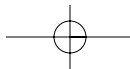
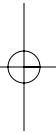
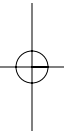
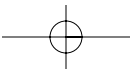
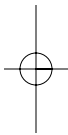
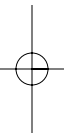
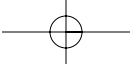


Psychological Testing and Assessment





Psychological Testing and Assessment

An Introduction to Tests and Measurement

SIXTH EDITION

Ronald Jay Cohen

Mark E. Swerdlik

ILLINOIS STATE UNIVERSITY

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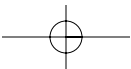
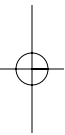
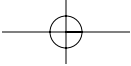
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This book is dedicated with love to the memory of Edith and Harold Cohen.





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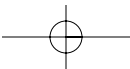
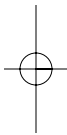
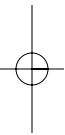
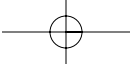
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Preface

I remember walking with some of my fellow clinical psychology interns at Bellevue Hospital, entering a building in the NYU-Bellevue Medical Center complex, and hearing someone—pointing to a man in the distance—say, “There’s David Wechsler!” Indeed, there stood one of the living legends in the field of psychology. As a graduate student, I had learned to administer each of the Wechsler intelligence tests and had even been privileged enough to serve as an examiner in the restandardization of one of them. Seeing this psychologist in person, for the first time, as a fellow employee at Bellevue, inspired a sense of awe.

It was during my internship year at Bellevue that I first began to think about writing a textbook on testing, assessment, and measurement in psychology. I was gaining a great deal of clinical experience in the area of assessment, was completing a doctoral dissertation involving assessment and impression management, and had access to some of the most renowned human resources in the field of clinical psychology. In settings as diverse as the Bellevue child/adolescent/adult in-patient services, psychiatric emergency room, prison service, adult out-patient clinic, and in-hospital courtroom, academic instruction was complemented by supervised experience with a wide variety of assessment-related dilemmas and solutions. This growing body of knowledge and experience reinforced my developing views about the need for a new measurement textbook. This new textbook would be authored by people who actually used tests with real people. It would address not only psychometric essentials but various areas of interest to students of assessment who have wondered about sundry aspects of the enterprise.

My education and experience in the area of testing and assessment continued after my internship year with my appointment as senior psychologist on the NYU-Bellevue staff. I handled a regular stream of assessment cases and instructed and supervised clinical psychology interns. The work entailed daily immersion in all phases of clinical assessment, including routine case presentations to colleagues. One day, while chatting informally with David Wechsler—the luminary I had come to know as a colleague—he related a story about the time Dan Rather and a CBS camera crew had set up shop in his Upper East Side apartment. They had come to conduct an in-depth interview with him on the subject of intelligence, for use on *CBS Reports*. Dr. Wechsler quipped that it wasn’t until that day that the people in his building got an inkling that he must be kind of an important person; he had to be, if Dan Rather was coming to interview him! Even as Dr. Wechsler spoke, I envisioned a time when I, too, would request a formal interview with him, the better to provide some “insider” insights for this book. But the interview was not to be. Dr. Wechsler’s death preceded that request.

Although we did not have the benefit of Dr. Wechsler’s personal input for the first edition of this textbook, we have been—through the more than quarter-century in which the present edition of this textbook has evolved—fortunate enough to obtain the input of dozens of other authorities in areas such as intelligence, personality, statistics, and culture. During that period, the authors collectively gained not only greater knowledge about how to effectively convey essential measurement principles in a textbook but also greater personal experience using tests and applying measurement principles in a truly wide array of clinical, school, and organizational settings. In these pages, you have the opportunity to reap the benefit of this accumulated experience and knowledge as well as countless hours of diligent research to make this work as current as possible.

Reviewers of previous editions of this work have tended to praise its breadth and depth—which I dare say has only improved with age. Beyond coverage, I believe you will find the writing style and level of this book to be somewhere between “most accessible” and “highly appealing.” As has been our custom, we have interspersed elements of humor in various forms (original cartoons, examples, and vignettes) throughout the text. The judicious use of humorous examples to engage and maintain student interest is something of a novelty among measurement textbooks. Where else would one turn for pedagogy that employs an example involving a bimodal distribution of test scores from a new trade school called *The Home Study School of Elvis Presley Impersonators*? What about the use of regression equations to predict prospective grade-point averages at the *DeSade School of Dentistry*? As readers learn about face validity, they discover why it “gets no respect” and how it has been characterized as “the Rodney Dangerfield of psychometric variables.” We could list more examples, but let’s reserve those smiles for a pleasant surprise when you come upon them in the text.

Also in the interest of engaging and maintaining student interest, we draw heavily on various examples from popular culture, including popular media. Take note, for example, when you find mention of programs such as *Trading Spaces*, *Wild On . . .*, *Iron Chef*, *South Park*, and *Survivor*. These are television shows that students watch, and a (surprise) reference to one of them in order to illustrate an assessment-related point is designed to elicit a pleasant feeling of recognition—all in the context of involving students in the material. In the course of learning how to write a good matching-type item, for example, students are challenged to identify what actors Pierce Brosnan, Sean Connery, Timothy Dalton, George Lazenby, David Niven, and Roger Moore all have in common.

Throughout, we have tried to incorporate timely, relevant, and intriguing illustrations of assessment-related material. For example, in the new *Everyday Psychometrics* box in Chapter 1, we introduce the subject of evaluation and ratings in the context of the Motion Picture Association of America’s film rating system. In the new *Close-up* box in Chapter 2, we take a detailed look at the Supreme Court case *Grutter v. Bollinger et al.* (2003). In that case, the Court grappled with issues of diversity as they affect the evaluation and selection of applicants for admission to public universities.

Novel, thought-provoking, assessment-related material has been something of a tradition in each edition of this book. Intriguing discussion has been presented on topics as diverse as the Szondi Pictures Test (first edition), marital and family assessment (second edition), in-home evaluation of consumer response to television commercials (third edition), computer-assisted behavioral assessment in institutional settings (fourth edition), and “life-or-death” psychological assessment (fifth edition). The tradition continues in the present work. For example, in Chapter 12, many readers will be surprised to learn of B. F. Skinner’s flirtation with projective testing (yes, *that* B. F. Skinner).

Beyond intriguing assessment-related sidebars, there is a great deal that is new to this edition, and new about it. Of course, we have updated the text with regard to new tests that have been published since our last edition. This updating includes descriptions of the new Wechsler, Stanford-Binet, Bender-Gestalt, GRE, and SAT tests, among others. Of course, we have updated the text with new test-related legislation, judicial decisions, and administrative regulations that have gone into effect since our last edition. Expanded and updated coverage is presented on a wide variety of topic areas, including

- culture-related issues, including specific recommendations for culturally informed psychological assessment
- the medical model of disability as compared to the new paradigm of disability
- test-item writing, including item writing for item-branched and item-banked tests
- geriatric assessment

- assessment in the military
- assessment for career change and career transition
- dynamic assessment
- biopsychosocial assessment
- the Big Five, Cattell's "Big Five," and Tellegen's "Big Three"
- recent critiques of projective methods, along with rebuttals to those critiques
- quality assurance methods during the test revision process, including the introduction of new terms such as *anchor protocol* and *scoring drift*

In the interest of conserving space while providing students with a quick and easy way to reference information, we have placed more material in tabular form. New tables in this edition include information regarding

- pros and cons of various sources of information about tests
- advantages and disadvantages of various item formats
- pros and cons of traditional group testing
- important legislation, litigation, and administrative regulations
- major entrance examinations for professional or occupational training
- essential "dos" and "don'ts" of cultural sensitivity in assessment

Complementing all of the new material is an expanded glossary. More than 100 new terms have been added to the glossary in this edition. With all of the new and enhanced coverage, the length of this book could easily have been increased significantly over previous editions. Instead, through thoughtful writing and rewriting, careful editing, and the liberal use of tables to summarize information, the book's size is about the same as previous editions'. The initial, introductory material has been reduced in length so that students can obtain a general overview of the field relatively quickly. Throughout the book, the size of most of the paragraphs has been reduced compared to previous editions. Essential material from the former Chapter 17, "Computer-Assisted Psychological Testing and Assessment," was transferred as appropriate into other chapters throughout the book. Indeed, *less can be more*.

One thing that has *not* changed in this edition is our dedicated resolve to develop a leading-edge, much-emulated-but-never-duplicated, measurement textbook that

- introduces students to the assessment enterprise and overviews the wide range of instruments and procedures they may encounter
- familiarizes students with the reasoning behind the construction of tests and the rationale of various approaches to assessment
- leaves students with a sense of the appropriate uses of tests
- leaves students with a sense of the inappropriate uses of tests
- compels students to think actively about issues related to testing and assessment

Along the way, there has been a concerted effort to *humanize* the material, the better to involve students with it. Such humanizing of the material can be seen in the writing and in the illustrations, as when we include interesting biographical facts on historical figures in assessment. See, for example, the new photo and brief biographical statement of MMPI senior author James Butcher (Figure 11-4). Throughout the text, an attempt has been made to truly involve students via intriguing, real-life illustrations of points. Some examples:

- life-or-death psychological assessment and the ethical issues involved (pages 55–56)
- human emotion in the context of categorical cutoffs (page 7)
- the breathalyzer as a point of departure to discuss reliability (page 147)
- the confessions of a behavior rater (pages 408–409)
- assessment through means such as evaluation of college yearbook photos (page 415)
- the utility of tests to measure aggressiveness (page 338) and dangerousness (pages 440–441)

The first proposal for this book was sent to a publisher in the mid-1970s. In that document, I envisioned a measurement text that was different in key ways from any existing book. As it happened, the first edition of this text would begin a tradition in terms of setting the standard and then raising the bar for measurement textbooks to follow. It would be a textbook that stood in stark contrast to any other of the day in terms of content, organization, style, originality, and pedagogy, among other variables. With regard to content, for example, it contained material not seen before—but now rather standard—in measurement textbooks. Contrary to prevailing beliefs, I believed that topics such as forensic assessment, neuropsychological assessment, and assessment for custody evaluations merited coverage in a measurement textbook. Having acted as a consultant to businesses and commercial test development firms such as Educational Testing Service, I appreciated how valuable it would be to cover business-related applications, including consumer assessment. Having been employed full-time as a clinician who regularly administered tests, I wanted to write a chapter on clinical assessment that imparted a firsthand sense of what clinical assessment is about. Having taught testing and assessment, I knew that many students entered the course “rusty” or downright unsure of themselves with regard to basic statistics—hence the development of the “Statistics Refresher” chapter.

The style of the book—somewhat informal in tone—complemented the new content well. Because I found my sense of humor to be a valuable asset in the classroom, I attempted to intersperse some “personality” and humorous illustrations in the writing. Because I always enjoyed reading about historical aspects of the enterprise, I included photos of historical figures in assessment, complete with interesting biographical facts. In these and other ways, the first edition of this book represented a major departure from what was then available in measurement textbooks. Our new way of defining what a measurement textbook could be might best be characterized as *magical*, judging from the overwhelmingly positive response it elicited from instructors who taught measurement courses.

Upon publication of the first edition, I learned that many people in the field found the unique aspects of the book most appealing. One of those people was Lee J. Cronbach, who shared with me, when we met at an APA meeting, how very much he enjoyed the book. I was so grateful to Lee for his encouragement, and felt so uplifted by our meeting, that I subsequently requested a photo from him for use in the second edition. The photo he sent me was indeed published in the second edition of this book—in spite of the fact that Lee had out at the time a measurement book that could be viewed as a direct competitor in the textbook marketplace. Regardless, I wanted Lee’s place in history acknowledged, and I wanted to thank him in my own way for his kind words and “seal of approval.”

Beyond content and style, the first edition of this book was unique in terms of its organization. Here, there really was no magic involved, only logic. We started with a few chapters to overview the field, gave some historical perspective, and provided important background related to legal, ethical, and cultural issues. After the statistics refresher,

we proceeded with several chapters designed to impart the essential basics of measurement. Logic dictated that prior to any discussion of the assessment of intelligence, personality, or whatever, some preliminary information regarding definitional and related issues must precede it. What followed next were several chapters designed to illustrate sundry aspects of measurement in various applied contexts. Having served as a consultant to many businesses and organizations, and being the founder and editor-in-chief of a scholarly journal (*Psychology & Marketing*) that regularly features articles detailing business applications of assessment, I felt I had unique and valuable information to offer students taking a course in measurement.

As it turns out, the organization of our book has been so appealing that almost every major textbook on the subject published since we first submitted our proposal follows the same or a similar formula. In fact, reviewers have sometimes referred to these similar books as “Cohen clones” or “Cohen wannabes.” My own characterization would lean more toward “wannabes” than “clones,” as a *clone* is an exact replica; all of the “wannabe” measurement textbooks are but pale copies.

Imitation is the sincerest form of flattery, and we look on with some sense of gratification as others try to capitalize on our success. But while the wannabes may copy our organization, and even some of the illustrations and features, there is so much that they cannot copy. They do not (and seem unable to) copy our style. They do not humanize the material in the way that we do. They cannot copy our leading-edge content because they are, by their self-evident nature, followers. It will take them an edition or two, for example, to incorporate some of the new material in this edition. For some topics, such as culture-related issues in assessment, the wannabes have a particularly long way to go to catch up. Some of the wannabes depart from our chapter organization by covering legal/ethical issues near the end of the book rather than at the beginning. Personally, I view such placement as ill-advised. Legal and ethical issues set a context for the assessment enterprise. Discussion of legal and ethical issues helps place the discussion of measurement, assessment, and testing in perspective. Also, unless chapters are assigned from the rear of such books early on, the possibility exists that some students will receive no exposure at all to this most important information.

Another key way in which this book parts company with comparable books is in the way that issues of testing and assessment are distinguished. In a bygone era, we believe every reason existed to entitle a book such as this *Psychological Testing* and then proceed to clump issues of testing with issues of assessment in all discussion. Today, in an era when it is important to distinguish between *testing* and *assessment*, we believe a title such as *Psychological Testing* can be anachronistic, if not misleading, in terms of the material that is actually being covered. We believe that it is incumbent upon contemporary textbook authors to make a clear distinction between *testing* and *assessment*. We do that in the first few pages in an effort to orient the student to all that follows. We also believe that it is a sound teaching practice to maintain the definitional distinction between *testing* and *assessment* throughout the book. We heartily encourage instructors to exercise some critical thinking with regard to how well many of the competing measurement textbooks make a distinction between testing and assessment—beginning with the book’s title—and then maintain that distinction in their writing. And speaking of critical thinking . . .

Critical thinking may be defined as “the active employment of judgment capabilities and evaluative skills in the thought process” (Cohen, 1994, p. 12). *Generative thinking* may be defined as “the goal-oriented intellectual production of new or creative ideas” (Cohen, 1994, p. 13). The exercise of both of these processes, I believe, helps optimize one’s chances for success in the academic world as well as in more applied pursuits. In previous editions, questions to stimulate critical and generative thinking were raised “the old-fashioned way.” That is, they were right in the text, and usually part of a paragraph.

Acting on the advice of reviewers, we have made this special feature of our writing even more special by writing more questions and setting them in the margins. Now it is up to motivated students to do their part and actually *think* about the *Just Think* questions. In this context, instructors, too, may consider thinking about one question related to student motivation: Will awarding extra credit for writing responses to selected *Just Think* exercises further motivate students?

In addition to critical thinking and generative thinking questions called out in the text, other pedagogical aids in this book include original cartoons created by the authors, original illustrations created by the authors (including the model of memory in the neuropsychological assessment chapter), and original acronyms created by the authors.

We have offered a student workbook, an instructor's manual, and a test item bank as part of the teaching package with every edition of this book since the very first. Recent editions have further supplemented this excellent teaching package with Internet-based study aids for students, as well as teaching tips and a discussion forum for instructors.

The authors have been very focused and very diligent in their efforts to bring you a leading-edge measurement textbook that involves students in the subject matter and imparts a wealth of academic and applied information essential to understanding psychological testing and assessment. Mark Swerdlik persevered in these objectives under very challenging conditions since the last edition. During that time period, Mark lost his mother, Edna (1912–2003); his father, Al (1910–2002); and his uncle, Aaron Swerdlik (1917–2002), who holds the distinction of being a layperson with no background in psychology who actually read our book cover to cover. Mark dedicates his contributions to this edition to the memory of these cherished family members.

As we were completing work on this edition, I received the most unexpected news that my mother had suffered a massive stroke. She did not survive. It is impossible to express the sense of sadness and loss experienced by myself, my brother, and my sister, as well as the countless other people who knew this gentle, loving, and much loved person. We will miss her counsel, her sense of humor, and just knowing that she's there for us. We will miss her genuine exhilaration, which in turn exhilarated us, and the image of her welcoming, outstretched arms whenever we came to visit. Her children were her life, and the memory of her smiling face, making each of us feel so special, survives as a private source of peace and comfort for us all. She kept a copy of this book proudly displayed on her coffee table; one need not be an expert in evaluation to understand the significance of that. My dedication of this book is only one small way I can acknowledge how very special she was to me. In looking through family albums for a photo to include, it was perhaps not surprising that few photos existed of Mom by herself. For this reason, I decided to use my parents' wedding photo in the dedication. They were so good together. And so there she is, reunited with Dad. Now, that is something that would make her very happy.

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