

particular interest to the general reader in chemistry and biochemistry since it reveals trends of thought that are forming the background for the present remarkable developments in experimental technique.

The subject-matter of the opening paper by A. Tiselius was happily chosen in that it served as a logical introduction to many of the later contributions to the discussion. Prof. Tiselius dealt with the general strategy of the attack on a problem that has long intrigued chemists, biochemists and physicists interested in proteins, namely, that of the detailed orientation of the amino-acid residues in the protein molecule. The logical way of attacking this problem is by a process of successive fragmentation of the protein chain. If large fragments could be isolated, they could again be broken up into smaller fragments, the constitution of which could be determined by methods already available. The problem is, of course, mainly one of technique, but, as further contributions to the discussion showed, a rich field is developing in the isolation, determination and synthesis of oligopeptides and polypeptides; and although it may be too much to hope that the complete constitution of a natural protein will be determined in the near future, it is clear that a concerted attack on these lines by the many workers already engaged would yield an understanding of the main features of protein structure.

Another important aspect of the problem is the study of the natural protein molecule as a whole, since it is clear that no real advance can be made by the method of successive degradation until adequate proof is available that the protein is, in fact, a single molecular species. The importance of this point is now well appreciated, and the newer physical and chemical methods are increasingly employed in the search for protein preparations of proved molecular homogeneity. This search is proving more difficult and more prolonged than was at one time expected, and several of the papers, reporting studies of proteins by use of X-ray diffraction, electrophoresis, and the spreading of layers on water, emphasized the extreme complexity concealed by the terms 'albumin' and 'globulin'.

THE MIND OF THE CHILD

Childhood and After

Some Essays and Clinical Studies. By Dr. Susan Isaacs. Pp. viii+245. (London: Routledge and Kegan Paul, Ltd., 1948.) 15s. net.

THIS volume of selected papers, nearly all of which have already appeared in journal form, furnishes a representative sample of the late Mrs. Isaacs' contributions to the theory and practice of child psychology during the past twenty years [see p. 881]. The contents comprise five papers dealing with general aspects of child welfare and eight of a more specialized nature devoted to problems in the field of psycho-analysis. The general papers include a competent review of recent advances in the psychology of young children, an essay on the mental hygiene of the pre-school child and a discussion of the educational value of the nursery school. Included also is a report dealing with the question of children in institutions, originally presented as a memorandum to the Home Office Care of Children Committee in 1945 and here printed in full for the first time. Although some may feel that the arguments advanced in this report are

based on a somewhat selective consideration of the evidence, their cogency can be denied by none who has to do with the institutional care of young children. The memorandum is a model of lucid presentation and persuasive discussion of a difficult problem.

The eight technical papers which make up the bulk of the volume will probably prove of greater interest to the scientific reader. Four deal with theoretical aspects of psycho-analysis and four with special aspects of child development considered from the psycho-analytic point of view. Much of the material discussed may appear bizarre, if not wholly improbable, to the reader unversed in Freudian psychology. It must, however, be borne in mind that the evidence in favour of what Freud called (rather misleadingly) infantile sexuality is nowadays extremely impressive. Although there is disagreement on points of detail, the broad principle of early psycho-sexual development is accepted by a great many psychologists outside the Freudian fold. This principle not only renders comprehensible a wide variety of psycho-neurotic manifestations but also contributes in an important way to our understanding of the normal processes involved in the formation of character. One must, therefore, expect of the reader at least some understanding of the Freudian position if he is to follow the arguments developed in these papers. If he remains unconvinced of its basic validity, he would do better to turn to Freud's original writings than to persevere with a book such as this.

A striking impression which is left on the reader of these papers is the virtual impossibility of understanding the mind of the child in terms of adult psychology. Although we have long outgrown anthropomorphism in the biological field, something very like it appears to cling to us in our conceptions of the child's mentality. From the work of Mrs. Isaacs and other child analysts, we realize the futility of attempting to interpret the mind of the young child in terms of the attitudes and beliefs of adult life. The mind of the child, it appears, is a mind in which impulses of a primitive nature give rise to a wealth of phantasies, in part unconscious, which are apt to mingle freely with the world of sense perception. In this phantasy world, figures derived from the parents acquire qualities of beneficence or punitiveness out of all proportion to the child's actual experience. These phantasies not only influence the child's acquisition of conscience and character but also may lie behind a variety of psycho-neurotic manifestations. Their significance in relation to aggression and guilt, 'temper tantrums' and anxiety, is well brought out by Mrs. Isaacs in her clinical studies.

It must be mentioned that the author of this book, in common with so many protagonists of psycho-analysis, pays scant respect to the constitutional factor in neurotic illness. Although Freud himself admitted that all neurosis is at bottom a constitutional affair, this aspect is constantly neglected in neo-Freudian psychopathology. In this connexion, the medical reader will not be slow to note that several of Mrs. Isaacs' patients displayed pre-psychotic manifestations. The latter surely betray a constitutional element which cannot be neglected in theoretical interpretation. One might suggest that until the organic basis of psycho-neurotic illness is more fully considered by psycho-analysts, much of their doctrine will remain, in Freud's words, ". . . but a superstructure which will have to be set on its organic foundation".

O. L. ZANGWILL