



SPECIAL REVIEW

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Psychology is About People

The Scientific Study of Human Nature: Tribute to Hans J. Eysenck at Eighty. Helmuth Nyborg (Ed.). Oxford, U.K.: Elsevier Science (1997). Hardback. 623 pp. ISBN 0-08-042787-1.

What will psychologists in the next millennium say about the work of Hans Eysenck? Probably only paraphrase the Bard in *Love's Labour Lost* to say that we have "been at a great feast, and stolen the scraps". Or better, that we have just improved upon the recipes for all the best dishes, since a major part of Eysenck's contribution to psychology was to banish from the banquet hall all that spoiled the feast. And some of the tribute to Hans Eysenck will come from those who will not know his name—the countless people who have been helped to live productive lives by the effective and humane treatments developed at the London Institute of Psychiatry. For my own part, as a former student, I can only paraphrase Mark Twain's remark about Rudyard Kipling: "Between us, we know all there is to know about psychology. He knows everything, and I know all the rest." Hans Eysenck will be remembered as the man who made 20th century psychology a science and made its findings available and entertaining to millions around the world.

This beautiful book is a tribute to Hans J. Eysenck on the occasion of his 80th birthday. For six decades, the cogency of Eysenck's logic, tough-minded philosophy of science, and field-encompassing mind, raised him to heroic proportions for those in search of clarity and objectivity in the foggy psychology of the 20th century. To paraphrase Jeffrey Gray's foreword: "The theory and evidence that Eysenck put together are breathtaking in their scope and make up nine-tenths of what anyone might mean, in 1997 as at any time since the early 1950's, by the phrase (the title of one of his most important books), *the biological basis of personality*."

Eysenck was engaged in many controversies during a lifetime of intellectual battles against what he viewed as the loose thinking and pseudoscientific orthodoxies of psychoanalysis and dogmatic egalitarianism. He lived long enough to see himself triumph over many foes (see his reissued and updated autobiography, Eysenck, 1997). As Gray's foreword informs us, there is no doubt Eysenck carried the day against psychoanalysis; the model of cognitive-behavioral psychotherapy he helped create to replace psychoanalysis is now in place throughout the world.

The fact that Fascists and Communists have similar personality structures, once the cause of serious scandal to the liberal left, is also now widely accepted. His arguments, data and theory for the genetic basis of individual differences in personality and intelligence have become mainstream. The particular genes that determine individual variation in these psychological traits are in the test tube waiting to be isolated and the issues thereby resolved.

Nonetheless, the very question of a biological basis for traits such as intelligence continues to provoke hostility in some quarters. "But that cannot be helped," says Helmuth Nyborg in his general introduction, "the question is important". Consequently, he invited several contributors to review the evidence. In one chapter, Arthur Jensen sketches the circumstances in the mid-1930s when Eysenck became familiar with the philosophy and quantitative technology of the 'London School'. Here, towering figures like Sir Francis Galton (Charles Darwin's cousin), Charles Spearman (discoverer of the *g*-factor), and Sir Cyril Burt (Eysenck's Ph.D. supervisor) strove to identify and objectively measure individual differences in mental and behavioral traits. Following Galton, Eysenck believed that the speed and efficiency of information processing is the basis for individual differences in the general factor of intelligence (also known as psychometric *g*). Jensen and many others have now spent more than 20 years testing this hypothesis. The result is clear: speed of reaction and nonspeeded measures of general intelligence correlate from 0.30 to 0.50.

Several contributors update other aspects of the Eysenckian approach to the study of intelligence. Ian Deary examines the speed of information processing approach, Philip A. Vernon discusses evidence from behavior genetics and concludes that IQ scores are about 60% heritable, and Nathan Brody writes about adaptability and change, especially among culturally disadvantaged African American children. Brody concludes that intelligence is malleable, but within the limits of about one-third of a standard deviation, and then only in the case of very intense and enduring preschool intervention.

Most contentious, of course, is the issue of racial differences in IQ. Since the time of mass testing in War World I, U.S. Blacks have consistently scored about one standard deviation (15 IQ points) lower than have U.S. Whites. The controversy has been over whether any of this difference is due to genetic factors. When Arthur Jensen raised the question in his famous 1969 article in the *Harvard Educational Review*, Hans Eysenck stepped into the fray. His 1971 book *Race, Intelligence, and Education* provided a calm and rational analysis. But it was enough that he considered a genetic basis to race differences in IQ as an open question to make him a political pariah. (This was the period when he was physically attacked at the London School of Economics, an attack this reviewer witnessed firsthand as a then graduate student at the L.S.E.).

Richard Lynn takes up the race differences theme in his chapter on 'Geographical Variation in Intelligence'. Going well beyond the confines of the United States, Lynn updated his reviews of the international literature, confirming that 'Mongoloid' populations in East Asia (the Chinese, Japanese, Koreans, etc) average a median IQ of 105, 'Caucasoids' (mainly Europeans) average a median IQ of 100, and 'Negroids' (Black Africans from south of the Sahara) average about 70. An African IQ has proven to be a special point of contention since publication of

Herrnstein and Murray's (1994) *The Bell Curve* brought it to widespread attention. The mean African IQ of 70 is as far below the mean American black IQ of 85 as that is below the mean American white IQ of 100.

Lynn asks whether the race differences are due in large part to genetics and he concludes 'yes' because the same ranking is found when culture-free (reaction time) measures of IQ are used, when the parallel racial differences in brain size are considered, when studies of geographical and race differences in income are controlled, and when studies of transracial adoption of black babies by white parents are examined. Finally, Lynn calls attention to evolutionary explanations, including the cold winters theory and the climatic predictability theory.

One aspect of Eysenck's own view on race and IQ is that vitamin/mineral supplements might alleviate some of the differences (Eysenck, 1991). In his chapter on health psychology, David Nias reviews the history of the attempt to improve IQ using food supplements (although he does not consider the racial aspect). After evaluating some of the studies, he concludes that the evidence seems sufficient to advise people to play safe (like athletes) by adding supplements to their diets, especially when in training or when feeling ill or when not eating properly.

The role of personality in social behavior constitutes another large part of the book. One still wide open question is how many personality dimensions are really needed to encompass individual variation. Chris Brand assesses Eysenck's ambitious attempt to reduce personality to the three super-factors of extraversion, neuroticism, and psychoticism, and in turn to link these to the genotype via specific physiological mediators. He compares Eysenck's approach against Raymond Cattell's 'Big Six' (which includes intelligence), and Paul Costa and Robert McCrae's 'Big Five'. Brand concludes on a contrarian note wondering whether Eysenckian reductionism will ever succeed.

More optimistic in tone is a chapter by Marvin Zuckerman dealing with his own related research on sensation seeking, including the genetics and psychopharmacology of his model (Zuckerman, 1994). Similarly, Jan Strelau and Bogdan Zawadzki examine links between the temperament traits identified by child-oriented researchers and the Eysenckian super-factors of extraversion and neuroticism. Other chapters deal with more specific components of Eysenck's model, including Sybil Eysenck's chapter on the personality disorders and Glenn Wilson's on sex and personality.

As many of the contributors noted, and is perhaps obvious by now, Hans Eysenck was never afraid to propose theories about sensitive matters. One of these, dating back to the early 1950s and leading up to his landmark 1964 *Crime and Personality* book, suggested that crime was partly the result of a genetic disposition toward poor conditionability resulting in an under-socialized, under-conformist individual. This theory had an immense impact on many researchers, among them Adrian Raine who presents Eysenck's theory and some favorable evidence before outlining some of his own work on brain imaging of the prefrontal lobes which he suggests are 'underaroused' in murderers. Also writing a chapter on Eysenck's theory of crime is Gisli Gudjonsson, who is himself a co-author with Eysenck of *The Causes and Cures of Criminality*. Gudjonsson concludes his chapter by asking whether Eysenck's theory has had more success in stimulating research into the causes of crime than its cure.

The 25 chapters of this tome were written by some of the most eminent researchers in the field of individual differences. As Nyborg's introduction tells us, it is a 'tangled web' of topics that has caught Eysenck's interest over half a century. It is therefore possible to provide the reader only with fragments from many well written chapters in this excellent book. Other topics include psychophysiology, genius and creativity, psychopathology, occupational psychology, and even parapsychology. There are also many vivid anecdotes and memories of Eysenck as teacher and mentor, especially in a penultimate chapter by Arthur Jensen.

Following in the footsteps of his own great hero, the legendary Sir Francis Galton, Eysenck has stood firmly in the forefront of the battle to make psychology an integral part of the natural sciences. He has done this by an unflinching insistence that psychology is a bio-social science, that the correlational and experimental sides of psychology must be integrated, and that all ideas require rigorous testing, no matter how 'outlandish', 'politically incorrect', or 'socially dangerous', they appear to their opponents.

Helmuth Nyborg has done the discipline of psychology an enormous service by editing this book. Hans Eysenck was a scientist many of us feel it has been an enormous privilege—indeed, a highlight of our intellectual lives—to know and to work alongside of. He is the most cited living person in the *Social Sciences Citation Index*, for very good reasons. When the future giants of psychology see further, it will be because they will have stood on the shoulders of Hans J. Eysenck.

J. Philippe Rushton
University of Western Ontario

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