

## REVIEW OF PERSONALITY AND LEARNING THEORY

Raymond B. Cattell

Reviewed by  
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### ABSTRACT

More than 25 years ago Raymond B. Cattell presented a paper at the Kentucky Symposium on *Learning theory, personality theory and clinical research* (Cattell, 1954). In this remarkably foresightful analysis, Prof. Cattell outlined what he considered to be the necessary steps which should be taken in order to bring together the essentially separate areas of personality and learning theory into a comprehensive theory of behavior. Prior to, and in the years following Cattell's paper, other psychologists have also recognized the far-reaching significance of this type of integration. However, until the publication of the two volumes of *Personality and Learning Theory*, such a significant rapprochement had yet to be considered in the detail which it deserves.

The first volume of *Personality and Learning Theory* is to a large extent a concise summary and synthesis of various areas of Cattell's research involvement. Some chapters, such as those on life situation measures, motivation, and laboratory measurement, represent condensations of entire books. Other chapters consist more of a gathering of ideas which had been published in diverse sources. As a result, Volume 1 provides an excellent starting-off point for readers encountering Cattell for the first time, who might otherwise be overwhelmed by the task of digesting such a vast amount of material. Since 1975, I have been teaching an undergraduate course focusing upon the work of Cattell and his associates. This book is ideally suited for use as a text in such a course.

Those who are more familiar with previous work of Prof. Cattell can also be expected to appreciate the convenience of having an up-to-date, single source to which they may refer for an overview of his approach to psychology. Moreover, many intricate concepts have been restated with greater clarity, often with a fresh example or analogy, leading to insights which may have eluded even the most assiduous reader of previous books and articles.

But Volume 1 is not only a comprehensive consolidation and lucid restatement of previous writing, it also contains important elaborations of earlier proposals and novel hypotheses about some fascinating theoretical issues. Some of these new thoughts, such as those regarding the relationship between first and second-order factors, between the observer and the observed, and between different mediums of personality measurements, may be found throughout the book. However, the chapter on measuring the environment, referred to as "econetics" is almost entirely new. Beginning with a framework set forth in a chapter of a book on the *Stimulus Determinants of Behavior* (Sells, 1961), Cattell presents two

important approaches to measuring the environment, the "person-centered" and the "additive attributes" models. The development of these models is an important new aspect of Cattell's overall theory of human behavior as may be seen in the second volume.

In Volume 2 of *Personality and Learning Theory* Cattell builds upon the foundation laid in Volume 1 and proceeds to extend his system of scientific ideas to an extraordinary degree. The essence of Cattell's approach is that learning is a multidimensional change in a multidimensional situation. Having dealt in Volume 1 with the measurement of dimensions, or "structures", Cattell now moves on to consider how structured learning is intertwined with maturational change. Because such a task involves sophisticated treatment of hereditary principles, the opening chapter focuses to a great extent upon genetics. Next there is a comprehensive treatment of the role of motivation in learning, followed by a comparison of structured learning theory with reflexological approaches. Subsequent chapters deal with matrix procedures for handling multidimensional change together with details of how integrating structures function within a systems theory of personality, society and culture.

Throughout *Personality and Learning Theory* the sheer number of new concepts is in itself impressive. But it is the quality of these fresh ideas which is most overwhelming. I would venture to say that there are probably more potential Ph.D thesis topics per page than in any other single book that has ever been written about psychology. An incredible range of topics is covered, from genetics to the dimensions of whole societies, and the depth of scholarship is outstanding. Having worked both with Charles Spearman and E.L. Thorndike gives Cattell a unique perspective from which to approach the colossal task of building a bridge between psychometrics and learning theory. His immense knowledge of material from other disciplines is also much apparent throughout the book. While explaining intricate psychological concepts, Cattell flows with ease to analogies in physics, chemistry or biology. Similarly, he is able to move from poetry to formulas, and then back to Shakespeare, with a grace that is seldom seen in scientific writing. Some reviewers have found Cattell difficult to read. Yet it has been my experience that if one takes the trouble to learn the terminology which he has carefully developed over the years, there is a quality to his writing style which rivals that of great literary works.

Taken together, the two volumes of *Personality and Learning Theory* represent an enormous achievement. Yet the important question still remains as to what will be the impact of this major work upon future developments in psychology. One of the most frequently used adjectives in reviews of Cattell's previous books has been "brilliant". Yet previous reviews have also noted that while Cattell has been highly respected, at the same time he has been greatly ignored. Historians will be able to trace multiple reasons for the relative neglect of his work, of which one of the foremost will be that he was often far ahead of his contemporaries in many of his ideas. It is this reviewer's opinion that Cattell will someday be generally recognized as having made contributions to psychology on the same level as Newton, Darwin and Einstein in their sciences. *Personality and Learning Theory* may be looked upon as his masterpiece. He has truly followed "knowledge, like a sinking star, beyond the utmost bounds of human thought."