

# CONTENTS

<b>About the Authors</b>	<b>vii</b>
<b>Series Editor's Introduction</b>	<b>viii</b>
<b>Acknowledgments</b>	<b>x</b>
<b>1. Introduction</b>	<b>1</b>
Overview of the Book	3
Latent Growth Curve Modeling: A Brief History and Overview	4
Model Specification and Parameter Interpretation	5
The Scaling of Time	10
Asynchronous Measurement	13
Assumptions	14
Parameter Estimation and Missing Data	15
Model Evaluation and Selection	18
Statistical Power	20
<b>2. Applying LGM to Empirical Data</b>	<b>22</b>
Data	22
Software	23
Overview of Model-Fitting Strategy	24
Model 0: The Null Model	25
Model 1: Random Intercept	26
Model 2: Fixed Intercept, Fixed Slope	28
Model 3: Random Intercept, Fixed Slope	30
Model 4: Random Intercept, Random Slope	31
Model 5: Multiple-Groups Analysis	34
Model 6: The Conditional Growth Curve Model	35
Model 7: Parallel Process Model	38
Model 8: Cohort-Sequential Designs	42
Model 9: Time-Varying Covariates	46
Model 10: Polynomial Growth Curves	50
Model 11: Unspecified Trajectories	52
Summary	53

<b>3. Specialized Extensions</b>	<b>57</b>
Growth Mixture Models	57
Piecewise Growth	59
Modeling Change in Latent Variables	
With Multiple Indicators	61
Structured Latent Curves	62
Autoregressive Latent Trajectory Models	66
Categorical and Ordinal Outcomes	66
Modeling Causal Effects Among Aspects of Change	68
Summary	70
<b>4. Relationships Between LGM and Multilevel Modeling</b>	<b>71</b>
MLM for Repeated-Measures Data	71
Model Specification	73
Parameter Estimation	74
Model Evaluation	75
Areas of Overlap Between MLM and LGM	75
Areas of Differentiation Between MLM and LGM	77
Software	79
<b>5. Summary</b>	<b>80</b>
<b>Appendix</b>	<b>82</b>
<b>References</b>	<b>84</b>
<b>Index</b>	<b>94</b>