LIST OF FIGURES

Figure 1.1
The Circumplex Model of Emotion as Proposed by Watson & Tellegen (1985) 4

Figure 1.2
Schematic Representation of Intraindividual Variability as Fluctuation and as Change 6

Figure 1.3
Cattell's (1952, 1966) Three-Dimensional Data-Box (Persons × Variables × Occasions) 12

Figure 1.4
Schematic Overview of Age-Related Differences in the Antecedents of Intraindividual Variability in Affect and the Association Between Variability in Affect and Age 26

Figure 3.1
Overview of the General Study Design of Intraindividual Dynamics Project 70

Figure 3.2
Overview of Specific Design and Central Constructs for the Present Study 76

Figure 4.1
Nine-Week Trajectories of Positive Affect (PA) and Negative Affect (NA) for 18 Young and 19 Older Adults (PANAS-Items) 104

Figure 4.2
Schematic Representation of Variability Between and Within Individuals 105

Figure 4.3
Proportions of Within-Person and Between-Person Variance in Day-to-Day Positive and Negative Affect (based on the Intraclass Correlation Coefficient obtained from the Random Coefficient Results of Multilevel Modeling Analyses) 107

Figure 4.4
Age Differences in the Relative Proportions of Within-Person and Between-Person Variance in Day-to-Day Positive and Negative Affect 121

Figure 4.5
Age-Related Differences in Day-to-Day Fluctuation of PA and NA Across 45 Days 122

Figure 4.6
Age-Related Differences in Day-to-Day Variability (Fluctuation) of Hedonic Balance Across 45 Days 125

Figure 4.7
Proportions of Unique and Shared Variance Explained by Age Group and Personality in the Prediction of Variability (Fluctuation) in Positive and Negative Affect 130

Figure 4.8
The Moderating Effect of Age Group on the Within-Person Coupling of Daily Positive and Negative Events with Daily Positive Affect 137

Figure 4.9
Trajectories of Mean Reaction Times (RT) for Hits in Vigilance Task (Raw Data) 143

Figure 4.10
Individual Differences in Within-Person Coupling Between Daily Affect and Daily Vigilance Reaction Time Performance 144

Figure 4.11
Individual Differences in Within-Person Associations Between Daily Affect and Daily Working Memory Reaction Time Performance 148

Figure 5.1
Hypothetical data showing the association of negative affect and reaction time performance at the between-person level (left graph) and both at the between-person and within-person level (right graph) 181

LIST OF TABLES

Table 1.1
Overview of Lifespan Theoretical Propositions Important for the Study of Short-Term Intraindividual Variability 8

Table 1.2
Overview of Two Scenarios about the Association of Intraindividual Variability and Age 21

Table 1.3
Overview of Empirical Findings on Age-Related Differences in Emotional Functioning 23

Table 1.4
Overview of Two Perspectives on the Functional Value of High Levels of Variability 35

Table 1.5
Overview of Theoretical Models on the Resource Allocation Perspective in Emotion–Cognition Coupling (Ordered by General Proposed Mechanism) 48

Table 1.6
Overview of Potential Age-Related Differences in Emotion-Cognition Coupling 51

Table 2.1
Overview of Research Questions and Hypotheses 67

Table 3.1
Daily Assessment Protocol (Sessions lasted 1 hour) 72

Table 3.2
Participation Rates in Daily Sample (*N* = 37) 75

Table 3.3
Overview of Central Baseline and Daily as Well as Control Instruments 79

Table 3.4
Sociodemographic Characteristics of the Daily Dynamics Sample by Age Group 89

Table 3.5
Subjective Health and Intellectual Functioning in the Daily Dynamics Sample by Age Group (*N* = 37) 90

Table 4.1
Characteristics of Within-Person and Observed Between-Person Variability in Daily Affect 106

Table 4.2
Daily Affect Data: Number of Participants with Lack of Variability Across the Daily Assessment Period 108

Table 4.3
Descriptives of Aggregated Day-to-Day Positive Affect, Negative Affect, and Hedonic Balance for Young and Older Adults and Correlation with Chronological Age 109

Table 4.4
Multilevel Modeling Results of Intraindividual Mean Levels of Day-to-Day Positive Affect (PA) as a Function of Age Group 111

Table 4.5
Multilevel Modeling Results of Intraindividual Mean Levels of Day-to-Day Negative Affect (NA) as a Function of Age Group 112

Table 4.6
Fixed Effects Results from Multilevel Modeling on Age-Related Differences in Time-Related Trends of Day-to-Day PA and NA 117

Table 4.7
Results of Repeated Measures Analyses of Variance on Age Group Differences in Day-to-Day Variability (Fluctuation) in PA and NA After Controlling for Time-Related Trends and Mean Daily Affect Levels Across 45 Days 123

Table 4.8
Results of Follow-Up Analyses of Variance on Age Group Differences in Day-to-Day Variability (Fluctuation) in PA and NA After Controlling for Time-Related Trends and Mean Daily Affect Levels Across 45 Days 124

Table 4.9
Results of Hierarchical Multiple Regression Predicting Variability (Fluctuation) in Positive and Negative Affect 128

Table 4.10
Bivariate Correlations for Young and Older Adults Between Intraindividual Variability (Fluctuation) in PA and NA With Trait Indicators of Psychological Well-Being and Happiness 132

Table 4.11
Results from Multilevel Modeling Analyses on Within-Person Coupling and Age-Related Differences in Coupling of Daily Positive Affect with Daily Stress and Events 135

Table 4.12
Results from Multilevel Modeling Analyses on Within-Person Coupling and Age-Related Differences in Coupling of Daily Negative Affect with Daily Stress and Events 138

Table 4.13
Results of Multilevel Modeling Analyses Estimating the Coupling of Daily Affect with Daily Reaction Time Performance in Vigilance 145

Table 4.14
Results of Multilevel Modeling Analyses Estimating the Coupling of Daily Affect with Daily Reaction Time Performance in Working Memory 149

Table 4.15
Fixed Effect Results of Multilevel Modeling Analyses Estimating Individual Differences in the Coupling of Daily Affect with Daily Reaction Time Performance in Vigilance 151

Table 4.16
Fixed Effect Results of Multilevel Modeling Analyses Estimating Individual Differences in the Coupling of Daily Affect with Daily Reaction Time Performance in Working Memory .. 153

Table 4.17
Overview of Research Questions and Summary of Supported and Unsupported Hypotheses .. 156

LIST OF TABLES IN APPENDIX

Table A1
Taxonomies of Intraindividual Variability (in Chronological Order) 225

Table B1
Distribution of Young and Older Participants Across Testing Time Slots 227

Table B2
Translations of Affect Items from PANAS and Circumplex Models 227

Table B3
Descriptive Statistics for Central Aggregated Daily and Trait Variables (*N* = 37) 228

Table B4
Descriptive Statistics for Background and Control Variables (*N* = 37) 229

Table B5
Frequencies of and Commentaries to Endorsed Ratings of Typicality of Daily Testing Period by Age Group 230

Table C1
Descriptives of Daily Positive Affect (PANAS) for Each Participant (Scale: 1–8) 231

Table C2
Descriptives of Daily Negative Affect (PANAS) for Each Individual (Scale: 1–8) 232

Table C3
Descriptives of Daily Hedonic Balance for Each Individual 233

Table C4
Characteristics of Within-Person and Between-Person Variance in Daily Positive and Negative Affect: An Alternative to Nesselroade & Salthouse (2004) 234

Table C5
Multilevel Modeling Results of Predicting Intraindividual Mean Levels of Day-to-Day Hedonic Balance by Age Group Using Full Maximum Likelihood Estimation 235

Table C6
Descriptives of Frequency and Intensity of Daily Positive Affect (PA) and Daily Negative Affect (NA) for Young and Older Adults and Correlation with Chronological Age 236

Table C7
Results of Repeated Measures Analyses of Variance on Age Group Differences in Intensity of Daily Positive and Negative Affect 237

Table C8
Results of Repeated Measures Analyses of Variance on Age Group Differences in Frequency of Daily Positive and Negative Affect 237

Table C9
Results of Fitting a Sequence of Multilevel Growth Models to Day-to-Day Positive Affect 238

Table C10
Results of Fitting a Sequence of Multilevel Growth Models to Day-to-Day Negative Affect 239

Table C11
Random Effects Results and Model Fit from Multilevel Modeling Analyses of Age-Related Differences in Trajectories of Day-to-Day PA and NA Using Full Maximum Likelihood Estimation 240

Table C12
Descriptives of Young and Older Adults' Retrospective Appraisals of Mood Fluctuations During Daily Assessment Phase 241

Table C13
Intraindividual Variability in Positive Affect and Pleasantness Items for Each Age Group 242

Table C14
Intraindividual Variability in Negative Affect and Unpleasantness Items for Each Age Group 243

Table C15
Intercorrelation of Variables Used in Main and Follow-Up Analyses to Predict Variability in PA and NA 245

Table C16
Results of Hierarchical Multiple Regression Predicting Variability in Positive and Negative Affect (after Controlling for Gender, Education, Mean Levels of Daily Affect and Trait Affect Intensity) 245

Table C17
Sequence of Multilevel Models Predicting Daily Positive Affect With Daily Stress and Events 246

Table C18
Sequence of Multilevel Models Examining Age Group Differences in Level and Coupling of Daily PA With Daily Stress and Events 247

Table C19
Random Effect Results from Multilevel Models Predicting Daily Positive Affect by Daily Stress and Events in Total Sample and in Age Group Differences Model 248

Table C20
Sequence of Multilevel Models Predicting Daily Negative Affect With Daily Stress and Events 249

Table C21
Sequence of Multilevel Models Examining Age Group Differences in Level and Coupling of Daily Negative Affect With Daily Stress and Events 250

Table C22
Random Effect Results from Multilevel Models Predicting Daily Negative Affect by Daily Stress and Events in Total Sample and in Age Group Differences Model 251

Table C23
Results from Multilevel Model on Coupling and Age-Related Differences in the Coupling of Daily Hedonic Balance with Daily Stress and Events 252

Table C24
Results of Multilevel Modeling Analyses Estimating Learning in the Daily Vigilance Performance 253

Table C25
Results of Multilevel Modeling Analyses Estimating the Coupling of Daily Hedonic Balance with Daily Reaction Time Performance in Working Memory 254

Table C26
Fixed Effect Results and Fit of Multilevel Modeling Analyses Estimating Individual Differences in the Coupling of Daily Hedonic Balance with Daily Reaction Time Performance in Working Memory 255