

Contents

Preface v

Part 1 Measurement and Conceptualization

1 THE MEASUREMENT PROBLEM: A GAP BETWEEN THE LANGUAGES OF THEORY AND RESEARCH

Hubert M. Blalock, Jr. 5

- 1.1 *The Operationalism Controversy* 7
- 1.2 *Theory, Measurement, and Replication* 13
- 1.3 *Measurement and Causal Representations* 19
- 1.4 *General versus Auxiliary Theories* 23

2 A CAUSAL APPROACH TO THE STUDY OF MEASUREMENT ERROR

Paul M. Siegel and Robert W. Hodge 28

- 2.1 *Analysis of Univariate Statistics* 29
- 2.2 *Analysis of Bivariate Statistics When True Scores Are Known* 36
- 2.3 *Analysis of Bivariate Statistics When True Scores Are Unknown* 46
- 2.4 *Random Errors in the Three-variable Case* 51
- 2.5 *Points of Departure for Further Investigations of Causal Representations of Imperfect Data* 53

3 ATTITUDE MEASUREMENT *Harry S. Upshaw* 60

- 3.1 *The Nature of Measurement* 61
- 3.2 *Cognitive, Behavioral, and Affective Attitude Variables* 69
- 3.3 *Attitude-scale Construction* 73
- 3.4 *Direct Ordinal-scale Construction* 74
- 3.5 *Direct Interval-scale Construction: The Category Scale* 76
- 3.6 *Direct Ratio-scale Construction* 78
- 3.7 *The Law of Comparative Judgment* 80
- 3.8 *The Law of Categorical Judgment* 85
- 3.9 *The Thurstone Scale* 90
- 3.10 *The Likert Scale* 94
- 3.11 *The Semantic Differential* 97
- 3.12 *The Guttman Scalogram Model* 98
- 3.13 *Conclusion* 106

4 CONCEPTUALIZATION AND MEASUREMENT IN THE STUDY OF SOCIAL STRATIFICATION

Elton F. Jackson and Richard F. Curtis 112

- 4.1 *A Conceptual Orientation to Social Stratification 114*
- 4.2 *The Measurement of Rank and Social Status 117*
- 4.3 *The Measurement of Status Inconsistency and Vertical Mobility 134*
- 4.4 *Summary 144*

Part 2 Design and Analysis in Comparative Research

5 THEORY BUILDING AND CAUSAL INFERENCES

Hubert M. Blalock, Jr. 155

- 5.1 *What Kind of Theory? 155*
- 5.2 *The Construction of Causal Models 161*
- 5.3 *Testing for Spurious Relationships 174*
- 5.4 *Nonadditive Models and Interaction 178*
- 5.5 *Evaluating Relative Importance of Variables 186*
- 5.6 *Laws Versus Generalizations to Populations 192*
- 5.7 *Concluding Remarks 196*

6 A NEW LOOK AT CORRELATION ANALYSIS

Raymond Boudon 199

- 6.1 *Dependence Coefficients, Regression Coefficients, and the Identification Problem 202*
- 6.2 *Are Dependence Coefficients Always Identifiable? 204*
- 6.3 *Interpretation of Dependence Coefficients 206*
- 6.4 *Illustrations 209*
- 6.5 *Problems of Estimation 213*
- 6.6 *Dependence Analysis in the Case of Dichotomous Variables 216*
- 6.7 *The Effect of Correlation between Independent Variables on a Dependence Analysis 220*
- 6.8 *Dependence Analysis in the Case of Nonadditivity 221*
- 6.9 *Applications of Dependence Analysis to Panel Data 227*
- 6.10 *Conclusion 233*
- Appendix: Proof of the Theorem 233*

7 SOME THOUGHTS ON COMPARATIVE METHOD IN CULTURAL ANTHROPOLOGY *Raoul Naroll 236*

- 7.1 *Idiographic and Nomothetic Studies 237*
- 7.2 *Leading Methods in Cross-cultural Studies 239*
- 7.3 *Causal Analysis of Correlations 244*
- 7.4 *Societal Unit Definition 248*
- 7.5 *Sampling Bias 253*
- 7.6 *Galton's Problem 258*
- 7.7 *Data Quality Control 262*
- 7.8 *Categorization 267*
- 7.9 *Conclusion 273*

8 SAMPLING THEORY AND PROCEDURES

Bernard Lazerwitz 278

- 8.1 *Simple Random Sampling 279*
- 8.2 *Sample Size Determination 285*
- 8.3 *Nonsampling Errors 287*
- 8.4 *Stratified Simple Random Sampling 288*
- 8.5 *Systematic Selection 295*
- 8.6 *Cluster Sampling 298*
- 8.7 *Sampling with Probability Proportional to a Measure of Size 308*
- 8.8 *The Sampling Equation 310*
- 8.9 *A Simplified Model for the Sampling Errors of Cluster Samples 311*
- 8.10 *Specific Sample Design Techniques 313*
- 8.11 *Concluding Remarks 326*

Part 3 Experimental Designs and the Analysis of Change Data

9 ORTHODOX EXPERIMENTAL DESIGNS

John Ross and Perry Smith 333

- 9.1 *Types of Variables 336*
- 9.2 *Unobtrusive Measurements and Treatments 340*
- 9.3 *Pitfalls 344*
- 9.4 *Generalizability 348*
- 9.5 *Simple Designs 352*
- 9.6 *Classic Designs 373*
- 9.7 *Conclusion 385*

10 HYPOTHESIS VALIDITY AND EXPERIMENTAL LABORATORY METHODS

James A. Wiggins 390

- 10.1 *Experimenter Variation 396*
- 10.2 *Subject Variation 403*
- 10.3 *Manipulation Variation 412*
- 10.4 *Measurement Variation 417*
- 10.5 *Concluding Remarks 422*

11 THE MATHEMATICAL STUDY OF CHANGE

James S. Coleman 428

- 11.1 *Change in Quantitative Variables 433*
- 11.2 *Change in Qualitative States 459*
- 11.3 *Conclusion 475*

NAME INDEX 479

SUBJECT INDEX 487