

A photograph of a man, a child, and a dog walking away on a path through a forest. The man is on the right, holding the child's hand. The child is in the center, wearing a red harness. A dog is on the right, walking ahead of them. The path is dirt and leads into a bright, sunlit area. The trees are tall and leafy, creating a canopy over the path. The overall mood is peaceful and natural.

Human Development

SIXTH EDITION

JAMES W. VANDER ZANDEN



Human Development

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JAMES W. VANDER ZANDEN

THE OHIO STATE UNIVERSITY

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HUMAN DEVELOPMENT

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PREFACE



These are exciting times for the field of human development. Researchers are increasingly moving toward a contextual perspective that is consistent with the complexity of development. While not losing sight of individual variation, developmentalists are expanding their horizons to encompass the environmental (social and ecological) context in which behavior occurs. Simultaneously, they are placing greater reliance on time-extended research designs and enlarging the breadth of their research objectives. More and more developmentalists are reaching out to disciplines other than developmental psychology and embracing a multidisciplinary approach that draws on concepts and contributions from sociology, social psychology, anthropology, women's studies, biology, medicine, and social history. Moreover, researchers are exhibiting an increased readiness to study ethnic populations that have hitherto been largely ignored. The net result is that the field has much to offer society in its efforts to cope with serious social problems. Individual students also benefit by seeing that the study of human development is contingent on a diverse body of knowledge which incorporates a variety of views and theoretical approaches. In sum, human development is emerging as a truly dynamic and relevant field for the twenty-first century.

As I have noted in the prefaces to previous editions, I deem myself fortunate to be associated with the field of human development. It has afforded me a great many insights that have benefited my own life and that of my family. Several years prior to

beginning the first edition, my wife became ill and subsequently died. Our younger son was then an infant and his older brother a toddler. Consequently, except for teaching part-time at Ohio State University, I dropped out of academic life for about five years and functioned more or less as a full-time parent. I found that researching and writing *Human Development* (and subsequently seeing it through later editions) offered profound help in the rearing of my sons. In the early editions, the boys were frequently about, playing in the yard or the living room while I worked on the book in the adjoining den. As is characteristic of youngsters, they were periodically in and out of the den on one matter or another. From time to time, I would take breaks and visit or play with them and their friends. Time has marched on. My sons are now young adults, have received their Ph.D. degrees in computer science (one from Cornell University at age 24 and the other from the University of Illinois at age 25), and are living happy, productive, and rewarding lives. Even though they are no longer home, we continue to share a warm, caring, and rich relationship.

As a male who reared his youngsters in a single-parent home, I find truth in the argument that equal opportunity for women in public spheres is severely impaired by a gender-role differentiation in which women are assigned primary responsibility for raising children. The childrearing years are also the years that are typically most critical in the development of a career. During this period of the life span, professors secure tenure at good universities; lawyers and accountants become partners in top firms; busi-

ness managers make it onto the fast track; and blue-collar workers find positions that generate high earnings and seniority. Rearing youngsters is time consuming and disruptive of the activities that commonly make for an orderly and successful career. It is a tragic commentary on our society that those individuals most immediately charged with caring for and raising children are penalized for doing so in countless social and economic ways, particularly in the workplace. I, too, encountered these difficulties. Yet, in hindsight, I would not exchange the rewards and satisfactions I found in parenthood for all the laurels offered by the academic community.

Seeing this textbook through its various editions has been a highly personal and satisfying experience for another reason. As a youngster, I experienced considerable abuse. Indeed, at two-and-a-half years of age I underwent surgery to repair severe internal damage and bleeding inflicted by my father. Due to this and continuing abuse, it is hardly surprising that I had a troubled childhood and adolescence. Nor is it accidental that, in adulthood, I became intrigued by the study of human behavior and made it my career. *Human Development* is a testimony to my own search for answers and my dedication to the betterment of the human condition.

I hope that students who read this textbook find answers to questions they have about their own lives, much as I have done in researching and writing it. It is my earnest desire that, through courses in human development and developmental psychology, people may move toward Abraham Maslow's ideal and become self-actualized men and women. From such courses, they should acquire a new vision of the human experience and a sharpening of their observational and analytical skills. In doing so, perhaps they may come to lead fuller, richer, and more fruitful lives.

Most of us share the belief that education is not the sum of eight, twelve, sixteen, or even twenty years of schooling. Instead, it is a lifelong habit, a striving for growth and wise living. Education is something we retain when we have lost our texts, burnt our lecture notes, and forgotten the minutiae we have learned for an exam. Therefore, textbooks that are bereft of controversy and unanswered questions leave students believing that facts are the stuff of education. From these textbooks students derive a false sense of security borne of cramming their heads with information rather than refining their minds with analysis. Consequently, many of the

boxes in this edition of *Human Development* offer students an opportunity to think critically about social issues and how these issues relate to their personal lives and world. In sum, the stuff of human development is ultimately real people living their lives in a real world.

Organization and Focus

This textbook views human physical, cognitive, and socioemotional growth as an unending, dynamic process. In terms of its approach to the study of the life span, *Human Development* emphasizes development in context. This approach focuses on the development of people within families and the larger ecological context implied by this theme. By examining the groundbreaking work of developmentalists Urie Bronfenbrenner, K. Warner Schaie, and Paul Baltes, students will fully understand the complex network of "developmental tasks" that shape us as we move through the life span.

Much like the course of human life, this new edition reflects both continuity and change. As in previous editions, the sixth edition of *Human Development* features a chronological approach to studying the life span. It consists of nineteen chapters. The first two chapters orient the student to the central methods and theories utilized in the study of human development. Chapter 3 examines beginnings—reproduction, the prenatal period, and birth—and Chapter 19 deals with death. The fifteen intermediate chapters are organized by age periods. Within each of these intermediate units, the first chapter typically addresses physical and cognitive development and the second chapter discusses issues in psychosocial development.

After five editions, it was obvious that *Human Development* would become unwieldy and unmanageable were I simply to add more and more topics and materials. Consequently, I undertook a careful program of prudent pruning and so gained the space necessary to introduce and integrate new, cutting-edge topics and materials. In doing so, I have merged the key materials of the chapter entitled "Biological Foundations" in earlier editions with appropriate related materials in other chapters and I have merged the treatment of the neonatal period with that of infancy. In sum, the text of the sixth edition has been streamlined in order to provide continuity with discreet change.

Thinking Critically

As stated above, a course on human development should do more than provide students with a body of scientific findings. Rote memorization of definitions and facts does not “do justice” to the dynamic nature of this subject matter. We must encourage students to think critically and creatively about their own development and how it is shaped by the world around them. This text will provide students with a deeper understanding of the human experience and the factors that mold our life course.

In addition, *Human Development* will aid students in honing their analytical and observational skills. These new abilities, however, will not be limited only to the classroom. Students will emerge from this course with skills and strategies for overcoming the numerous obstacles that face them throughout the life span. Examples of this kind of material include discussions of the nature–nurture controversy (Chapter 2), genetic counseling and testing (Chapter 3), the use of Caesareans (Chapter 3), differing theories of language acquisition (Chapter 5), the impact of poverty on children (Chapter 6), child day-care arrangements (Chapter 6), nature–nurture controversies centering on intelligence (Chapter 7), sources of gender identities (Chapter 7), the “essential nature” of men and women (Chapter 7), spanking children (Chapter 8), lesbian and gay parenthood (Chapter 8), recovered memories in cases of sexual abuse (Chapter 8), the impact of television and video games on children (Chapter 8), Carol Gilligan’s thesis regarding the self-esteem of adolescent girls (Chapter 11), issues regarding sexual orientation (Chapter 14), theories of homosexuality (Chapter 14), “the state of the American family” (Chapter 14), the impact on youngsters of maternal employment (Chapter 14), “male menopause” (Chapter 15), family violence (Chapter 16), allocation of scarce resources among generations (Chapter 17), aging and cognitive functioning (Chapter 17), and euthanasia (Chapter 19).

Commitment to Diversity

In the past, *Human Development* was lauded for its sensitivity to issues of race, class, gender, and ethnicity. The sixth edition continues this legacy by integrating information on cross-cultural, minority, and gender differences wherever possible. Many

texts relegate this material to one section, thus perpetuating the marginalization that is so prevalent in our society. The sixth edition of *Human Development* utilizes an integrative approach to demonstrate our commitment to diversity. As teachers and students, constant attention to these issues is an imperative component of our task.

Specific examples of this approach include multiple mothering (Chapter 6), poverty (Chapters 6, 14, and 17), family patterns (Chapters 8 and 14), trans-racial adoptions (Chapter 9), racial awareness and prejudice (Chapter 10), at-risk behaviors among adolescents (Chapter 12), availability of jobs (Chapters 12, 14, and 16), and retirement (Chapter 18). Specific examples of extensive cross-cultural coverage are cultural variability (Chapter 1), the impact of traumatic events on young children (Chapter 2), fatherhood (Chapter 3), bilingualism (Chapter 5), kibbutzim (Chapter 6), attachment (Chapter 6), Piagetian stages (Chapter 9), academic achievement (Chapter 10), puberty rites (Chapter 11), age-grade systems (Chapter 13), continuity and discontinuity in gender characteristics (Chapter 15), aging (Chapter 17), life expectancies (Chapter 17), respect accorded the elderly (Chapter 18), and bereavement (Chapter 19).

New to the Sixth Edition

Expanded Section Coverage on Crucial Issues in Life Span Development

In addition to adding coverage of such topics as the child’s theory of mind (Chapter 7) and leaving home (Chapter 14), the sixth edition of *Human Development* is unrivaled in its detailed coverage of numerous critical issues. Each chapter features new materials and expands coverage of important new findings. This unique quality manifests our commitment to students’ learning and overall breadth of knowledge. Included are the treatment of cognitive social learning theory and its critique (Chapter 2); material on birthing centers, *doula* services, and the shortening of maternal hospital stays (Chapter 3); a revised box on Sudden Infant Death Syndrome (SIDS) to reflect new and recent research and recommendations by government agencies (Chapter 4); the treatment of infant disabilities in a box entitled “Reducing Retardation and Boosting Babies’ Brains” (Chapter 5); comprehensive coverage of Carol Gilligan’s groundbreak-

ing research on self-esteem in adolescent young women (Chapter 11); extended focus on the public debate regarding teenage pregnancies, major revisions of materials on sexually transmitted diseases, and added discussion of at-risk behaviors among teenagers (Chapter 12); added treatment of the “baby-buster” or “generation X” (Chapter 13); substantial revisions of materials dealing with singles, gay males and lesbians, theories of homosexuality, and work (Chapter 14); new materials on menopause, male hormonal midlife changes, and personality development in adulthood (Chapter 15); and revised discussions of AIDS and euthanasia (Chapter 19).

Practical and Informative Boxed Material In an effort to highlight the most current issues in a comprehensive and accessible manner, new boxes are included in almost every chapter of the text. These boxes reinforce important points in the text’s coverage and allow students to understand the real-life applications implicit in the study of human development. New boxes cover 200 years of childhood (Chapter 1), the consequences of maternal drug abuse (Chapter 4), the consequences of maternal depression (Chapter 5), bilingualism (Chapter 5), the impact of poverty on American youngsters (Chapter 6), correlation coefficients (Chapter 7), spanking children (Chapter 8), lesbian and gay parenthood (Chapter 8), adoption (Chapter 9), latchkey children (Chapter 10), attention-deficit hyperactivity disorder (Chapter 10), sexual harassment of adolescent young women (Chapter 12), the sexual behaviors of Americans (Chapter 15), combating the effects of aging through physical fitness (Chapter 17), and grandparents parenting their grandchildren (Chapter 18).

Positive Approach to Adulthood and Aging The text features an extensive, honest discussion of the aging process. Topics discussed include the latest research and theory on biological aging, Alzheimer’s disease, memory and cognitive functioning, elderly satisfaction, theories of adjustment, institutional care, psychosocial aging, and the bereavement of widows and widowers.

The Most Current Research and Theory *Human Development’s* sixth edition includes comprehensive discussions of the ground broken by inspirational researchers and theorists such as Bruner, Maccoby, Elkind, Gilligan, Ainsworth, Sroufe, Kübler-Ross,

Kagan, Belsky, Baumrind, and Izard. By featuring the most current findings in research and theory, we may truly see evidence of our increased understanding of the life span.

New Photo Program In thumbing through this new edition, one will undoubtedly note the beauty and creativity of our new photo program. The photos and illustrations utilized in *Human Development* display our continued commitment to diversity. Sensitivity to race, class, gender, ethnicity, and ability (or disability) is of tantamount importance, and this is reflected in the photos we have chosen for this edition.

New Appendix In response to the diverse needs of instructors, we have placed detailed biological information about genetics and heredity in this Appendix. While some professors maintain that this material is crucial to students in the introductory human development course, others feel that it is only necessary for reference. We hope that the Appendix format solves this problem and meets the needs of all current and future users of the sixth edition. This material can be used to supplement the text’s existing coverage of the biological foundations of human development (Chapter 2).

New References The sixth edition is not only a useful teaching tool but a thoroughly updated resource for students and instructors as well. Hundreds of new references have been added to the sixth edition of *Human Development*. These new elements are integrated throughout the text.

Supplements

Human Development is accompanied by a complete ancillary package of the highest caliber. The *Student Study Guide* and computerized microguide, conceptualized and crafted by Corrine Crandell and Thomas Crandell of Broome Community College, have been thoroughly revised to include some exciting new features such as flashcards in addition to chapter outlines, summaries, key terms, learning objectives, and more self-tests to aid the student in preparing for exams. The *Instructor’s Manual/Test Bank*, thoroughly revised by Dana Gross of St. Olaf College, is an excellent resource and reference for the professor, providing learning objectives, alternative ideas for teaching the material that are both creative and rigorous, discussion questions, lecture

outlines, student projects, and class exercises. New to this edition is information about testing. The computerized test bank is available in Macintosh, IBM DOS, and Windows formats. The supplements package also includes the recently updated overhead transparency package to accompany *Human Development*.



Acknowledgments

In truth, authors have but a small part in the production of textbooks. Consider the thousands upon thousands of researchers who have dedicated themselves to the scholarly investigation of human behavior and life-span development. Consider the labors of countless journal editors and reviewers who assist them in fashioning intelligible reports of their research findings. And, consider the enormous effort expended by the personnel of research-grant agencies and reviewers who seek to funnel scarce resources to the most promising studies. Indeed, a vast number of scholars across the generations have contributed to our contemporary reservoir of knowledge regarding human development. Textbook authors simply seek to assemble the research in a coherent and meaningful manner.

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James W. Vander Zanden



Human Development

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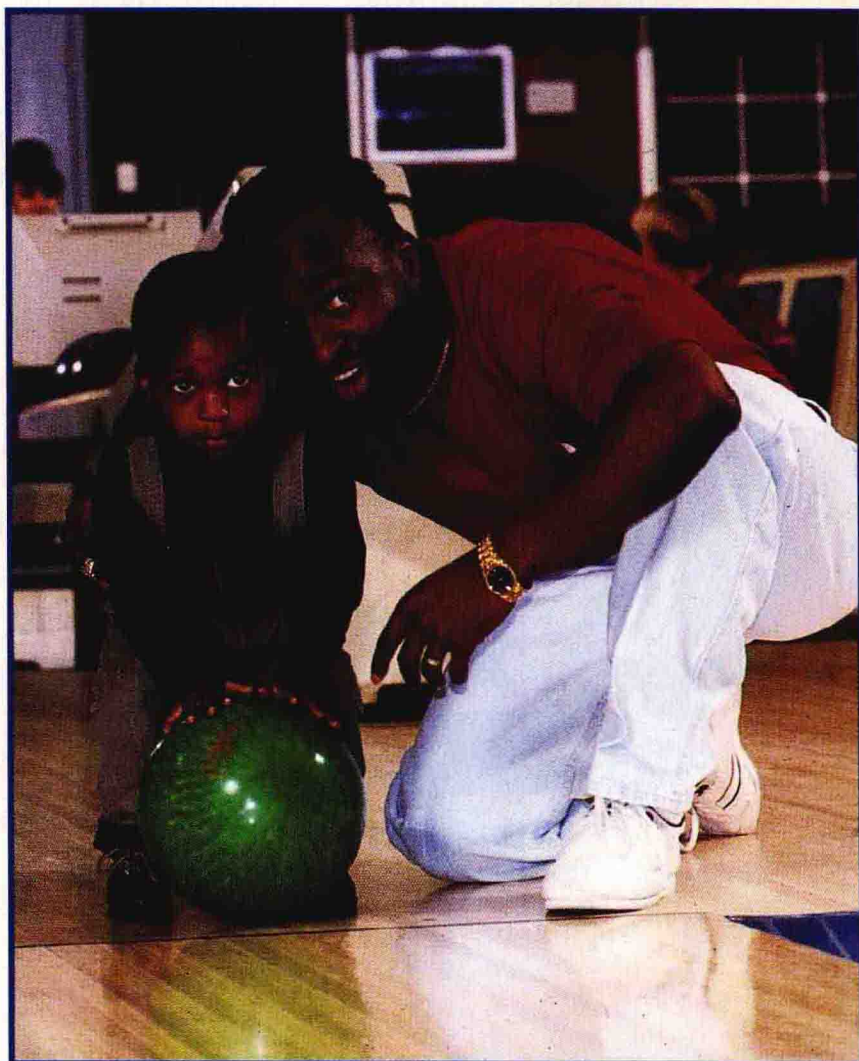
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Part One



THE STUDY
OF HUMAN
DEVELOPMENT

Chapter 1



INTRODUCTION



sign posted in a Western cowboy bar says: “I ain’t what I ought to be, I ain’t what I’m going to be, but I ain’t what I was.” This thought captures the sentiment that lies behind much contemporary interest in the study of human development. It is hoped that with knowledge, we will be able to lead fuller, richer, and more fruitful lives. Knowledge offers us the opportunity to improve the human condition by helping us to achieve self-identity, freedom, and self-fulfillment.

The motto in the bar directs our attention to still another fact—that to live is to *change*. Indeed, life is never static but always in flux. Nature has no fixed entities, only transition and transformation. According to modern physics—particularly quantum mechanics—the objects you normally see and feel consist of nothing more than patterns of energy that are forever moving and altering. From electrons to galaxies, from amoebas to humans, from families to societies, every phenomenon exists in a state of continual “becoming.” Hence, when you were conceived, you were smaller than the period at the end of this sentence. Over the span of sixty, seventy, eighty, or even ninety years, all of us undergo dramatic changes as we pass from the embryonic and fetal stages through infancy, childhood, adolescence, adulthood, and old age. We start small, grow up, and grow old, just as countless generations of our forebears have done. Change occurs across many dimensions—the biological, the psychological, and social. Life-span perspectives of human development focus upon long-term sequences and patterns of change in human behavior.

■ THE MAJOR CONCERNS OF SCIENCE

■ A FRAMEWORK FOR STUDYING DEVELOPMENT

Major Domains of Development / Processes of Development / The Context of Development / The Timing of Developmental Events

■ PARTITIONING THE LIFE SPAN: CULTURAL AND HISTORICAL PERSPECTIVES

Cultural Variability / Historical Conceptions of the Life Span

■ THE NATURE OF DEVELOPMENTAL RESEARCH

The Longitudinal Method / The Cross-Sectional Method / The Case-Study Method / The Experimental Method / The Social Survey Method / The Naturalistic Observation Method / The Cross-Cultural Method

■ ETHICAL STANDARDS FOR HUMAN DEVELOPMENT RESEARCH

■ BOXES

Childhood: Two Hundred Years of Profound Change / Tips for Observing Children

Contradictory as it may seem, life also entails *continuity*. At age 70 we are in many ways the same persons that we were at 5 or 25. Many aspects of our biological organism, our gender roles, and our thought processes carry across different life periods. Indeed, features of life that are relatively lasting and uninterrupted give us a sense of identity and stability over time. As a consequence of such continuities, most of us do not experience ourselves as just so many disjointed bits and pieces but rather as wholes—larger, independent entities that possess a basic oneness. Accordingly, much of the change in our lives is not accidental or haphazard.

Scientists refer to the elements of change and constancy over the life span as *development*. **Development** is defined as the orderly and sequential changes that occur with the passage of time as an organism moves from conception to death. Development includes those processes that are biologically programmed within the organism and those processes by which the organism is changed or transformed through interaction with the environment.

What we have been saying adds up to the following statement: *Human development over the life span is a process of becoming something different while remaining in some respects the same*. Perhaps what is uniquely human is that we remain in an unending state of development. Life is always an unfinished business, and death is its only cessation (Baltes, 1987; Montagu, 1981).

The Major Concerns of Science

The most incomprehensible thing about the world is that it is comprehensible. ALBERT EINSTEIN

Life-span development has traditionally been the primary province of psychologists. Most commonly the field is called *developmental psychology* or, if focused primarily on children, *child development* or *child psychology*. Psychology itself is often defined as the scientific study of behavior and mental processes. Thus, developmental psychology is that branch of psychology that deals with how individuals change with time while remaining in some respects the same. Child psychology is that branch of psychology that studies the development of children.

Yet over the past twenty-five years the field of life-span development has become multidisciplinary

(Baltes, 1987; Clausen, 1991; Gottlieb, 1991; Hinde, 1992). The field now encompasses not only psychology but biology, women's studies, medicine, sociology, and anthropology. Recently, social historians have joined the list. Whereas psychologists look primarily at individuals, social historians look at institutions. By working together, psychologists and historians can examine the interaction between the two domains (Elder, Modell & Parke, 1993).

We should avoid the tendency to view the various academic disciplines as somehow separated into "watertight" compartments. At best, academic disciplines are only loosely defined. The borderlines are so vague that researchers give little thought to whether they are "invading" another discipline's field of study. Such overlap encourages a freshness of approach and functions as a stimulus in advancing the frontiers of knowledge. Researchers increasingly welcome aid and collaboration from any qualified person, whether or not that person is in the same discipline.

Social and behavioral scientists who study human development focus on four major issues. First, they undertake to *describe* the changes that typically occur across the human life span. When, for instance, does the child generally begin to speak? What is the nature of this speech? Does speech alter with time? In what sequence does the average child link sounds to form words or sentences?

Second, scientists seek to *explain* these changes—to specify the determinants of developmental change. What behaviors, for instance, underlie the child's first use of words? What part does biological "pretuning" or "prewiring" play in the process? What is the role of learning in language acquisition? Can the process be accelerated? What factors produce language and learning difficulties?

Third, scientists are interested in the *prediction* of developmental changes. What are the language capabilities of a 6-month-old infant likely to be at 14 months of age? Or what are the expected consequences for language development if a child suffers from phenylketonuria (PKU)? In this inherited disorder, which occurs in about 1 out of every 12,000 live births, the child lacks an enzyme needed to metabolize phenylalanine (an amino acid found in protein foods). The result is the buildup of substances that are toxic to the central nervous system. PKU commonly produces mental retardation. In severe cases children are impaired in the development of language and may never learn to speak at