## Contents

### Part I  The Maternal Voice: A Link Between Fetal and Neonatal Period

1  Maternal Voice and Communicative Musicality: Sharing the Meaning of Life from Before Birth .................................................. 3  
   Colwyn Trevarthen

2  Prenatal Experience with the Maternal Voice ............................... 25  
   Christine Moon

3  The Maternal Voice as a Special Signal for Infants ........................ 39  
   Sandra E. Trehub

4  The Development of Infant Participation in Communication .......... 55  
   Maya Gratier and Emmanuel Devouche

5  Brain Mechanisms in Emotional Voice Production and Perception and Early Life Interactions ......................................................... 71  
   Didier Grandjean

### Part II  The NICU Acoustic Environment and the Preterm Infant’s Auditory System Development

6  The Sound Environments and Auditory Perceptions of the Fetus and Preterm Newborn ............................................................... 91  
   M. Kathleen Philbin

7  The Auditory Sensitivity of Preterm Infants Toward Their Atypical Auditory Environment in the NICU and Their Attraction to Human Voices ........................................... 113  
   Pierre Kuhn, André Dufour, and Claire Zores
### Part III  The Early Vocal Contact in the NICU

8 **Early Vocal Contact: Direct Talking and Singing to Preterm Infants in the NICU** .......................... 133  
Manuela Filippa

9 **Maternal Voice and Its Influence on Stress and Sleep** ..................... 151  
Fabrizio Ferrari, Giovanna Talucci, Luca Ori, Natascia Bertoncelli, Manuela Filippa, and Laura Lucaccioni

10 **Support of Language and Communication Development as a Rationale for Early Maternal Vocal Contact with Preterm Infants** .................................................. 165  
Manuela Filippa and Pierre Kuhn

11 **Recorded Maternal Voice, Recorded Music, or Live Intervention: A Bioecological Perspective** ........... 183  
Joy V. Browne

### Part IV  Family-Centered Music Therapy Experiences in the NICU

12 **Empowering Parents in Singing to Hospitalized Infants: The Role of the Music Therapist** ............... 205  
Helen Shoemark

13 **Sounding Together: Family-Centered Music Therapy as Facilitator for Parental Singing During Skin-to-Skin Contact** .......................... 217  
Friederike Haslbeck and Pernilla Hugoson

### Part V  Early Family-Based Interventions in the NICU

14 **Stress-Sensitive Parental Brain Systems Regulate Emotion Response and Motivate Sensitive Child Care** .................. 241  
James E. Swain

15 **Mother/Infant Emotional Communication Through the Lens of Visceral/Autonomic Learning** .................. 271  
Martha G. Welch and Robert J. Ludwig

16 **Implications of Epigenetics in Developmental Care of Preterm Infants in the NICU: Preterm Behavioral Epigenetics** .......................... 295  
Rosario Montiroso and Livio Provenzi

17 **Family-Based Interventions and Developmental Care Programmes: Rationale, Difficulties and Effectiveness** .......... 311  
Jean-Michel Roué, Stéphane Rioualen, and Jacques Sizun

**Index** .............................................................................................................. 329
Early Vocal Contact and Preterm Infant Brain Development
Bridging the Gaps Between Research and Practice
Filippa, M.; Kuhn, P.; Westrup, B. (Eds.)
2017, XV, 343 p. 30 illus., 22 illus. in color., Hardcover
ISBN: 978-3-319-65075-3