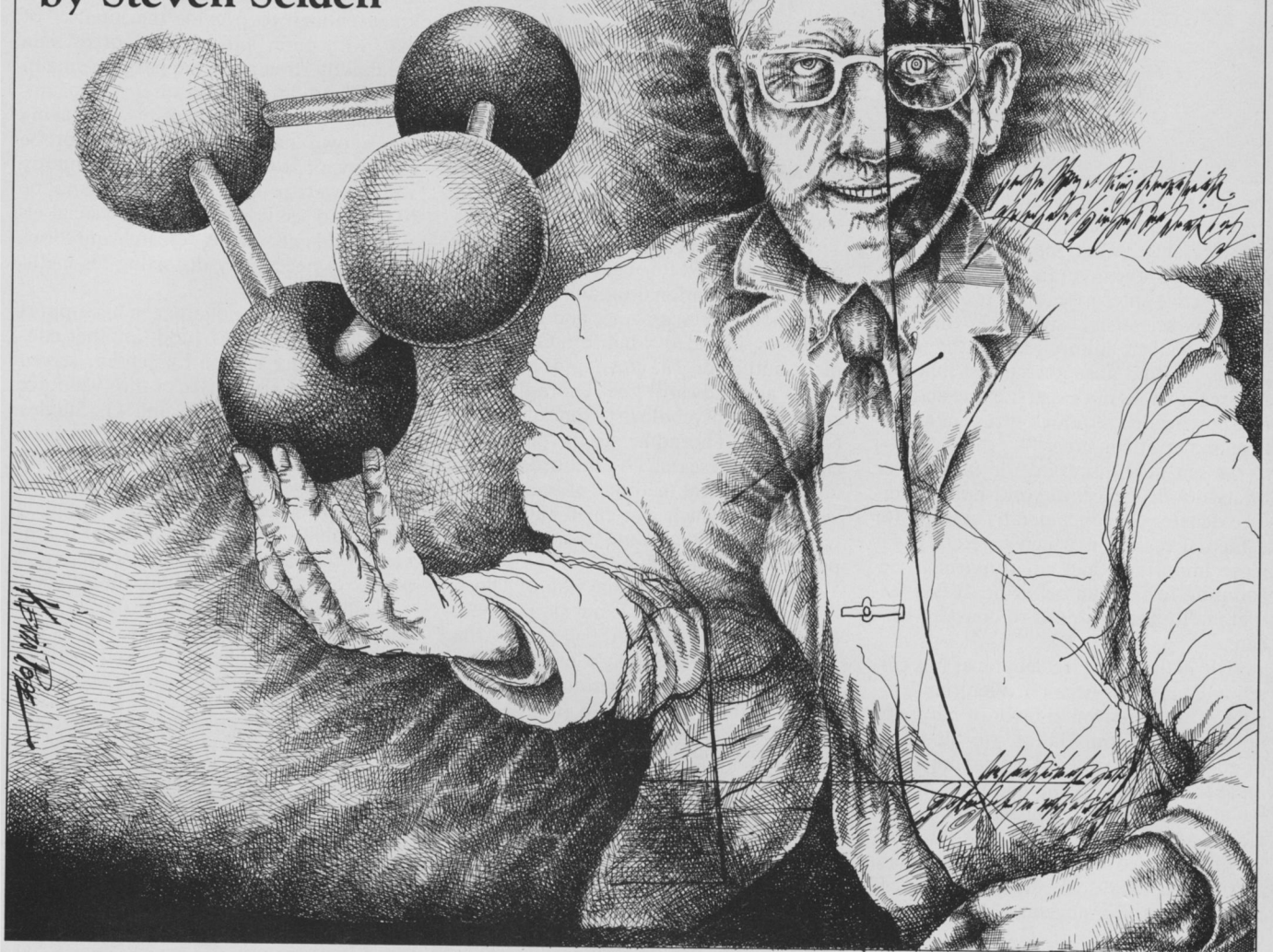


Objectivity and Ideology In Educational Research

by Steven Selden



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The article by Arthur Jensen published in the March 1984 *Kappan* presents a distorted view of reality — provocative, but not compelling, says Mr. Selden. But objectivity and ideology need not be contradictory, he maintains.

IN THE MARCH 1984 *Kappan*, Arthur Jensen proposed that educational researchers need not be “helpless puppets of one social ideology or another.”¹ This can be achieved, he suggested, only when educational research embodies a “Reality Principle.” Jensen maintained that there is a “reality” out there and that it is possible to apprehend it in a clear, undistorted fashion.

Yet distortions are nevertheless possible. Such misapprehensions of reality, Jensen told us, come from the use of a

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Marxist sociology of science, which he rejects as unequivocally wrong. Jensen's article presented what Stephen Gould has identified as "the myth that science itself is an objective enterprise, done properly only when scientists can shuck the constraints of their culture and see the world as it is." Gould does not suggest that factual reality does not exist; it exists and can be apprehended, "though often, in an obtuse and erratic manner."²

Jensen next discussed the importance of nature in the century-old nature/nurture debate. He concluded by arguing for a factual reality in which heredity is far more important than environment in accounting for human behavior. It is a factual reality that we need to consider with care.

The nature/nurture debate, as it is currently conceived, began in Victorian England. It was resolved in favor of nature by Sir Francis Galton. Galton was the father of eugenics, the study of human improvement through the manipulation of heredity, and he actively campaigned for programs of human breeding. His interests, which included statistics, fingerprinting, and mental measurements, were "driven" by his concern for eugenics.³ Indeed, as in the case of Cyril Burt, Galton's ideology appears to have influenced his data analysis.

The cases of Galton and Burt are important for our understanding of the role ideology plays in science. True, their *methods* were distorted by their social interests, but strong evidence suggests that their research *questions* were informed by their social vision as well. We must recognize that choosing to study any topic is necessarily a value choice and a consequence of the interaction of human context and researcher. To ignore this context in a vain attempt to ape the physical sciences is a mistake. Research traditions are, after all, human creations, and we need to understand the role of the human context on the research choices of practicing scientists. Specifically, we need to understand how hereditarian attitudes

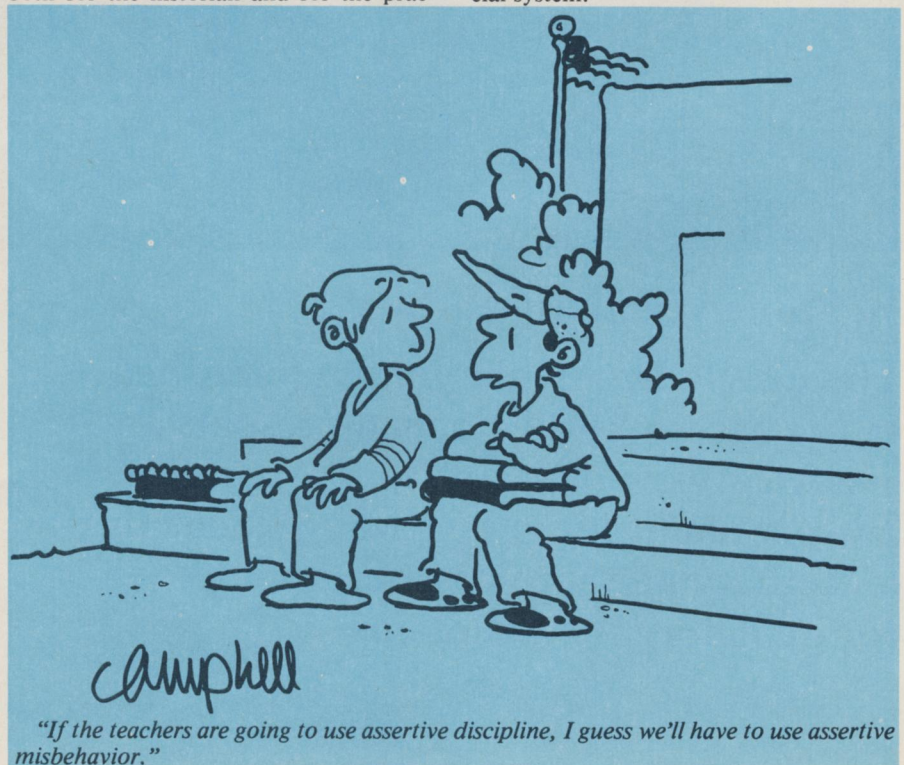
have influenced both the social sciences and educational research.⁴

In America these hereditarian attitudes were popularized through the activities of a number of national organizations. One even took Galton's name, and its charter members included Madison Grant, the racist author of *The Passing of the Great Race*, and Edward Lee Thorndike, the educational psychologist. Indeed, Jensen commends Thorndike as "a pioneer in educational research . . . imbued with the idea that general methods of scientific investigation, which aim chiefly at guaranteeing objectivity, should be applied to the problems of education."⁵

But this is only a partial view of Thorndike the researcher. It is not simply methods — commendable on their face — that are at issue. Thorndike's purposes and motivation are also legitimate concerns both for the historian and for the prac-

ticing researcher. Indeed, *Human Learning*, Thorndike's classic text, concluded with a plea for eugenics: "Of what sort the learners of the future will be, we do not know, but of the possibility of eugenics in intellect and character there can be no doubt."⁶ Although the knowledge of genetics that would make such a program possible was unknown in his time, Thorndike was hopeful about success. "We know enough to provide the intellect of man with purer and higher sources than the muddy streams of the past," he maintained, and "there is no surer way of improving civilization than by improving man's own nature."⁷ One need not be clairvoyant to see that these muddy streams were people. And one need not be Marxist to see how Thorndike's social vision could inform his research questions while not necessarily distorting his methodology.

Thorndike was not alone in his support for eugenics. Charles Judd, another educational leader lauded by Jensen, served on the central committee of the 1928 Race Betterment Conference, and G. Stanley Hall, whom Jensen also praises, has been described as having had an influence "on the whole against the prevalent American conception that education was a remedy for social ills."⁸ "Notwithstanding his conviction that his work was objective, . . ." Merle Curti notes, "[Hall] nevertheless well illustrates the relation of a great educator to the dominant pattern of the society in which he lived, and his unconscious subservience to the existing social system."⁹





If we educational researchers are to retain our intellectual and political independence, we must rethink the meaning of this idealized science.

Values can and do work through individuals, and Judd, Thorndike, and Hall were men of their times. Today's educational researcher needs a critical social science that acknowledges the fact that values inform research choices. Our concept of research must be expanded. As Richard Bernstein notes, "Adequate social and political theory must be empirical, interpretive, and critical."¹⁰ I believe that we can demand no less of our theories of educational research. Jensen's call for research that is empirical is necessary but not sufficient.

MY OWN PLEA — that we broaden our conception of educational research — may not seem convincing. After all, one may argue that the empirical paradigm is adequate. As I noted above, Jensen analyzes the heredity/environment issue as a test of the adequacy of the Marxist sociology of science. Because I have not taken the Marxist position, Marxism will not be on trial here. Instead, I wish to examine whether the evidence on heritability of intelligence is as unambiguous as Jensen and others report it to be. My purpose is not to reject Jensen's approach but to embrace it. Indeed, careful application of the strictures of "objective" science to the research on the heritability of I.Q. is exactly what is required.

Consider, for example, the research that is the centerpiece of Jensen's article. Citing a large-scale study in Russia of twins, Jensen reported a remarkably high heritability of I.Q. The study in question compared identical and fraternal twins. These Russian schoolchildren were given the various subtests of the Wechsler Intelligence Scale for Children (WISC), and the researchers "found a heritability . . . of 0.78 (uncorrected for attenuation)."¹¹ The logic of heritability studies such as this one is straightforward. If pairs of identical twins, sharing the same genetic constitution, have scores that are more alike than those of pairs of fraternal

twins, then the heritability of I.Q. is judged to be high. However, this conclusion is warranted only if certain conditions are met.

The first problem arises with the fraternal twins. Were they of the same sex? The reason for asking this question is that Soviet society may treat youngsters in gender-specific ways. This would distort the comparisons between the WISC scores of the different-gendered twins and those of their identical counterparts.

But, regardless of the gender of the Russian schoolchildren in this study, there are further questions that we need to raise. These were Russian youngsters responding to the various subtests of the WISC, and a number of these subtests must be seen as culture-bound. Thus one would expect knowledge of the "correct" answers to be dependent on socialization in the United States. For example, in one item the test taker is told that he or she has just found an addressed, stamped, sealed envelope. What should the child do? The correct answer, according to the Wechsler manual, is to mail it. I do not know how the average Muscovite might respond to this question, but it is conceivable that another answer could be judged equally appropriate. Unless the WISC has been standardized for Russian youngsters, any alternative answers must lose points. This concern applies equally to items that deal with secret ballots and government inspectors. The social meanings of these phenomena will be quite different in a one-party system that uses the psychiatric profession for state security purposes than they will be in our own.

Thus the empirical findings of the Russian study might be confounded by these technical problems. If these problems cannot be resolved, then the high heritability of the scores will need to be reconsidered. Indeed, Jensen's conclusions, to the extent that they depend on this research, will also be open for reconsideration.

The same applies to Jensen's historical analysis of educational research and political ideologies. He described an

idealized past, peopled with politically neutral scientists, but an equally strong case can be made for viewing our intellectual ancestors as *both* academically able *and* politically committed. We need to better understand how these political views informed their choices of research questions, without making them into ideological puppets — conscious or unconscious. It is not helpful to our contemporary research enterprise to reject, in the name of objectivity, links between the social system and educational research. It is not helpful to reject the sociology of science, mainstream or Marxist; we need to acknowledge both. In this way we can dismiss the work of Cyril Burt, understand the work of Edward Thorndike, and savor the work of George Counts.

Jensen argued that evidence from objective studies of twins can be used to reject a Marxist philosophy of science and to legitimize the hereditarian position in the nature/nurture debate. Neither of these conclusions appears to be supported by the ambiguous and contradictory nature of the data. The Marxists may be wrong, and heredity may have more influence on I.Q. than environment, but the evidence Jensen presented does not successfully make that case. What Jensen has given us is a particular version of reality — provocative, but not compelling. If we educational researchers are to retain our intellectual and political independence, we must rethink the meaning of this idealized science. Then, perhaps, we will come to see objectivity and ideology as complementary rather than contradictory aspects of our work.

1. Arthur R. Jensen, "Political Ideologies and Educational Research," *Phi Delta Kappan*, March 1984, p. 460.

2. Stephen Jay Gould, *The Mismeasure of Man* (New York: Norton, 1981), pp. 21-22.

3. Ruth S. Cowan, "Sir Francis Galton and the Study of Heredity in the Nineteenth Century" (Doctoral dissertation, Johns Hopkins University, 1969).

4. For a consideration of the impact of eugenics on schooling, see Steven Selden, "Biological Determinism and the Roots of Student Classification," *Journal of Education*, Spring 1983, pp. 175-91.

5. Jensen, p. 460.

6. Edward Lee Thorndike, *Human Learning* (New York: Century, 1931), p. 198.

7. *Ibid.*, pp. 199-200.

8. Merle Curti, *The Social Ideas of American Educators* (New York: Scribner's, 1935), p. 424.

9. *Ibid.*, p. 428.

10. Richard J. Bernstein, *The Restructuring of Social and Political Theory* (New York: Harcourt Brace Jovanovich, 1976), p. 235.

11. Hans J. Eysenck, "The Sociology of Psychological Knowledge, the Genetic Interpretation of the I.Q., and Marxist-Leninist Ideology," *Bulletin of the British Psychological Society*, vol. 35, 1982, p. 450. (The Russian twin study is unavailable in English.)

12. For a comprehensive analysis of the conceptual and methodological bases for twin studies, see Leon Kamin, *The Science and Politics of I.Q.* (New York: Wiley, 1974); and Hans J. Eysenck and Leon Kamin, *The Intelligence Controversy* (New York: Wiley, 1981). □