

Contents

Preface	xv
About the Editors	xvii
Acknowledgments	xix
Introduction	1

Part 1 Statistical Issues

1 Missing Data Techniques and Low Response Rates: The Role of Systematic Nonresponse Parameters <i>Daniel A. Newman</i>	7
Organization of the Chapter	8
Levels, Problems, and Mechanisms of Missing Data	8
Three Levels of Missing Data	9
Two Problems Caused by Missing Data (External Validity and Statistical Power)	9
Missingness Mechanisms (MCAR, MAR, and MNAR)	9
Missing Data Treatments	11
A Fundamental Principle of Missing Data Analysis	11
Missing Data Techniques (Listwise and Pairwise Deletion, ML, and MI)	13
Systematic Nonresponse Parameters (d_{miss} and f_{miss}^2)	14
Theory of Survey Nonresponse	17
Missing Data Legends	21
Legend #1: "Low Response Rates Invalidate Results"	21
Legend #2: "When in Doubt, Use Listwise or Pairwise Deletion"	24
Applications	26
Longitudinal Modeling	26
Within-Group Agreement Estimation	27
Meta-analysis	27
Social Network Analysis	28
Moderated Regression	29

Conclusions	29
Future Research on d_{miss} and f_{miss}^2	30
Missing Data Techniques	31
References	31
Appendix	35
Derivation of Response Rate Bias for the Correlation (Used to Generate Figure 1.1c)	35
2 The Partial Revival of a Dead Horse? Comparing Classical Test Theory and Item Response Theory	37
<i>Michael J. Zickar and Alison A. Broadfoot</i>	
Basic Statement of the Two Theories	38
Classical Test Theory	38
Item Response Theory	40
Criticisms and Limitations of CTT	44
Lack of Population Invariance	44
Person and Item Parameters on Different Scales	45
Correlations Between Item Parameters	46
Reliability as a Monolithic Concept	47
Criticisms and Limitations of IRT	48
Large Sample Sizes	48
Strong Assumptions	49
Complicated Programs	50
Times to Use CTT	50
Small Sample Sizes	50
Multidimensional Data?	51
CTT Supports Other Methodologies	52
Times to Use IRT	53
Focus on Particular Range of Construct	53
Conduct Goodness-of-Fit Studies	53
IRT Supports Many Psychometric Tools	55
Conclusions	56
References	57
3 Four Common Misconceptions in Exploratory Factor Analysis	61
<i>Deborah L. Bandalos and Meggen R. Boehm-Kaufman</i>	
The Choice Between Component and Common Factor Analysis Is Inconsequential	62
The Component Versus Common Factor Debate: Methodological Arguments	66
The Component Versus Common Factor Debate: Philosophical Arguments	68
Differences in Results From Component and Common Factor Analysis	69

Orthogonal Rotation Results in Better Simple Structure Than Oblique Rotation	71
Oblique or Orthogonal Rotation?	71
Do Orthogonal Rotations Result in Better Simple Structure?	72
The Minimum Sample Size Needed for Factor Analysis Is... (Insert Your Favorite Guideline)	74
New Sample Size Guidelines	76
The “Eigenvalues Greater Than One” Rule Is the Best Way of Choosing the Number of Factors	79
Discussion	83
References	85
4 Dr. StrangeLOVE, or: How I Learned to Stop Worrying and Love Omitted Variables	89
<i>Adam W. Meade, Tara S. Behrend, and Charles E. Lance</i>	
Theoretical and Mathematical Definition of the Omitted Variables Problem	91
Violated Assumptions	96
More Complex Models	97
Path Coefficient Bias Versus Significance Testing	100
Minimizing the Risk of LOVE	102
Experimental Control	102
More Inclusive Models	103
Use Previous Research to Justify Assumptions	103
Consideration of Research Purpose	104
References	105
5 The Truth(s) on Testing for Mediation in the Social and Organizational Sciences	107
<i>James M. LeBreton, Jane Wu, and Mark N. Bing</i>	
Baron and Kenny’s (1986) Four-Step Test of Mediation	110
Condition/Step 1	111
Condition/Step 2	111
Condition/Step 3	111
Condition/Step 4	112
The Urban Legend: Baron and Kenny’s Four-Step Test Is an Optimal and Sufficient Test for Mediation Hypotheses	113
The Kernel of Truth About the Urban Legends	113
Debunking the Legends	116
Legend 1: A Test of a Mediation Hypothesis Should Consist of the Four Steps Articulated by Baron and Kenny (1986)	116
Legend 2: Baron and Kenny’s (1986) Four-Step Procedure Is the Optimal Test of Mediation Hypotheses	120

	Legend 3: Fulfilling the Conditions Articulated in the Baron and Kenny (1986) Four-Step Test Is Sufficient for Drawing Conclusions About Mediated Relationships	122
	Suggestions for Testing Mediation Hypotheses	124
	Structural Equation Modeling (SEM) as an Analytic Framework	124
	Summary of Tests of Mediation	127
	A Heuristic Framework for Classifying Mediation Models	129
	Summary	135
	Conclusion	136
	Author Note	136
	References	137
6	Seven Deadly Myths of Testing Moderation in Organizational Research	143
	<i>Jeffrey R. Edwards</i>	
	The Seven Myths	144
	Myth 1: Product Terms Create Multicollinearity Problems	144
	Myth 2: Coefficients on First-Order Terms Are Meaningless	146
	Myth 3: Measurement Error Poses Little Concern When First-Order Terms Are Reliable	148
	Myth 4: Product Terms Should Be Tested Hierarchically	150
	Myth 5: Curvilinearity Can Be Disregarded When Testing Moderation	151
	Myth 6: Product Terms Can Be Treated as Causal Variables	156
	Myth 7: Testing Moderation in Structural Equation Modeling Is Impractical	158
	Myths Beyond Moderation	159
	Conclusion	160
	References	160
7	Alternative Model Specifications in Structural Equation Modeling: Facts, Fictions, and Truth	165
	<i>Robert J. Vandenberg and Darrin M. Grelle</i>	
	The Core of the Issue	167
	AMS Strategies	170
	Equivalent Models	170
	Nested Models	174
	Nonnested Alternative Models	177
	Summary	179
	AMS in Practice	181
	Summary	186
	References	187
8	On the Practice of Allowing Correlated Residuals Among Indicators in Structural Equation Models	193
	<i>Ronald S. Landis, Bryan D. Edwards, and Jose M. Cortina</i>	

Unraveling the Urban Legend	195
Extent of the Problem	195
Origins	196
A Brief Review of Structural Equation Modeling	197
Indicator Residuals	199
Model Fit	200
An Example	202
Why Correlated IRs Improve Fit	204
Problems With Correlated Residuals	207
Recommendations	209
Summary and Conclusions	211
References	212

Part 2 Methodological Issues

9 Qualitative Research: The Redheaded Stepchild in Organizational and Social Science Research?	219
<i>Lillian T. Eby, Carrie S. Hurst, and Marcus M. Butts</i>	
Definitional Issues	221
Philosophical Differences in Qualitative and Quantitative Research	222
Quantitative and Qualitative Conceptualizations of Validity	223
Caveats and Assumptions	225
Beliefs Associated With Qualitative Research	225
Belief #1: Qualitative Research Does Not Utilize the Scientific Method	225
Belief #2: Qualitative Research Lacks Methodological Rigor	226
Belief #3: Qualitative Research Contributes Little to the Advancement of Knowledge	228
Evaluating the Beliefs Associated With Qualitative Research	229
Evaluation of Belief #1: Qualitative Research Does Not Utilize the Scientific Method	234
Evaluation of Belief #2: Qualitative Research Is Methodologically Weak	236
Evaluation of Belief 2a: Qualitative Research Has Weak Internal Validity	236
Evaluation of Belief #2b: Qualitative Research Has Weak Construct Validity	237
Evaluation of Belief #2c: Qualitative Research Has Weak External Validity	238
Evaluation of Belief #3: Qualitative Research Contributes Little to the Advancement of Knowledge	239
The Future of Qualitative Research in the Social and Organizational Sciences	240
Concluding Thoughts	241
Author Note	242
References	242

10	Do Samples Really Matter That Much? <i>Scott Highhouse and Jennifer Z. Gillespie</i>	247
	Kernel of Truth	248
	Background	251
	History of the Concern	251
	The Research Base	253
	Why Do Samples Seem to Matter So Much?	255
	People Confuse Random Sampling With Random Assignment	255
	People Focus on the Wrong Things	257
	People Rely on Superficial Similarities	259
	Concluding Thoughts	260
	Author Note	262
	References	262
11	Sample Size Rules of Thumb: Evaluating Three Common Practices <i>Herman Aguinis and Erika E. Harden</i>	267
	Determine Whether Sample Size Is Appropriate by Conducting a Power Analysis Using Cohen's Definitions of Small, Medium, and Large Effect Size	269
	Discussion	271
	Increase the A Priori Type I Error Rate to .10 Because of Your Small Sample Size	273
	Discussion	275
	Sample Size Should Include at Least 5 Observations per Estimated Parameter in Covariance Structure Analyses	277
	Discussion	279
	Discussion	280
	Author Note	283
	References	284
12	When Small Effect Sizes Tell a Big Story, and When Large Effect Sizes Don't <i>Jose M. Cortina and Ronald S. Landis</i>	287
	Effect Size Defined	289
	The Urban Legend	290
	The Kernel of Truth	291
	Quine and Ontological Relativism	292
	Contextualization	295
	Inauspicious Designs	296
	Phenomena With Obscured Consequences	299
	Phenomena That Challenge Fundamental Assumptions	300
	The Flip Side: Trivial "Large" Effects	302
	Conclusion	305
	References	306

13	So Why Ask Me? Are Self-Report Data Really That Bad? <i>David Chan</i>	309
	The Urban Legend of Self-Report Data and Its Historical Roots	310
	Problem #1: Construct Validity of Self-Report Data	313
	Problem #2: Interpreting the Correlations in Self-Report Data	316
	Problem #3: Social Desirability Responding in Self-Report Data	319
	Problem #4: Value of Data Collected From Non-Self-Report Measures	325
	Conclusion and Moving Forward	330
	References	332
14	If It Ain't Trait It Must Be Method: (Mis)application of the Multitrait- Multimethod Design in Organizational Research <i>Charles E. Lance, Lisa E. Baranik, Abby R. Lau, and Elizabeth A. Scharlau</i>	337
	Background	338
	Literature Review	342
	Range of Traits Studied	342
	Range of Methods Studied	343
	Not All "Measurement Methods" Are Created Equal	344
	The Case of Multisource Performance Appraisal	345
	The Case of AC Construct Validity	347
	Other Cases	349
	So, Are Any "Method" Facets Really Method Facets?	350
	Discriminating Method From Substance, or "If It Looks Like a Method and Quacks Like a Method..."	351
	References	353
15	Chopped Liver? OK. Chopped Data? Not OK. <i>Marcus M. Butts and Thomas W. H. Ng</i>	361
	Urban Legends Regarding Chopped Data	362
	Urban Legends Associated With the Occurrence of Chopped Data	363
	Urban Legends Associated With Chopped Data Techniques	364
	Urban Legends Associated With Chopped Data Justifications	365
	Literature Review	366
	Chopped Data Through the Years	367
	Prevalence of Chopped Data	370
	The Occurrence of Chopped Data Over Time	371
	Chopped Data Across Disciplines	372
	Types of Chopped Data Approaches	372
	Evaluating Justifications for Using Chopped Data	374
	Insufficient or Faulty Justifications (Myths)	374
	Legitimate Justifications (Truths)	376

Advantages of, Disadvantages of, and Recommendations for Using Chopped Data	377
(Perceived) Advantages of Chopping Data	378
Disadvantages of Chopping Data	378
Recommendations When Faced With Chopping Data	382
Conclusion	383
References	383
Subject Index	387
Author Index	401