

Such detailed examination of certain species and information from allied disciplines will allow us to better document the variation that exists in primate brain structures, and correlate the organizational complexity of the nervous system of any group with the behavior of the group. We can then attempt to answer such questions as: What correlations exist between the brains and the behavior of savannah dwelling baboons, and how do these correlations compare with man? What similarities and differences exist between *Ateles* and *Hylobates*, and how are these correlated? This sort of an approach to similarities and differences should allow us to assess whether or not certain types of behavior are primarily dependent on the increase of neurons "of the same type," or whether a more elaborate reorganization of the nervous system is necessary to incorporate such evolutionary innovations as symbolization and other forms of mental gymnastics.

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HUMAN INTELLIGENCE. Edited by J. McVicker Hunt. 283 pp., figures, tables, bibliography. *transaction books*, New Brunswick, New Jersey. 1972. \$2.95 (paper).

The thirteen articles reprinted in this collection all appeared in "transaction magazine" over the last half dozen years or so. As the editor notes in his brief introduction, "no claim of comprehensive coverage is made," but he does suggest that light will be shed on "a great deal of the domain of human intelligence and competence and the factors which influence it." (p. 3). The nature of the collection amply supports the editor's assessment.

The contributing authors are mostly psychologists and sociologists, and many have some connection with programs for research and training in education. Most of the papers deal with some aspect of the nature of the American public school system. This may seem remote from the area of interest of most physical anthropologists, but there are several reasons why

the material is more relevant than a quick perusal of the titles might suggest.

First, most physical anthropologists in the United States earn their livings as professional teachers in colleges and universities. As such they are continually confronted with the products of the American school system, and it should be of more than passing interest to them to see how these products — their students — have been shaped (warped? mangled??) before arriving at college level. And, furthermore, as pedagogues, most physical anthropologists have learned what passes for teaching technique by osmosis if they have learned anything at all. Few indeed have been taught anything about how to teach. For them and others as well, it should be instructive to read the account by Estelle Fuchs "How teachers learn to help children fail."

This and other papers makes disquieting reading for the professional teacher, the taxpayer and the parent. But possibly of more immediate interest — dare one say "relevance"? — is the recurrent theme which serves to unify this collection of essays. This theme is the recognition of typological thinking and the demonstration of its consequences. Physical anthropologists have increasingly decried the principal of typological thinking in recent years; but few have taken the trouble to trace its origins, and, as a consequence, it continues to flourish in practice, although there are some signs of weakening. Both the study of fossil man and the study of contemporary diversity continue to be heavily influenced by typological thinking in spite of the fact that many of the practitioners have warned against it. Scholars concerned with the development and assessment of living people — psychologists, sociologists and educators — have also been plagued with typological thinking and its consequences. Possibly the most interesting aspect of the book under review is the logical progression which follows the recognition of the problem.

The transmission of typological thinking from Adolphe Quetelet to Francis Galton to Karl Pearson and ultimately to Arthur R. Jensen is presented with admirable clarity in the first essay, by Jerry Hirsch, entitled "Genetics and competence: do heritability indices predict educability?"

Among the many valuable points made in Hirsch's article is his conclusion concerning the coefficient of heritability. After quoting R. A. Fisher who regarded it "as one of those unfortunate short-cuts which have emerged in biometry for lack of a more thorough analysis of the data," Hirsch concludes that "the plain facts are that in the study of man a heritability estimate turns out to be a piece of 'knowledge' that is both deceptive and trivial" (p. 23). Whether we ponder upon the anti-semitism of Francis Galton and Karl Pearson — well documented by Hirsch — or the continuing current of racism in some of recent educational psychology, the tradition of typological thinking enshrined in the metric "objectivity" of *de rigueur* statistics is a plague which equally afflicts physical anthropology as well as the more "social" of the sciences. Hirsch has performed a valuable service in forcing us to face these issues. One can only regret that the sources from which he got his points were not indicated and that no bibliography was appended.

The second article, "The role of experience in the development of competence," by J. McVicker Hunt himself, is no less valuable than the one by Hirsch. While many anthropologists are aware of the controversies currently surrounding the attempts to test human mental capacities, not so many are aware of the historic roots of the present disagreements. Binet and Simon, who developed the techniques which the intelligence testing movement employs, denied that intelligence was a fixed quantity. The testing movement, however, took its intellectual framework from Francis Galton and, later, G. Stanley Hall who regarded intelligence as irrevocably fixed by heredity. Chapter by chapter, the remaining essays in Hunt's book demonstrate the iniquitous social consequences which stem from this rigid and fallacious piece of typological thinking. Both Hirsch and especially Hunt stress the interaction between the developing organism and its environment in the eventual production of its intelligence phenotype, and both, but especially Hirsch, decry the extreme environmentalist as well as the extreme hereditarian interpretations.

Among the remaining essays, the ones which are of particular interest include the ingenious demonstration by M. A.

Wallach and N. Kagan that the occurrence of intelligence and creativity are completely random with respect to each other. The most detailed and explicit demonstration of the tragic results of applying the Galtonian assumption of human potential as a genetically fixed entity, however, is to be found in the brilliant articles by Ray C. Rist, "The self-fulfilling prophecy in ghetto education," and by Walter E. Schafer and colleagues, "Programmed for social class: tracking in American high schools." Many people, whether anthropologists or not, are less than happy with the educational system, but these articles present a damning and undeniable indictment of that very system. They show how the fixity of potential assumptions, applied right from kindergarten through high school, not only prevent learning but also, by denying equality of opportunity, reinforce the racial and social class inequities which characterize present-day America.

The volume shows some signs of haste in editing. The introduction provides no hint of the theme which gives this collection a unity that is quite unusual for an edited book of readings. And the date of original publication is not mentioned for three of the articles while lists of suggested readings are missing for five of them. More annoying is the fact that several articles contain intriguing facts without citation, or mention authors or sources in the text that are not included among the readings suggested at the end of the article.

With the current surge of interest in the heritable aspects of intelligence, those who teach courses dealing with race and/or human biological capacities might well consider this as a supplement to their basic text. The lack of any articles dealing with Black English or recent research on brain physiology may be considered a drawback, but the general readability and surprising cohesion make it an attractive consideration.

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THE FACE IN GENETIC DISORDERS. By R. M. Goodman and R. J. Gorlin. xii + 169 pp., figures. C. V. Mosby, St. Louis. 1970. \$19.50 (cloth).

One of the major developments within