# Contents

*Foreword by Stephen W. Porges*  
*Preface*  
*Acknowledgments*  
*Contributors*

## Section One: Central System: Theory, Methods, and Measures

1. **Capturing the Dynamic Endophenotype: A Developmental Psychophysiological Manifesto**  
   *Sidney J. Segalowitz and Louis A. Schmidt*

## Section Two: Central System: Theory, Methods, and Measures

2. **Event-Related Brain Oscillations in Normal Development**  
   *Juliana Yordanova and Vasil Kolev*

3. **Event-Related Potential (ERP) Measures in Auditory Development Research**  
   *Laurel J. Trainor*

   *Michelle de Haan*

5. **Electrophysiological Measures in Research on Social and Emotional Development**  
   *Peter J. Marshall and Nathan A. Fox*

6. **The Use of the Electroencephalogram in Research on Cognitive Development**  
   *Martha Ann Bell and Christy D. Wolfe*
SECTION TWO: AUTONOMIC AND PERIPHERAL SYSTEMS: THEORY, METHODS, AND MEASURES

7 Infant Heart Rate: A Developmental Psychophysiological Perspective
   Greg D. Reynolds and John E. Richards
   173

8 Examining Cognitive Development Using Psychophysiological Correlates: Evidence of a Hierarchy of Future-Oriented Processes Across Measures
   W. Keith Berg and Dana L. Byrd
   213

9 Measuring the Electromyographic Startle Response: Developmental Issues and Findings
   Marie T. Balaban and W. Keith Berg
   257

10 The Measurement of Electrodermal Activity in Children
   Don C. Fowles
   286

SECTION THREE: NEUROENDOCRINE SYSTEM: THEORY, METHODS, AND MEASURES

11 Emotion, Temperament, Vulnerability, and Development: Evidence from Nonhuman Primate Models
   Kristine Erickson, J. Dee Higley, and Jay Schulkin
   319

12 Neuroendocrine Measures in Developmental Research
   Megan R. Gunnar and Nicole M. Talge
   343

SECTION FOUR: DATA ACQUISITION, REDUCTION, ANALYSIS, AND INTERPRETATION: CONSIDERATIONS AND CAVEATS

13 Psychophysiology Principles, Pointers, and Pitfalls
   Anita Miller and James Long
   367

14 Obtaining Reliable Psychophysiological Data with Child Participants: Methodological Considerations
   William J. Gavin and Patricia L. Davies
   424

Index
   449