

CHAPTER 1

Children in Bioecological Landscapes of Development

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BIOECOLOGY AND DEVELOPMENT

Children are embedded in a complex web of diverse social and physical contexts. At the time we organized Volume 4 in this seventh edition of the *Handbook of Child Psychology and Developmental Science*, the relational bioecological developmental systems perspective was the prevailing theoretical framework in our field (Bronfenbrenner & Morris, 2006; Lerner, 2006). Absent a paradigm shift in developmental science, we suspect that it will continue so. In consequence, the chapters in Volume 4 are guided by the relational developmental systems paradigm (see Overton & Molenaar, Chapter 1, this *Handbook*, Volume 1), and we ordered them in a manner that generally conforms to the multiple levels of the bioecological model, beginning with the near proximal contexts in which children find themselves and moving through to distal contexts that influence children in equally compelling, if less immediately manifest, ways. The environmental structure that envelops the child can be viewed as hierarchical, with lower-level more proximal contexts nested within higher-level more distal contexts, all of which shape how children develop.

This volume of the *Handbook* is centrally concerned with the people, conditions, and events outside children that affect children and their development. To understand children's development it is both necessary and desirable to embrace all of these social and physical contexts. Contemporary developmental contextualist theories of human development share core principles that underpin this explanatory stance: The child's environment is complex, multidimensional, and structurally organized

into interlinked contexts; children actively contribute to their development; the child and the environment are inextricably linked, and contributions of both child and environment are essential to explain or understand development; the child's development is multidetermined; change over time in the child, the environment, and relations between child and environment is normative. Because of the foregoing principles, development is probabilistic.

In accord with these principles, bioecological theory defines *development* as a joint function of process, person, context, and time (Bronfenbrenner & Morris, 2006). Characteristics and qualities of the developing person, including, for example, age, gender, temperament, and intellect, interact with characteristics of the environment to influence the nature and structure of developmental outcomes. Developmental settings distinguish process and context. *Processes* refer to dynamic interactions that the developing person experiences. Development proceeds within a hierarchically organized, interlinked set of four nested contexts or systems. Each system has the potential to influence other systems. With respect to context, the microsystem encompasses patterns of activities, roles, and interpersonal relationships that the child experiences in face-to-face settings defined by specific physical and material parameters. At this most proximal and innermost context are patterns of interaction (proximal processes) between children and their immediate social milieus (e.g., parents, siblings, teachers) and physical environments (e.g., objects, places). Distinct microsystems afford children opportunities to experience different types of activities that alone and in combination foster individual

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development. Microsystems enable children to take on different roles and identities and establish relationships with various adults. Mesosystems constitute processes and links between two or more microsystems; in a sense mesosystems comprise systems of microsystems. The exosystem encompasses linkages between aspects of the environment the child does not directly encounter, but which influence development through lower-level micro- and mesosystems. At the outermost circle of developmental influences are overarching macrosystem patterns of beliefs, values, customs, and living conditions (e.g., culture, religion, the socioeconomic organization of society). The macrosystem is not separate from children's more immediate environments; rather, it permeates and colors exo-, meso-, and microsystems. Understanding the meaning and impact of proximal influences on the child often requires placing them within the broader macrosystem in which they are found (Bornstein, 1995). Furthermore, the impact of influences from one level can be moderated by factors that compose other linked levels. Finally, crosscutting all of these systems is time, the chronosystem. Effective time frames range from moment-to-moment exposures to developmental processes to periodicities over days or weeks to macro time frames of the life course, generations, or historical eras.

One notable consequence of multiple linkages across different ecosystems that envelop the child is the probabilistic nature they define for development. Another is the requirement that scientists adopt a frankly multidisciplinary approach to understanding child development. As bioecological theory provides a rich and generative framework for understanding the growth of children, it guides the organization of this volume. Multiple systems and numerous disciplines describe the bioecological landscapes of the child.

A BRIEF TOUR OF VOLUME 4

Although we have not formally divided Volume 4 into sections, this collection of chapters can be seen to arrange itself into five divisions that identify spheres of influence vis-à-vis children and their development. The first constitutes a broad overview of time and history, laying out the conceptual underpinnings and setting the stage for the rest. The ensuing substantive chapters add contemporary surveys of separate constituents of the relational developmental systems perspective in developmental science. The second group of chapters focuses on the immediate

social ecology of children with their significant others, notably parents, families, and peers. The third part sets children in their most common everyday institutional and group circumstances of childcare and school as well as activities, work, and media. The fourth section complements the third in setting children in their equally prevalent and more encompassing community and physical contexts of home and neighborhoods. The fifth section of this volume casts children and child development in even broader contexts of socioeconomic status, medicine, law, government, war and disaster, culture, and history. The final chapter overviews what precedes in terms of assessment and measurement.

In Chapter 2, "Human Development in Time and Place," Glen H. Elder Jr., Michael J. Shanahan, and Julia A. Jennings set the scene of human development in terms of life course theory, bringing contexts and temporality to the full flower of children's lives. They explain life-span concepts and perspectives of human development including, notably, social pathways, cumulative processes, and durations, trajectories, transitions, and turning points. These paradigmatic principles of life course theory turn on human agency and social options, the impact of historical time and place, and societal change in the life course.

The second conceptual section of this volume focuses on children with their significant others, specifically parents, families, and peers. In Chapter 3, "Children's Parents," Marc H. Bornstein first identifies parenting for parents and for children and then considers parenting theory and research in historical and future perspective. He proceeds next to describe biological and social parents and parenting cognitions and practices and then evaluates evidence for parenting effects on children through various designs and experiments. Bornstein afterward explores the multiple determinants of parenting and assesses all-important practical issues related to parenting.

In Chapter 4, "Children in Diverse Families," Lawrence Ganong, Marilyn Coleman, and Luke T. Russell define a panoply of contemporary families and theoretical and conceptual perspectives related to children living with unmarried parents, bereaved children, children in single-parent families after divorce, stepfamilies, gay and lesbian parents, families constructed by assisted reproductive technologies, and children reared by grandparents. The authors conclude with a discussion of the chief challenges and concerns in the study of children and development in these nontraditional, but increasingly frequent, family configurations.

In Chapter 5, "Children in Peer Groups," Kenneth H. Rubin, William M. Bukowski, and Julie C. Bowker discuss

children's peer interactions, relationships, and groups. Using a multilevel model, they describe conceptually how various peer relationships, such as friendship, popularity, and acceptance/rejection, are integrally related, how they are shaped by individual characteristics, culture, and contexts, and how they influence children's development. The authors give careful consideration throughout to issues of measurement and the reciprocal nature of individual attributes and peer relationships.

The third part of Volume 4 sets children in their most common everyday circumstances of institutional childcare and schools and public domains of activities, work, and media. In Chapter 6, "Early Childcare and Education," Margaret Burchinal, Katherine Magnuson, Douglas Powell, and Sandra Soliday Hong review nonparental care today, and use the dimensions of childcare—use, type, quality, and quantity—to describe early childhood experiences. They also address strategies that ensure quality and access to childcare including via public policy.

In Chapter 7, "Children at School," Robert Crosnoe and Aprile D. Benner attend to the role of schools in children's development and the significance of schooling in children's lives. They consider links between education and inequality, schools as educational institutions, and social, emotional, and academic outcomes of schooling. School structure, composition, and curriculum and instruction are all central issues for children, as are children's social relationships in school. Throughout the chapter, Crosnoe and Benner also address desegregation, school transitions, and public health in schools.

In Chapter 8, "Children's Organized Activities," Deborah Lowe Vandell, Reed W. Larson, Joseph L. Mahoney, and Tyler W. Watts delineate children's organized activities in historical and global contexts. Children engage in a breadth of activities, whose prevalence, processes, quality, and selection are all important to their development. Child, family, and program characteristics predict children's participation in organized activities. Vandell and colleagues cover after-school programs, extracurricular activities, unsupervised out-of-school time, self-care, and unsupervised time with peers.

In Chapter 9, "Children at Work," Jeremy Staff, Arnaldo Mont'Alvao, and Jeylan T. Mortimer review demographic precursors of child and adolescent employment and the sectors where children work. They then survey perspectives on children's work, including whether children and adolescents should work, the effects of paid work on adolescent achievement and adjustment, and the injurious as well as beneficial consequences of work for children.

In Chapter 10, "Children and Digital Media," Sandra L. Calvert reviews parasocial relationships and interactions when children go online. She examines the history and evolution of media platforms, the ecology of the digital world, and media access. She then characterizes media exposure and the role of media in various domains of children's lives including imaginative play and creativity, sleep and concentration, violence, stereotyping, and health. Calvert concludes with policy issues related to early media exposure, the V-chip, and the commercialization of childhood.

The fourth section of Volume 4, which complements the third, examines children in their equally prevalent but more encompassing social and physical settings. In Chapter 11, "Children in Diverse Social Contexts," Velma McBride Murry, Nancy E. Hill, Dawn Witherspoon, Cady Berkel, and Deborah Bartz introduce implications of ethnicity for theory and research in child development. They then review demographic shifts in the United States, universal and cultural-specific parenting practices, and parenting multiethnic children in terms of identity, third cultures, adoptions, and developmental outcomes in academics and friendships.

In Chapter 12, "Children's Housing and Physical Environments," Robert H. Bradley shows how affordances of settings and the construction of life niches, in which housing quality, materials, water provision, sanitation, food storage/refrigeration, electricity, ventilation and cooking facilities, indoor and outdoor contaminants, noise, and crowding all contribute to children's development. In addition, he discusses materials at hand for play and equipment for physical activity, home literacy and numeracy environments, and other physical supports to the development of children.

In Chapter 13, "Children in Neighborhoods," Tama Leventhal, Veronique Dupéré, and Elizabeth Shuey provide a survey of how and why neighborhoods matter for children's development in terms of their socioeconomic structure as well as the institutional resources and social processes that exist within them. The authors also attend to how neighborhoods intersect with other contexts, namely families, schools, and peers, and also with key individual characteristics, such as gender, ethnicity, and biological/psychological vulnerabilities. The chapter concludes by addressing neighborhoods as a unit of intervention for improving children's development.

The fifth section of Volume 4 casts children and child development in even broader frameworks of socioeconomic class, medicine, law, government, war and disaster, culture, and history. In Chapter 14, "Children

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and Socioeconomic Status,” Greg J. Duncan, Katherine Magnuson, and Elizabeth Votruba-Drzal define resources based on socioeconomic status (SES) in terms of family and parental income (poverty, wealth), schooling, and occupation. They point to macro trends in family SES and summarize what is known about SES and child development from within-family variation, natural experiments, and empirical research. From these considerations, the authors derive key policy implications.

In Chapter 15, “Children in Medical Settings,” Barry Zuckerman and Robert D. Keder summon an historical perspective on medical care for children, looking at selective impacts of the shifting epidemiology of childhood disease, the hospital environment, and disparities in health care and health. These authors adopt a life-course approach to health development beginning with the prenatal environment and include the material environment and stress, health behaviors, and maternal health as all related to children’s health. Zuckerman and Keder are concerned as well with primary care and prevention, and they discuss children with chronic illnesses and technology-dependent children.

In Chapter 16, “Children and the Law,” Elizabeth Cauffman, Elizabeth Shulman, Jordan Bechtold, and Laurence Steinberg undertake to review the legal treatment of children and the family, including children in custody decisions, adoption, foster care, and the termination of parental rights. They look at the law with respect to children as plaintiffs and emancipated minors; they review zero-tolerance policies and the school-to-prison pipeline, children and adolescents in the justice system, the legal regulation of minors’ medical decision-making capabilities, and exceptions to parental authority in judging children’s maturity in medical and societal contexts.

In Chapter 17, “Children and Government,” Kenneth A. Dodge and Ron Haskins underscore the multiple serious roles of government in children’s lives. They serially address the problems of poverty and inequality, government programs for children, Social Security, the war on poverty, and government spending on children. A broad swath of government policies for children (including economic and budget constraints) falls under their purview, and Dodge and Haskins conclude with a plea for evidence-based policy making.

In Chapter 18, “Children in War and Disaster,” Ann S. Masten, Angela J. Narayan, Wendy K. Silverman, and Joy D. Osofsky underscore the challenges children face from war and natural and technological disasters. They review effects of variation in exposure, determinants of exposure, and diversity of responses. The outcomes for children are

set in terms of risk and resilience models, and the authors also analyze cascading consequences and the intergenerational transmission of trauma. Masten and colleagues review intervention and prevention research strategies to remediate these debilitating circumstances on children.

In Chapter 19, “Children and Cultural Context,” Jacqueline J. Goodnow and Jeanette A. Lawrence outline the meanings of culture and cultural level influences on children. They cover universals as well as situational bases of similarity and difference; common units of analysis in place, activities, and people; continuity and change; and uniformity and diversity. They also consider influences from single and multiple cultural contexts and acculturation for children’s development.

In Chapter 20, “Children in History,” Peter N. Stearns looks at the emergence of the history of childhood and childhood history as a field of study. Topics that dominate this perspective include periodization of the life span, children in agricultural societies, the role of religion, and specific historical periods (such as the early modern centuries and modern industrial childhoods). Contemporary changes in non-Western societies and the globalization of childhood are other pivotal issues Stearns addresses.

The final chapter in Volume 4 provides an overview of the volume by focusing on appraisal and measurement. In Chapter 21, “Assessing Bioecological Influences,” Theodore D. Wachs revisits the bioecosystem structures surrounding the child, stressing methodological implications of the bioecological framework. He addresses children in real-world situations; the use of “social addresses”; integrating higher-order contexts, persons, and time into the study of proximal processes; and integrating across process, person, context, and time. Other topics include measurement precision, the utilization of cost-efficient ecological measures, interpretability, and applications of the process-person-context-time framework to intervention.

All of the chapters in Volume 4 generally adhere to the same overall organization in moving from (or between) theory to research to policy. They commonly adopt a relational developmental systems perspective as embodied in the bioecological approach. Each treatment covers historical ideas, a diversity of theoretical perspectives, research methodologies, developmental trajectories, emerging issues, and directions for future theory and research. Each focuses on research from the United States but includes the rest of the world as well. Where appropriate, each concludes with reflections on policy and calls to action for developmental scientists.

CONCLUSIONS

The clear lesson imparted by chapters in Volume 4 of the *Handbook of Child Psychology and Developmental Science* is that children's development is dynamic, multifaceted, and complex. Failing to appreciate the many forces affecting development has impeded our understanding of children generally and specifically in the five spheres of influence overviewed by this volume. As these chapters illustrate, it is only by considering how each context contributes to development in relation to other contexts, in relation to person characteristics, and in relation to time that our field will move forward. All of the authors in Volume 4 are mindful of the complexity inherent across the bioecological landscapes of children's development. To realize their stated goals required a deep as well as a broad understanding of the full scope of children's development—moving beyond the comfort of one's own zone of expertise on a particular social ecology to incorporate wisdom from other areas of developmental science and other disciplines. It also required facility with a large, diverse, and sophisticated methodological toolbox. The authors of these chapters do not limit themselves to single measures, methods, or approaches.

These lessons are vital to progress in developmental science. They are also critical for producing research that informs policies and practices to improve children's health and well-being (Huston, 2008). The contexts of children's lives are often viewed as points of intervention. The call for evidence-based policy making echoes across chapters in Volume 4 and contributes to the contemporary dialectic. At least that is our goal.

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