

Humangenetik. Ein kurzes Handbuch in fünf Bänden. Edited by Peter Emil Becker. Band I/2. Merkmale des Gesichts. Schmecken und Riechen. Merkmale der Gliedmassen. Papillarleisten. Psychologie. (Pp. xvi + 572; 196 figures + 141 tables + 9 colour plates. DM. 224,-; subscription price: DM. 179.20.) Stuttgart: Georg Thieme. 1969.

This is the seventh of the nine parts of this five-volume encyclopaedia. The present section closes Volume I, the first section of which appeared last year (see review in this journal, Vol. 5, p. 363). It completes the discussion on normal anatomical and physiological traits, and gives an excellent summary of a very widely scattered and ill-organized literature. The largest chapter is by L. Loeffler of Hanover on the patterning of the skin in health and disease; there are nearly 600 references to an exhaustive and critical text of 200 pages. Genetically determined variations in psychological patterns are dealt with almost as extensively by v. Bracken of Marburg. Smaller chapters are devoted to the genetic variations in the iris (H. Oepen), the eye-lids (H. Ritter), the outer nose and the mouth and chin area (G. Ziegelmayr), and in taste and smell (G. Jörgenson), while the configuration of the outer ear and of the hands and feet are dealt with by F. Schwarzfischer and J. Schaeble, respectively. As in the earlier volumes, the contributors, the editor, and the publishers have done a superb job.

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Progress in Human Behaviour Genetics: Recent Reports on Genetic Syndromes, Twin Studies, and Statistical Advances. Edited by Steven G. Vandenberg. (Pp. xi + 356; illustrated + tables. 119s.) Baltimore: Johns Hopkins Press. 1969.

This book presents in part the papers presented at the Second International Conference of Human Behavioural Genetics, held in Louisville, Kentucky, from 30 April to 2 May 1966. There are 18 chapters, some very short, others quite long; they are divided into three parts. The first part, entitled 'Genetic Syndromes' uses the methods of studying the psychological concomitants of specific gene substitutions or abnormal chromosome complements, or of other genetic abnormalities.

The contents of these chapters range from psychological test patterns in Down's syndrome and cognitive deficits in Turner's syndrome, to physiological and pathological correlates of differences in taste acuity, to

four extremely interesting chapters dealing with schizophrenia. The longest of these, 'In pursuit of the schizophrenic genotype', by Gottesman and Shields, makes a powerful argument in favour of polygenic determination.

The second part deals with twin studies and includes the first published account of Sandra Scarr's work on 'environmental bias in twin studies'—a better title might have been 'Lack of environmental bias in twin studies'. It also includes a lengthy description of the Louisville twin study, which, being longitudinal, should in due course produce results of outstanding importance. It has not, however, produced anything very much to date and all these numerous tables and graphs do little but nourish hope for the future. Had these 50 pages been omitted the price of the volume might well have been more reasonable.

The third part, in some ways the most interesting, deals with statistical advances; obviously these do not lend themselves to any brief review. What is emerging is the possibility of testing psychological hypotheses by clever manipulation of data obtained in twin studies; some of the results already reported, such as those dealing with the inheritance of different components of intelligence, make a substantial contribution to our knowledge. Of even greater interest is the fact that a strong general component appears in the heritable part of dizygotic twin differences on a variety of intelligence tests. There is a widespread argument that the general factor of intelligence reflects primarily cultural and educational differences of subjects from different families and different social strata, because difference from these sources would be expected to affect test performance generally. 'According to this argument, the general factor should diminish as subjects of more homogeneous background are studied. The present analysis shows that this is not the case: the dizygotic twin pairs are the ultimate in subjects matched for background, and yet the differences within pairs between these twins are all positively correlated and, when corrected for environmental variation, exhibit a large general component.' This is a most important finding.

Symposia are not usually of great interest to non-participants; by the time the papers are edited and printed they usually simply repeat in a disjointed manner what some authors have said better elsewhere. This volume is an exception; anyone concerned with the inheritance of psychological or psychiatric characteristics will want to own or at least read this volume. It marks the beginning of a stage of very rapid advance in many of the fields surveyed.

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