REGRESSION PERIODS
IN HUMAN INFANCY
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Preface

This book has grown out of a loosely formed European project, the intercultural study of infantile regression periods (ISIRP), with the aim to test if indicators of regression can be found at similar ages in a number of different countries and cultures. The idea that motivated this book was initially put forward by Frans X Plooij and Hedwig van de Rijt-Plooij who claimed that 10 periods of regression could be identified during the first 15 months of life, periods that they suspected to be biologically anchored and thus, valid across cultures—a finding that came to be viewed as both challenging and provoking by the scientific community. For the group behind this volume, the researchers in the ISIRP group, this idea created a renewed interest in processes of change in early infancy, and it became a necessity to both replicate and develop a coherent psychobiological theoretical understanding of the phenomenon. These common interests eventually lead to the suggestion of a book that addressed these issues and the first detailed plans were formed at one of the initial group meetings. This was at a symposium held at Göteborg University, Sweden on October 10—11, 1997 (The First Research Conference on Regression Periods in Early Infancy; chair: M. Heimann), a meeting used to discuss both replication studies and current theoretical issues. More specifically, preliminary versions of four papers included in this book were discussed (chapters 2, 4, 5, and 8).
Before a more detailed description of the book and its content is presented, a word of caution is warranted: The term *regression* might be confusing to some readers because of the many different connotations it has. To prevent confusion, the reader is advised to forget these connotations. The term is used here in a very restricted sense, in that it only refers to the return to a high frequency of mother–infant contact, characteristic of the earliest period, and the phenomenon *regression period* is positive in the sense that it announces progress. It is this understanding of the term that is used throughout this volume—a volume that can be seen as organized in three different parts.

Part I is made up of chapters 1 to 4 of which the first is a brief introduction that presents some more detailed background regarding how to understand the term *regression periods*. Next, chapters 2, 3, and 4 present studies from Spain (Sadurní, & Rostan), England (Woolmore & Richer) and Sweden (Lindahl, Heimann, & Ullstadius). These replication studies form the core of this book and can even be said to constitute the central motivation for putting the book together. They were all part of the ISIRP group, the aim being to test if similar indicators of regression where to be found at the same ages in a various countries and cultures. Efforts were made to match those procedures used in the original Dutch study (see van de Rijt-Plooij & Plooij, 1992, 1993) although cultural variations also created important differences between the studies. Some studies, like the Spanish study (chap. 2), almost exactly replicate the original Dutch findings, whereas others (e.g., the Swedish study, chap. 4) can be said to replicate the findings on a general level with differences when it comes to details. However, taken together, chapter 2 to 4 present evidence in favor of the existence of several specific regression periods during a child’s first 15 months.

Part II of the book (chaps. 5–7) consists of three chapters authored by Frans X. Plooij together with Hedwig H. C. van de Rijt-Plooij and colleagues. These chapters encompass further in-depth studies and analyses that broaden our understanding of how the regression periods affects early developmental processes. In chapter 5 Plooij and van de Rijt-Plooij discuss different kinds of noise in the dataset and possible consequences of not adequately dealing with such influences. Important findings might be overseen if factors influencing the data are not adhered to. They especially focus on factors that might be difficult to control for (e.g., extremely strict regimes in caring for the young infants or concealed mental illness in the mother). Factors like these exert strong influence and might, according to the authors, conceal the expected regression periods. Among
other issues, this chapter re-analyses data previously published by others (see Weerth & van Geert, 1998) claiming that the dataset supports different conclusions when noise factors are sorted out.

Chapter 6 (by Plooij, van de Rijt-Plooij, van der Stelt, van Es, & Helmers) expands our understanding regarding the regression phenomenon by investigating the complex interactions between the 10 regression periods and the CNS-immune system. More specifically, the chapter explores the hypothesis that the distribution of illnesses over development should be non-linear and display a multimodal distribution during the first 20 months of life—an idea that is also partly confirmed by the analysis. Peaks in illnesses and regression periods seem to be linked, although the exact mechanism behind this finding is largely unknown. The last of the three chapters in Part II of the book (chap. 7) presents a report on a possible link between early regression periods and a negative developmental outcome. More specifically, the chapter discusses data that indicate a connection between the Sudden Infant Death Syndrome (SIDS) and observed regression periods. In summary, the authors claim that the frequency distribution of the number of SIDS victims over age shows a multimodal distribution for girls, not for boys. At present, we have no good explanation for this effect. This is clearly an observation that warrants further study.

The final chapters (Part III of the book: chaps. 8 & 9) tackle more theoretical issues. In chapter 8, Trevarthen and Aitken present an impressive review of current developmental data from several fields: embryology, genetics, psychobiology, and developmental psychology. Their integrative attempt contrasts modern dynamic systems theory with a more traditional biological view of “intrinsically regulated development in an organism”. The outcome of this comparison and discussion will probably be surprising to some people. It is not automatically so that a “modern” theory always provides a better answer than a “traditional” one. Trevarthen and Aitken define their starting point in the following way: “In short, we ask what kind of biological theory, at what level of organismic self-regulation, do we need to understand what infants do, how they conceive and care about their world, and how they change themselves and their world.” In understanding how the infant becomes an active agent in the world they propose that we are born with a system they call IMF (Intrinsic Motive Formation). This system is part of how the immature central nervous system works and has an important regulative function. Moreover, they also suggest that the regression periods that are the core objects of study in this volume might be better thought of as Periods of Rapid Change (PRCs).
Finally, in chapter 9, Frans X. Plooij presents an integrative view of the book, as well as an in depth theoretical discussion based on the observations presented in this volume. The title of this last chapter reflects this integration; “The Trilogy of Mind” refers to the need of adhering to motivational processes based on thinking, feeling, and desires (or cognition, affection, and conation). This is discussed within a framework largely based on Power’s (1973) hierarchical perceptual control theory. In this view, it becomes possible to include gene controlled processes with individual development and early interactional experiences.

It is my hope that the picture created by this volume will help to broaden our knowledge regarding phases of change or instability during early infancy. There seems to be more such phases than previously believed. However, the evidence put forward here is far from final. As becomes obvious when reading the chapters, there are still many unanswered questions. But this fact does not preclude a conclusion saying, based on our current evidence, that regression periods ought to be considered as a real phenomenon and dealt with accordingly whenever developmental processes in infancy are discussed. The reader should read each chapter and judge the data presented, as well as the arguments put forward. Hopefully, the reader will reach a conclusion similar to that put forth herein.

—Mikael Heimann

REFERENCES

Contributors

Dr. Kenneth Aitken is a lead clinician developing the Child and Adolescent Learning Disability-Mental Health Service for Glasgow. He has particular clinical and research interests in infant development, neurodevelopmental disorders, the autistic spectrum, and ADHD. He has published widely in the area of developmental psychopathology. He is a past director of the Association for Child Psychology and Psychiatry.

Mikael Heimann (PhD, 1988, Pennsylvania State University) is a professor of Clinical Child and Adolescent Psychology, University of Bergen, Norway, and head of the Regional Competence Centre for Child and Adolescent Psychiatry, Bergen, Norway. His research focuses on infant cognition, and early social and communicative development as well as developmental psychopathology.

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**Frans X. Plooj** (PhD, 1980, University of Groningen, the Netherlands) worked with Jane Goodall in the Gombe National Park, Tanzania, East Africa, on infant development in free-living chimpanzees; with Robert Hinde in the MRC unit on the Development and Integration of Behaviour, University Subdepartment of Animal Behaviour in Madingley, Cambridge, England; as a researcher at the department of Developmental Psychology, University of Nijmegen, the Netherlands, studying human mother–baby interaction in the home environment; as head of the department of Research and Development at an institute of Child Studies of the City of Amsterdam; and as professor at the Department of Developmental and Experimental Clinical Psychology, University of Groningen. Now he is director of the International Research Institute on Infant Studies at Arnhem, the Netherlands, and director of Kiddy World Promotions B.V., a consultancy serving companies producing any products related to children.

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**Marta Sadurní**, PhD, is a permanent lecturer at the Department of Psychology and Director of the Research Unity on Child and Adolescent Development and Family Support at the University of Girona (Spain). Her main
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**Colwyn Trevarthen**, a New Zealander, is Professor (Emeritus) of Child Psychology and Psychobiology in the Department of Psychology of the University of Edinburgh, where he has taught since 1971. A biologist and psychologist, Trevarthen has published on neuropsychology, brain development and, in the last 30 years, on communication in infancy. Professor Trevarthen has an Honorary Doctorate in Psychology from the University of Crete, and he has been elected Fellow of the Royal Society of Edinburgh and Member of the Norwegian Academy of Sciences and Letters.

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**Jeannette M. van der Stelt** was trained as a speech therapist. She graduated in 1977 in Special Education at the University of Amsterdam. As staff member of the Institute of Phonetic Sciences she has published on early speech development since 1979. Her thesis (1993) presents a sensorimotor approach of the mother–infant system in its development toward speech. Presently, her research focuses on precursors of communicative disorders, early diagnosis, and early intervention (0–24 months).
Bert van Es (PhD, 1988, University of Amsterdam) is an Associate Professor at the Korteweg-de Vries Institute for Mathematics of the University of Amsterdam. His research focuses on mathematical statistics, in particular nonparametric statistics, functional estimation, and inverse problems.

Ashley Woolmore completed his undergraduate degree at Reading University, UK (1994) and his PhD at Oxford University (1998). During his time there he became interested in ethological models and collaborated with Dr. John Richer on the study of regression periods and the impact of maternal postnatal depression. Dr. Woolmore is currently working at Milton Keynes General Hospital, UK.