

# Contents

Preface .....	vii
Section I Introduction	
1 The LISREL Confirmatory Factor Analytic (CFA) Model .....	3
1. Basic Concepts .....	3
2. The General LISREL Model .....	5
3. The LISREL CFA Model .....	8
4. Summary .....	15
2 Using the LISREL Program .....	16
LISREL Input .....	16
1. Basic Rules .....	16
2. Problem Run Specification .....	17
3. Data Specification .....	17
4. Model Specification .....	21
5. Output Specification .....	28
LISREL Output .....	29
1. Standard Output .....	29
2. Error Messages .....	34
Summary .....	34
Section II Single-Group Analyses	
3 Application 1: Validating a Theoretical Construct .....	37
Hypothesis 1: Self-Concept Is a Four-Factor Structure .....	37
1. LISREL Input .....	41
2. LISREL Output .....	43
3. The Issue of Post Hoc Model Fitting .....	66
Hypothesis 2: Self-Concept Is a Two-Factor Structure .....	66

Hypothesis 3: Self-Concept Is a One-Factor Structure .....	73
Summary .....	80
<b>4 Application 2: Validating a Measuring Instrument .....</b>	<b>81</b>
1. The SDQIII: The Measuring Instrument Under Study .....	81
2. LISREL Input .....	86
3. LISREL Output .....	87
4. Post Hoc Analyses .....	96
5. Summary .....	97
<b>5 Validating Multiple Traits Assessed by Multiple Methods: The Multitrait-Multimethod Framework .....</b>	<b>98</b>
1. Assessment of Contract Validity: The MTMM Matrix .....	98
2. LISREL Input .....	103
3. LISREL Output .....	105
4. Comparison of MTMM Models .....	108
5. Summary .....	121
<b>Section III Multigroup Analyses</b>	
<b>6 Testing for Measurement and Structural Invariance of a Theoretical Construct .....</b>	<b>125</b>
1. Testing for Factorial Invariance: The General Framework .....	125
2. Tests for Invariance Related to Self-Concept .....	127
3. LISREL Input for Multigroup Analyses .....	129
4. Testing Hypotheses Related to Factorial Invariance .....	134
5. Summary .....	141
<b>7 Testing for Item Invariance of a Measuring Instrument .....</b>	<b>142</b>
1. Tests for Invariance Related to the SDQIII .....	142
2. Tests for Invariance Across Ability .....	147
3. Summary .....	154
<b>8 Testing for Invariant Latent Mean Structures .....</b>	<b>156</b>
1. Tests for Invariance Related to Latent Self-Concept Means .....	157
2. Testing for the Invariance of Factor Covariance Structures .....	157
3. Testing for the Invariance of Factor Mean Structures .....	167
4. Summary .....	177
<b>References .....</b>	<b>178</b>
<b>Appendix: Description of Data and Measuring Instruments .....</b>	<b>181</b>
<b>Index .....</b>	<b>183</b>