

attention from the speech defect to the typical situation in which the defect is at its worst, and so to the usual character mechanisms. But the reviewer feels that Dr. Coriat tends to ignore the importance of anxiety and its causal traumatic situations, though his position might be a corrective to a corresponding neglect of the pleasure situations.

It is doubtful if anyone unacquainted with Freudian theory would find this book intelligible. The author repeatedly falls into the typical psycho-analytic fallacy of confusing relations of analogy with those of causation.

There is a good bibliography, but the author does not appear to have made full use of the material contained in it.

H. D. J. W.

An Introduction to the Theory of Perception. By Sir JOHN PARSONS, C.B.E., D.Sc., F.R.C.S., F.R.S. Cambridge University Press, 1927. Royal 8vo. Pp. viii + 254. Price 18s. net.

No more important contribution to physiological psychology has been made in recent years than Sir John Parsons' *Introduction to the Theory of Perception*. The central thesis of the work is the existence of a dual mechanism of the sensory system founded on the original theory of Head and Rivers. This theory has been modified by Parsons to the extent of postulating a primitive dyscritic mechanism upon which an epicritic is superposed, and at a still higher level he assumes a syncritic mechanism, subserved by the cortex cerebri, having the function of integrating epicritic phenomena. The author was fully alive to the validity of the criticisms of the fundamental experiments of Head at the time of writing, though he perhaps underestimates their cogency. Since then the destructive criticisms of Trotter have been reinforced by those of a number of other investigators, notably Schäfer in this country, and on the whole the anatomical existence of peripheral nerve-fibres subserving epicritic and protopathic sensation can hardly be seriously supported, whilst the physiological aspect of the question must certainly be reinterpreted. At the time that this book was published the work of Adrian on the conduction of sensory impulses was not yet fully available, and we venture to prophesy that the study of the discharge rate and frequency of the sensory impulse will before long throw a new light on the protopathic-epicritic question, just as it has enabled us to distinguish the conduction of postural, tactile and painful impulses. Be this as it may, the author is justified in holding that, whatever the views tenable about the peripheral nervous system, there is ample evidence of a dual sensory mechanism in the central nervous system. His chapter on the evidence from comparative anatomy is a masterly exposition of his thesis, and will be read with profit by anyone whose task it is to lecture on the physiological anatomy of the nervous system. The dyscritic motor response is then dealt with in a summary discussion

of the postural and static reflexes. We miss, however, a reference to the other important type of dyscritic motor response that is manifested by the so-called emotional responses of muscular tension, the visceral, vasomotor and the glandular reflexes. In view of the enormous part that these responses play in the organic resonance to stimulation of the dyscritic sensory system, we hope that in a future edition this aspect of the question will be more fully dealt with. The chapter on perception of space is both concise and admirably clear in its treatment of a subject that has proved a stumbling-block to every writer on physiological psychology. Everything that can be said about the visual mechanisms that subserve spatial perception is said, but we are still confronted by the old difficulty of getting extensity out of non-extensive subjectivity. The author makes no mention of the gallant attempt made by Cyon many years ago to solve the problem by assuming a projection of exteroceptive visual and tactile sensations on a ground plan of continuous sensation from the vestibule or, as he termed it, "the organ of space." Some of his experiments on the Japanese dancing mice and some investigations by later writers on avestibular patients are suggestive. No one is more competent than the author to write the succeeding chapters on the evidence for a dyscritic and epicritic theory of vision. The evidence is convincingly presented and, together with the author's book on colour vision, should be read by everyone interested in the subject. It appears to us that he has amply proved his case.

Much importance is attached throughout the book to the "all or none" quality of the dyscritic response. We think that this alleged attribute of dyscritic sensibility, which was first enunciated in the very *kritikloses* book of Rivers, *Instinct and Emotion*, is altogether unwarranted. The "all or none" law of nervous action is in reality a physiological abstraction applicable only to the isolated nerve-fibre, and in the living animal only instanced in the single giant nerve-fibre of the electrical organ of malapterurus. As a conception of functional activity it applies nowhere in the living animal since, whilst the isolated neurone gives an "all or none" response, gradation is effected by the greater or lesser number of neurones stimulated by any submaximal stimulus. Gradation, if properly looked for, may be demonstrated in every known reflex. The "all or none" hypothesis cannot be usefully involved as a qualitative test of a dyscritic reflex response.

The author postulates a syncritic mechanism subserved by the cortex cerebri to integrate epicritic phenomena. The evidence that he advances is scanty and largely unsupported, if not directly refuted, by the very remarkable later experiments of Graham Brown on the chimpanzee. It is difficult to find any evidence for a pious belief that we have all held in the epicritic functions of the cortex either in the work of Graham Brown or of Carville and Duret.

The introductory chapters on instinct, presentation and consciousness hardly add to the enormous scientific value of this remarkable book. We are not convinced that the attribution of awareness to primitive forms of life is other than an "overbelief," to use James's

convenient word, which in no way affects the scientific presentation of a work on the mechanism of perception. So far as we can judge the author is chiefly influenced by a desire for continuity which is strangely at variance with his unqualified acceptance of Lloyd Morgan's metaphysic of "emergence." We have never regarded the theory of "emergence" as other than a psychological restatement of the impracticability of causation as a metaphysical concept, but it surely knocks away any ætiological argument for continuity of consciousness in organic life. The chapter on instinct is, to our thinking, marred by the same insistence on the universality of awareness as evidenced in that well-worn fable of Lloyd Morgan's first peck of a chick. Surely the views of Bergson on instinct accord better with the facts and with introspective analysis. Much water has flowed under London Bridge since James wrote his celebrated essay, "Does consciousness exist?," but the whole tendency of both the neo-realists and of psychiatric observers is to relate consciousness to choice or spiritual tension in the Bergsonian sense. All this, however, belongs to another story. Sir John Parsons has given us a book on the mechanisms of perception that forms a landmark in physiological psychology, and that will for many years to come be indispensable to all serious students.

F. L. GOLLA.

The Problem Child at Home. By MARY BUELL SAYLES. New York: The Commonwealth Fund, 1928. Medium 8vo. Pp. x + 342. Price \$1.50.

The author, in a previous book, dealt with the problems which are presented by "difficult" children in school, and urged that the home and the parents are the root factors in the situation. She now advances her study another stage, describing, in the light of investigations made at a child guidance clinic, some of the ways in which parents adversely affect their children. Much of the present book consists of a series of illuminating case histories. It must be understood that the author is not dealing with cases of deliberate ill-treatment on the part of parents. A home, on superficial examination, appear to be all that could be desired, the children's physical needs may be adequately and even lavishly supplied, and yet there may exist the elements of most serious mental conflict. Nearly all the parents whom Miss Sayles mentions were actuated by the desire to do well by their children; but from exaggerated parental love, from mistaken ideas as to discipline, from the impulse to dominate, or from other causes, much harm was occasioned to the children. It is satisfactory to learn that the advice given by the clinic workers was often successful in attaining the desired results. All the cases can be paralleled in the experience of readers of the book. Where all is good, it is not easy to select any feature for special praise. But we may mention the chapter which deals with mistaken views on heredity. The importance of heredity is