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M. D. Vernon

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BY

M. D. VERNON, M.A.

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INTRODUCTION

The purpose of this book is to give a concise account of any experimental work, particularly that recently performed, which throws some light upon the psychology of reading. To understand the nature of the reading processes, it is necessary to have some acquaintance with the psychological and physiological phenomena of vision. Retinal sensation and the various intra-ocular processes integrated with it are fully described in the standard works upon optics, such as Helmholtz's *Treatise on Physiological Optics* and J. H. Parsons's *Introduction to the Theory of Perception*. But the movements of the eye which are mediated by the extra-ocular muscles have been dealt with less fully. Moreover, it has appeared both from the early work of Dodge, Dearborn and Huey, and from the later work from the Education Department of the University of Chicago, that a very remarkable series of specialized ocular motor habits has been developed in the mature reader, comparable to the series of motor habits of the vocal chords in speech and of the hand in writing. These ocular motor habits have been perfected and closely integrated with primary perceptual and assimilatory processes and secondary associative thought processes to constitute the total complex which makes up reading. Consequently, though it has been taken for granted that the reader of this book is sufficiently acquainted with the normal unspecialized phenomena of vision not to

require any further description, a full account is given of the rotatory movements of the whole eyeball, and the specialization and development of the habits of movement which occur in reading. To this end, a short summary is first given of the various methods which have been devised for studying and recording these eye movements, followed by a description of the various types of movement mediated by the extra-ocular muscles, and a brief outline of the connections between the kinaesthetic sensations derived from these movements and visual sensation in general. There follows a detailed survey of all the experimental work on the movements of the eyes in reading, and more particularly of the recent work which has not hitherto been comprehensively reviewed.

Having dealt with the motor processes involved in reading, it is then necessary to consider the perceptual phenomena which occur in the reading of adults and children. There has been little experimental work since the publication of Huey's *Psychology and Pedagogy of Reading* upon adult perception in reading; and the majority of the work upon children's perception in reading, though possibly of much pedagogical value, has been too disconnected and uncontrolled to provide results of much reliability or psychological interest. Consequently, these subjects have perhaps been assigned less consideration than they require or deserve. Some attempt has, however, been made to relate them to perception in general. With regard to the secondary thought processes associated with reading we have little experimental evidence; moreover their range is clearly co-extensive with the whole

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field covered by the higher cognitive processes, and is therefore outside the scope of this book.

Finally, some account is given of the effects of variations in the external stimulus, the printed text. A considerable amount of experimental work has been devoted to this subject, but unfortunately much of it is mutually contradictory, by reason of a series of qualifications and objections which are described therewith. Thus, in the absence of any authoritative pronouncement, our manner of printing continues to be regulated partly by tradition and partly by the cost of printing.

A short résumé of the conclusions as to the development and essential nature of the complex of processes which constitute reading is given at the end of the book.