

MENTAL DEVELOPMENT AND EDUCATION

BY

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PREFACE

IN writing this volume the author has had constantly in mind the interests and needs of teachers in service and also persons who are preparing to teach. Consequently those aspects only of mental development and of education which directly concern those who train the young have received attention; all strictly technical and speculative discussion has been avoided. No attempt has been made to treat comprehensively the psychology of childhood and youth or educational values and methods. Two questions have guided the discussion throughout; — first, How does the individual normally respond at different periods in his development to the typical situations, physical, intellectual, æsthetic and social, in which he is placed; and second, How can he best appropriate the materials and benefits of education so that he can utilize them to greatest advantage in daily life?

The point of view is that afforded by present-day biological psychology. For those who may not at first glance see just what this point of view is, it may be said that one who regards human nature from the standpoint of biological psychology seeks to explain the behavior of a child or a youth on the basis of natural laws governing the development of his body, his intellect and his character. It is seen that the individual is at birth equipped with tendencies which represent some of the activities which have proved of service in the life of his ancestors, and these tendencies are manifested in varying degrees and forms in the course of development from birth to maturity. But the child is born into an environment which is fundamentally different in many respects from that in which the impulses which he brings with him were

established, and so he encounters difficulties in adjusting himself to the world in which he must live. It is the object of education in the school and in the home to assist the individual to make necessary modifications of and adjustments to his environments as easily and effectively and with as little strain and stress as possible. To secure information bearing on these matters, the writer has made observations and investigations on his own part and has studied the investigations made and views presented by others; and he has endeavored to organize and interpret all available data, and present conclusions in straightforward, intelligible language.

Stress is laid in this volume on dynamic methods in teaching, and an attempt is made to observe the principles advocated by assigning an important place to exercises requiring the student to analyze and investigate problems, to interpret data bearing on various aspects of development and education, and to apply conclusions to original situations. It is the author's experience that most readers and students need the stimulus of concrete problems in order actually to master what they read or study, and especially to gain ability and facility in making practical use of the principles they acquire. So in Part III of this volume many photographs, diagrams, tables, graphs, quotations and queries are employed, all relating in an orderly way to subjects which are discussed in the text, and the reader is encouraged to utilize all his resources in knowledge and critical method to throw light into dark places and to bring apparently divergent phenomena under a few basic principles of development and of education. A sufficient variety of exercises has been provided so that a class, a study circle, or an individual reader can select according to special interests, facilities for investigation, or degree of acquaintanceship with psychology and related sciences.

In 1905 the writer published a volume entitled "Dynamic Factors in Education," which was more or less of a pioneer in the

field which it covered. This book met with a generous welcome from teachers, and it has apparently played a small part at least in promoting dynamic methods of teaching in the schools of our country; but the plates have become worn, and it has been decided not to reprint it. Consequently, it has seemed advisable to include in this volume a few of the more useful chapters, thoroughly revised, of the earlier book. It is possible that a reader of this volume may recognize some paragraphs which he saw in the earlier book; but the little that has been preserved from "Dynamic Factors in Education" has been brought into accord with the large amount of research that has been conducted in this field since the earlier book was written.

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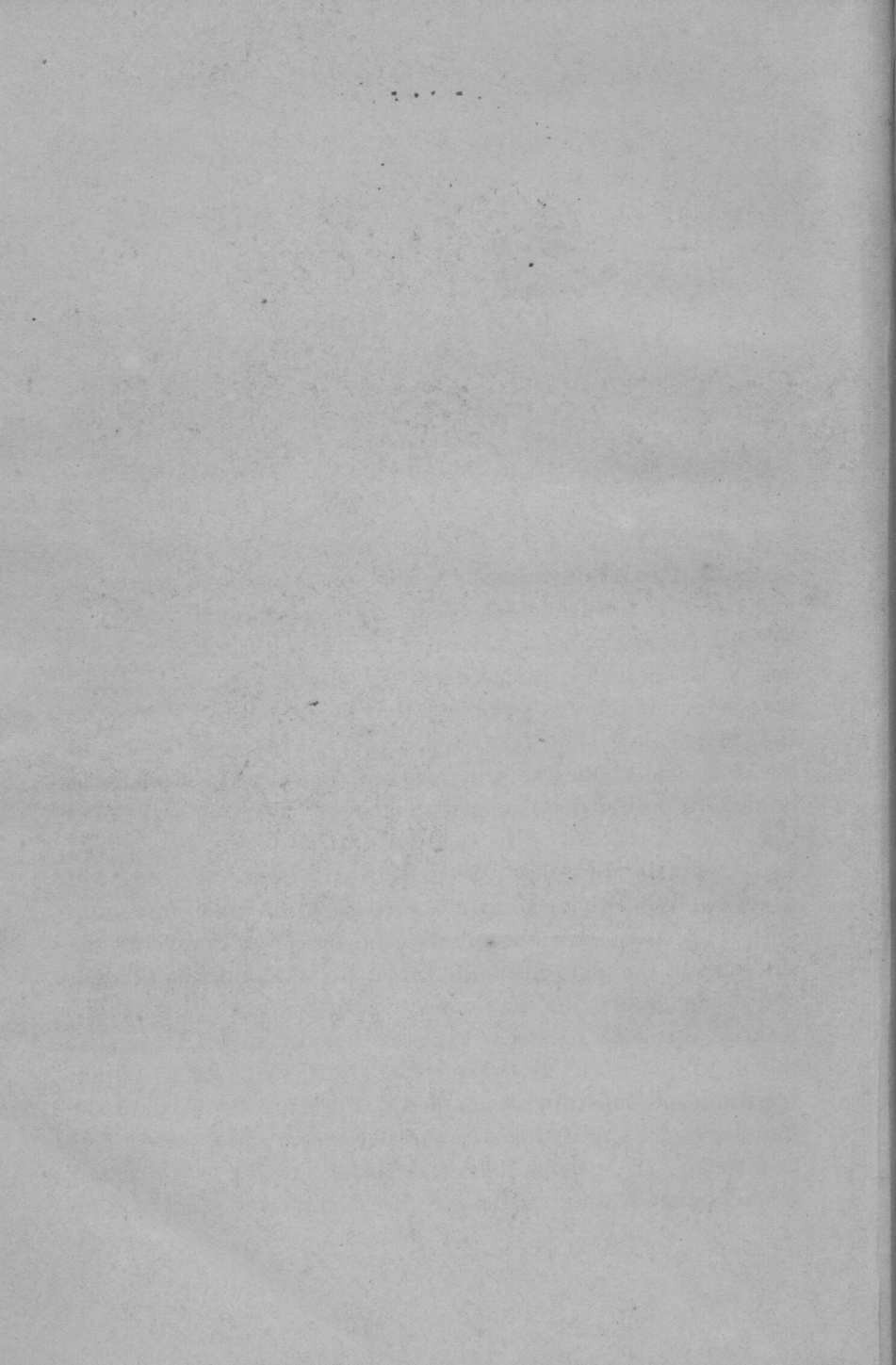
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PART ONE

DYNAMIC ASPECTS OF MENTAL DEVELOPMENT



MENTAL ~~THESE~~ DEVELOPMENT AND EDUCATION

CHAPTER I

MOTIVE FORCES IN DEVELOPMENT: PHYSICAL WELL- BEING

A COMPLICATED subject may perhaps best be introduced by a simple illustration. In the spring one plants a bean seed in moist earth. Soon the young plant will break through the soil. Roots will push downward into the earth, and stalk, branches and leaves will appear above the earth. If there is an obstruction in the path of the roots, they will turn out of their course in order to avoid it. So above the soil, — if the space directly overhead is already occupied by another plant, the new one will bend this way or that so as to take advantage of any unoccupied space. Finally blossoms will appear and then the seeds will develop. When the seeds are matured the plant will disintegrate.

A simple
illustration
of the nature
and rôle of
driving forces

It is apparent that the ultimate purpose which governs the activities of the plant in its life career is the production of seed, and every detail of its development has reference to the attainment of this goal. It seeks to fasten itself in the earth so that it will not be torn up by the winds. It struggles to obtain moisture and constructive materials which are essential to the building of the supporting structures necessary to bear the leaves and seeds. It develops foliage as thickly as space will permit in order that it may secure and digest carbon dioxide in suffi-