

*Sixth Edition*

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*Psychological  
Testing*



*Anne Anastasi*

SIXTH EDITION

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# *PSYCHOLOGICAL TESTING*

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# ***PSYCHOLOGICAL TESTING***

# PREFACE

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The decade of the 1980s has been a period of unusual advances in psychological testing. Technological progress, theoretical sophistication, and increasing professional responsibility are all evident in the fast-moving events in this field.

Since the publication of the preceding edition of this book, there has been considerable activity with regard to the testing instruments themselves. First, we find the usual crop of periodic revisions of well-established instruments, such as the Cognitive Abilities Test, the Metropolitan Achievement Tests, the Boehm Test of Basic Concepts, and the 1985 edition of the Strong interest inventory (SVIB-SCII). There are new tests, such as the Kaufman Assessment Battery for Children (K-ABC) and the Multidimensional Aptitude Battery (MAB), and fundamental revisions of basic classics, such as the Vineland Adaptive Behavior Scales and the Fourth Edition Stanford-Binet. Several other well-known instruments are currently undergoing revision. Examples include the Minnesota Multiphasic Personality Inventory (MMPI), the California Psychological Inventory (CPI), and the Wechsler Preschool and Primary Scale of Intelligence (WPPSI-R). There is also an increasing development of tests for use in newly emerging areas of psychology, notably health psychology and environmental psychology, as illustrated by testing instruments for behavioral toxicology and environmental medicine, which cut across both areas.

This period has also seen a sharp increase in attention to the test user. This focus is clearly exemplified in the content of the 1985 revision of the *Standards for Educational and Psychological Testing*. Communications with test users are being strengthened in various ways, including the expansion of sources of information about tests. The latter is illustrated by the recently established on-line computer service for the Buros Institute database, which covers monthly updates for tests published and reviewed between the appearance of successive yearbooks. There has also been an upsurge of test familiarization materials for test takers, several of which use computer software.

Judicial and legislative action pertaining to testing has continued apace. Some is concerned with the proper use of tests for persons with physical or mental handicaps or with diverse linguistic or cultural backgrounds. Other legal problems arise from possible conflicts between the proprietary rights of test authors and publishers, on the one hand, and the maintenance of high technical standards, on the other. A related development is

the preparation of several sets of professional standards and guidelines, some involving the cooperative efforts of professional associations and representatives of test publishers. Examples include the *Guidelines for Computer-Based Tests and Interpretations*, published in 1986 by the American Psychological Association, and the ongoing project to develop test purchaser qualifications.

The 1980s have also witnessed significant methodological and theoretical developments that are likely to have far-reaching effects on psychological testing. Several methodological advances are closely linked to the increasing availability of microcomputers, as well as to improved computer utilization, as in computerized adaptive testing (CAT) and other interactive computer uses. Outstanding examples include the replacement of multiple cutoffs by regression equations and validity generalization in the interpretation of scores on the USES General Aptitude Test Battery (GATB); the development of the CAT form of the Armed Forces Vocational Aptitude Battery (CAT-ASVAB); and the joining of dynamic assessment from clinical psychology with item response theory (IRT) and CAT from psychometrics. Developments in cognitive psychology are having an impact on several aspects of test construction and use, especially in relation to construct validation, task analysis techniques, and the diagnosis of learning disabilities.

From a theoretical viewpoint, a noteworthy development is the reformulation of diverse trait concepts to yield more inclusive and comprehensive models. This trend is illustrated by a movement away from sharp distinctions and toward continuity with regard to: generality versus specificity of trait levels, lasting traits versus transitory states, and individual trait-variance versus situational variance. A parallel trend is toward more flexibility in the choice of appropriate points in each continuum, to suit particular assessment needs. A stronger theoretical orientation is also reflected in evolving concepts of test validation.

Not surprisingly, the rate of growth of relevant publications has been increasing rapidly. Of the nearly 1,900 references cited in this edition, over one third appeared in the 1980s. Nonetheless, in updating a textbook on psychological testing today, the published literature no longer suffices. For current information, I am indebted to the many researchers, authors, and test publishers who provided in-house reports, unpublished manuscripts, preprints, specimen sets of tests at various stages of development, and answers to my innumerable inquiries by mail, telephone, or personal conferences. For contributions beyond the normal expectations, I owe special thanks to the following persons.

From governmental and private organizations: Debra Boltas, American Psychological Association; Raymond S. Nickerson, BBN Laboratories; Gretchen W. Rigol, The College Board; Lillian Avery, Cooperative Personnel Services; David J. Kleinke, Edison Electric Institute; William H. Angoff, Garlie A. Forehand, and Jerome R. Murphy, Educational Testing

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A. A.



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PART ONE

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*CONTEXT  
OF  
PSYCHOLOGICAL  
TESTING*

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# CHAPTER 1

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## *Functions and Origins of Psychological Testing*

**A**NYONE reading this book today could undoubtedly illustrate what is meant by a psychological test. It would be easy enough to recall a test the reader has taken in school, in college, in the armed services, in a counseling center, or in a personnel office. Or perhaps the reader has served as a participant in an experiment that used standardized tests. Since the meager beginnings of modern psychological testing at the turn of the twentieth century, testing has grown at an increasing pace and its applications have expanded into more and more areas of daily life. This growth has been accompanied by some unrealistic expectations, some misuses, and some skepticism. To reap the benefits that testing can provide, it is essential to examine both sides of this picture.

### USES OF PSYCHOLOGICAL TESTS

Traditionally, the function of psychological tests has been to measure differences between individuals or between the reactions of the same individual on different occasions. One of the first problems that stimulated the development of psychological tests was the identification of the mentally retarded. To this day, the detection of intellectual deficiencies remains an important application of certain types of psychological tests. Related clinical uses of tests include the examination of the emotionally disturbed, the delinquent, and other types of behavioral deviants. A strong