

man, woman and child, is a genius at something as well as an idiot at something'. One should aim at an education which would enable the individual to follow his bent; and the exceptionally versatile child should not be compelled, as now, to limit the field of his studies at an early stage. 'I do not believe that a recognition of the inequality of man would be a blow to democracy (or rather to representative government based on universal suffrage).' Perhaps the wisdom of the biologist will one day inform the councils of the social scientist!

ELIOT SLATER.

I.Q. TEST PERFORMANCE

Intelligence and Cultural Environment. By PHILIP E. VERNON. London: Methuen and Co. Ltd. 1969. Pp. 264. Price 45s.

The controversial nature of cross-cultural differences in intellectual ability that may exist continues to promote excited discussion, not all of which is very informed. Nobody bothers to define what they mean by intelligence; few, if any, consider that inferiority in some abilities may be a cultural asset. The author has made a refreshing attempt in this book to dispel some of the obscurity surrounding this important topic.

The contents fall into several major parts. In parts I and II, Vernon elaborates on Hebb and presents his notions of intelligence A, B, and C (genotypic, phenotypic, and as measured by tests, respectively), reviews the literature, and discusses factors influencing the mental development of children. Throughout these sections, detailed and comprehensive discussion of relevant sources is presented in an economical style which is impartial and easy to read. In part III, the author considers the application of tests to non-Western cultures, and provides a most useful scheme for conceptualizing factors affecting test performance. He has described such factors as extrinsic or intrinsic. Extrinsic factors include such things as inability to understand instructions, difficulty in making responses correctly because of the use of complex scoring techniques such as computer-scored multiple choice, and inability to understand the relevance of time in a speed test. The importance of such factors in affecting test performance of even non-immigrant children in the psychiatric clinic has almost certainly been under-estimated in the past and probably still is in many places at present. All clinical psychologists and all psychiatrists who interpret and act upon test results, could do worse than to copy a list of these factors and keep it well in sight.

Parts IV and V deal with the author's own studies, in which he selected a battery of cognitive tests and administered them to 100 English and 40 Hebridean children, and later to carefully selected samples of 40 to 50 children each from Jamaica, Uganda, Canadian Eskimos and Canadian Indians. All subjects were boys aged 11 years. These parameters were chosen because the author considered that addition of girls would have complicated the analysis; the age of 11 was selected because most pupils have acquired moderate skill with English by then in all the samples studied, and are nearing the completion of their primary schooling.

In each case, results are presented to highlight the patterns of abilities shown in different cultures rather than to emphasize the general superiority of one group over another. The attempt is made to relate cross-cultural differences in patterns of ability to the social and psychological characteristics of each culture.

Vernon concludes by suggesting that the results imply a list of some eighteen factors to be relevant to poor test performance. These include extrinsic factors, such as unfamiliarity with test conditions, or test anxiety, which affect intelligence C. Factors such as birth injury, malnutrition, linguistic stimulation in early childhood, absence of magical beliefs, are suggested as affecting intelligence B, and genetic factors are, of course, implicated for intelligence A.

The author's final words strike a somewhat pessimistic note in suggesting that improvement of educational methods may not be as practicable as has been hoped. Teachers, particularly in developing countries, are so imbued with traditional, highly mechanical techniques that faced with classes of up to 60 and with few facilities they succeed only in getting across peripheral skills such as spelling and mechanical arithmetic. The author considers that language teaching and modification of selected child-rearing techniques may offer greater success, and that changes of attitudes and values are of far greater importance than is merely increasing the material standards of a community.

Both for the clinician faced with numbers of immigrant and other working-class patients, and for the educational psychologist who is trying to devise 'culture-fair' tests, the book can be thoroughly recommended.

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DEVELOPMENTAL STUDIES

Determinants of Infant Behaviour IV. Ed. by BRIAN FOSS. London: Methuen and Co. 1969. Pp. 304. Price 70s.