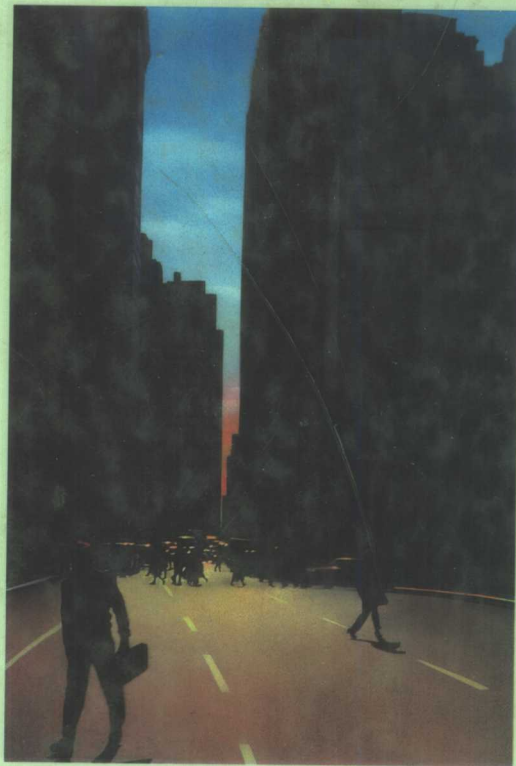


PERSONNEL AND ORGANIZATIONAL PSYCHOLOGY

SECOND EDITION

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PERSONNEL AND ORGANIZATIONAL PSYCHOLOGY

Second Edition

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Preface

In the preface to the first edition we explained that we had elected to write a new book rather than attempt a fourth edition of the old one (*Psychology in Industrial Organizations*, 3rd ed., 1974). It has turned out that this revision differs almost as much from its 1982 precursor as that one did from the earlier book. There are four reasons for this:

1. I/O psychology has never been as vigorous in as many different directions as it has been during the past 10 or so years. It has risen to broad social challenges like those posed by concerns for equal employment opportunity, the proliferation of dual wage-earners in families, the changing nature of jobs in technologically advanced nations, and the inevitable consequences of those changes for skills obsolescence and unemployment. A major revision was required in our attempt to do justice to the astonishingly high quality of work reported by our colleagues in addressing those challenges over the past five years. The results for I/O psychology—which we have sought to reflect in the revision—are seen in more powerful theories and better research and professional practice.

2. The second edition is always the most fun to write. When they get around to it, authors have “distanced” themselves from the original and can look at it a little more objectively. With a cooler eye it becomes clear that the organization could be improved, some choices about content coverage should be modified, more examples should be provided, and that the writing style could be refreshed. We chose to replace much of the original in order to try to attend to these matters.

3. Authors change over time, and their books should reflect this. We like to believe that the changes are in the direction of increased maturity and perspective which can be conveyed to readers.

4. One of us experienced a career change as we began work on this revision: Siegel joined the ranks of university *emeriti*. For the first time he, at least, was in the enviable position of being relatively undistracted by competing demands for his time. We both think this added a dimension of freshness to what we have done.

So much for the generalities. Colleagues will judge whether, in fact, we have done justice to our field; students will judge whether we

have done so clearly and in a way that holds their interest. Now let's get specific.

We have retained the book's title, *Personnel and Organizational Psychology*, and its basic tripartite structure: Introduction, Personnel Psychology, and Organizational Psychology. The overall level of topic treatment in this revision is higher than before, reflecting what we see as the increased sophistication of research and theory in the field and increased complexity of the issues with which it grapples. Although the content is tougher, we have tried to make the book more readable and student-oriented. Our imaginary reader is an undergraduate who, perhaps, has previously taken one other psychology course.

We address two comments particularly to *students*.

First, you will notice that we do not end our chapters with conventional summaries rehashing the chapter's content. We have, instead, substituted two mechanisms that we believe will accomplish the purposes of summary sections and add uniquely to your appreciation of the issues we discuss. (a) Every chapter is followed by a set of study questions that replaces the typical summary. We urge you not to ignore these, to write out your answers instead of answering mentally, and to evaluate (or have another student in the class evaluate) your written answers by comparing them with the text discussion and supplementary class notes. (b) Several chapters end with a Conclusions section; most also contain intermediate sections variously labeled Integration, Unanswered Questions, or Conclusions. These are intended to convey a feeling for the "big picture"; that is, how topics relate to one another and the research directions we see for the future.

Second, although we have attempted to be clear and interesting, we have not written down to you. We expect you to think as you read; we do not offer simple lists of prescriptive "solutions" to complex matters for you to memorize. Also, we know that certain chapters are more difficult than others, but none requires you to have a specialized background. Some, like Chapters 2 and 3 (which present the rudiments of research design, statistics, and measurement theory) may seem relatively difficult because we discuss issues with which you are relatively unfamiliar. Others, like Chapters 9 (Employee Selection) and 15 (Leadership) may consider issues which, though familiar to you, are presented from a new (to you) perspective. Throughout all chapters you may wish that we spoke less of research findings and theories. Nevertheless, we hope by the time you finish the book that you will see I/O psychology as we do: as vigorous, stimulating in its approach to questions and issues, timely, and socially valuable.

The following comments are addressed particularly to our *colleagues*.

The book's primary organizing concept continues to be *performance*. As before, its structure (after the three introductory chapters) follows in two directions. The discussion of personnel topics moves from issues in defining and measuring performance, to performance prediction, to facilitation. The discussion of organizational factors in performance moves progressively from the individual to the group to the organizational perspective. Although we have not changed the basic organization, the changes we have made are far from cosmetic. We have attempted a number of improvements as noted below.

Section I. Introduction

Chapter 2 introduces readers to research designs and data processing. Recognizing that this can be tough sledding for students who have not had prior contact with statistics, we have attempted to build the chapter around research questions that they will find interesting. Chapter 3 does more with correlation and rudimentary measurement theory than many other I/O texts do in an introductory chapter. We do this because we chose to (a) introduce the concepts of reliability and validity earlier than we had previously introduced them and (b) provide a context for thinking about measurement error and bias to which we could refer in succeeding chapters.

Section II. Personnel Psychology

As a general observation, EEO considerations (which are introduced in Chapter 1) permeate seven of the eight chapters in this section. This means that we have spread out our discussion of these considerations among the various contexts (selection, performance evaluation, training, etc.) to which they pertain.

Part A. Defining and Measuring Performance. Once again, we begin this section with an entire chapter (4) on job analysis. It has been elaborated for this revision by further discussion of job analysis methods and an expanded treatment of job families and synthetic validity to introduce the topic of validity generalization. Furthermore, we have added a fairly extensive section on the comparable worth controversy.

The basic content of Chapter 5 (Criterion Development) is not vastly different from that in the earlier edition. However, we like the approach here (which builds upon our earlier introduction of measurement concepts and validity) better.

Our presentation of performance appraisal (Chapter 6) bears little resemblance to that in the previous edition. In addition to

trying to present more complete and coherent coverage of the usual topics than we had earlier, we have added sections on (a) self, subordinate, and peer appraisals, (b) rater training, including the implications of rater error training and rater accuracy training, and (c) feedback.

Part B. Predicting Performance. The sequence of chapters has been changed for this section; validity and prediction are now covered as the final rather than the initial topics.

We continue to discuss assessment centers in Chapter 7 (Tests), although we now describe them in the general context of work samples. We introduce readers to metaanalysis in this chapter in order to accommodate the important and relatively recent findings on test validity.

Employment interviews and biodata predictors (Chapter 8) are discussed in the general context of alternative predictors in the EEO sense. This chapter now includes added sections on (a) EEO considerations, (b) realistic job previews (which we include in the portion in interviewing), and (c) such miscellaneous predictors as letters of recommendation and reference checks, self-assessment, and accomplishment records.

Besides moving the Validity and Prediction chapter (Chapter 9) to the end of this chapter block, we have redone its internal structure and included large new sections on validity generalization, fairness, and utility.

Part C. Facilitating Performance. There are only two chapters in this Part (10, Personnel Training, and 11, Human Factors in Performance), but they are both rather long. And both have been totally reorganized and rewritten.

Training is now developed as a topic from the preceding discussions of factors influencing performance; the discussions of needs analysis, program design, and evaluation are greatly expanded. (The latter, for example, now includes the Solomon four-group and time series designs.) The final section of this chapter discusses current issues: EEO considerations, training the HCU, and the training implications of obsolescence (retraining, updating, and career development).

Our approach to human factors now has six major divisions: (a) engineering psychology and equipment design, (b) stress and fatigue as organizing concepts, (c) potential stressors in the physical work environment, (d) work schedules (shift, compressed, and flexitime), (e) safety, and (f) new issues and directions (robotics and computerization).

Section III. Organizational Psychology

Although the content has been elaborated as noted below, the sequence of chapters in this section remains as it was with one exception: The final two chapter topics from the original edition (Organization Development and Organizational Change) are now combined into a single chapter which, we believe, provides a more coherent conclusion to the book. Each division of Section III now contains two chapters.

Part A. Individual Perspective. There are four major changes to Chapter 12 (Work Motivation): (a) the discussion of need theories has been shortened, recognizing their historical but diminished practical implications; (b) a new section on need achievement theory has been added; (c) the section on organization behavior management has been expanded; (d) the discussion of cognitive theories has been greatly expanded.

Our treatment of job satisfaction and employee attitudes (Chapter 13) has been considerably reworked from the earlier version. In addition to expanding the discussion of the consequences of job satisfaction in the context of life satisfaction (introduced back in Chapter 11), we now have additional new sections on social influence theory, increasing the level of job satisfaction, and on job involvement and organizational commitment.

Part B. Group Perspective. We have made two major additions to Chapter 14 (Group Processes), one theoretical and the other applied. Hackman and Morris's group performance effectiveness theory is now discussed. So too are quality circles.

As part of the general updating of the chapter on leadership (Chapter 15) we have added an introductory section distinguishing leadership from management, and a comprehensive discussion of recent theoretical trends including substitutes for leadership, implicit theories of leadership, and the implications of attribution research.

Part C. Organizational Perspective. Mintzberg's organization theory is now given extended coverage in Chapter 16 (Organization Theory). Our final chapter (17, Organization Development and Change) is less wordy than the original two chapters and in addition now includes a discussion of team building.

With an undergraduate reader in mind, we have endeavored to present a comprehensive, up-to-date, and balanced overview of I/O psychology without being encyclopedic. Our judgments in these matters are revealed in the foregoing description of how we have (and have not) changed the book. Certain judgments about what consti-

tutes a balanced treatment are matters of personal preference in which considerable variation can be tolerated. Others are more important in their effect upon a book's teachability, fairness, and accuracy in representing its subject matter. We have tried to pay particular attention to the latter; we are confident you will let us know how well we succeeded.

We are pleased to acknowledge several persons who contributed to the revision. Rosemary Lowe contributed many of the ideas and much of the manuscript for Chapter 4 (Job Analysis). Chapters 12 to 17 in particular benefited from the astute critical comments of two of our colleagues at Louisiana State University: Greg Dobbins and Dirk Steiner. The entire manuscript was improved as a result of editorial suggestions made by Myrna Lane of Southern University. Two I/O graduate students (also at LSU), Jeanne Russell and Joan Gaspar, were invaluable library researchers and made helpful suggestions on each chapter. Mrs. Linda A. Ford probably learned more about index preparation than she wanted to know. And we were particularly fortunate also to have the benefit of two superbly conscientious external reviewers: Terry Beehr at Central Michigan University and Raymond Noe at the University of Minnesota. We may yet regret that we did not accept more of their suggestions.

Laurence Siegel
Irving M. Lane

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Section One

Introduction

Chapter 1

What Are We Studying?

Chapter 2

Research

Chapter 3

Correlation and Measurement

Welcome to our book. We wrote it because we wish to share our enthusiasm for psychology in general and for our particular specialty, industrial/organizational (I/O) psychology.

It is easy to be enthusiastic about psychology. It provides the excitement of gaining new knowledge about behavior with the gratification of being able, through applying that knowledge, to improve human conditions. Additionally, it offers a way of thinking about the world, of formulating questions, gathering and evaluating information, drawing conclusions, and using these conclusions to ask still further questions. Finally, of all of the fields of knowledge concerned with advancing our understanding of behavior, psychology is unique in being both a science and a profession.

The professional psychologists who deliver psychological services do so with a scientific perspective: professional practice is applied research. Solving a real problem in the real world (like excessive absenteeism, "burnout" among air traffic controllers, training the hard-core unemployed, and so on) requires that the issues be defined, alternative solutions be evaluated, and the optimal solution implemented. The answers at each step come from research.

As an applied science, I/O psychology rests on a body of basic research and theory about behavior in general and behavior in organizational contexts in particular. The relationships between the basic

and applied aspects of the science are reciprocal. Basic theory is tested both in laboratories and out in the field, but it originates in both places. Thus, I/O psychology both draws from and contributes to the broader base of knowledge about behavior—even in nonorganizational settings. This book is about a uniquely challenging and pertinent field, where science and its applications are merged to address the human issues appropriate to the one third of our adult lives that most of us devote to work.

Welcome.

Chapter 1

What Are We Studying?

Psychology is usually defined as the scientific study of behavior. This means that psychology uses scientific inquiry to discover the facts and principles underlying behavior in order better to understand how and why organisms behave as they do. Although scientific understanding can be a goal in itself, *applied* psychology uses its understanding of behavior professionally; that is, to help real people deal with real issues. In their own work, individual psychologists may choose to tilt more toward psychology as a science or as a profession. However, many choose a specialty field requiring them to maintain both orientations.

Industrial/organizational (I/O) psychology is one such field. It focuses on understanding the behavior of persons in organizational settings and applying its knowledge to enhancing organizational effectiveness. Although the organizational setting most studied by I/O psychology is work (i.e., business and industry), the field also encompasses the activities of people in other kinds of organizations.

The following job description taken from the *Dictionary of Occupational Titles (DOT)* (about which you will read more in Chapter 4) captures the diversity of activity of I/O psychologists.

PSYCHOLOGIST, INDUSTRIAL-ORGANIZATIONAL

Develops and applies psychological techniques to personnel administration, management, and marketing problems. Observes details of work and interviews workers and supervisors to establish physical, mental, educational, and other job requirements. Develops interview techniques, rating scales, and psychological tests to assess skills, abilities, aptitudes, and interests as aids in selection, placement, and promotion. Organizes training programs, applying principles of learning and individual differences, and evaluates and measures effectiveness of training methods by statistical analysis of production rate, reduction of accidents, absenteeism, and turnover. Counsels workers to improve job and personal adjustments. Conducts research studies of organizational structure, communication systems, group interactions, and motivational systems, and recommends changes to improve efficiency and effectiveness of individuals, organizational units, and organization. Investigates problems related to