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# Human Development

00/01



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## Human Development 00/01

*Twenty-Eighth Edition*



### EDITOR

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*University of Maryland, Baltimore County*

Dr. Karen Freiberg has an interdisciplinary educational and employment background in nursing, education, and developmental psychology. She received her B.S. from the State University of New York at Plattsburgh, her M.S. from Cornell University, and her Ph.D. from Syracuse University. Freiberg has worked as a school nurse, a pediatric nurse, a public health nurse for the Navajo Indians, an associate project director for a child development clinic, a researcher in several areas of child development, and a university professor. She is the author of an award-winning textbook, *Human Development: A Life-Span Approach*, which is now in its fourth edition. Dr. Freiberg is currently on the faculty at the University of Maryland, Baltimore County.

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Members of the Advisory Board are instrumental in the final selection of articles for each edition of ANNUAL EDITIONS. Their review of articles for content, level, currentness, and appropriateness provides critical direction to the editor and staff. We think that you will find their careful consideration well reflected in this volume.

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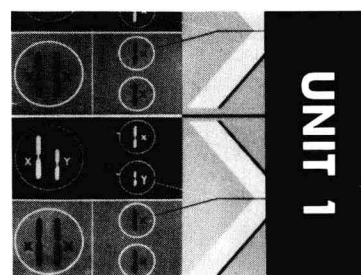
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## A. GENETIC INFLUENCES

1. **Designer Babies**, Sharon Begley, *Newsweek*, November 9, 1998. 8  
**Genetic engineering** already enables scientists to place a healthy gene into an organ to repair damage or disease. Soon it may be possible to manipulate a fertilized egg (germline therapy) to remove the threat of a **health problem** (e.g., breast cancer, Alzheimer's) even before birth. **Ethical questions** exist. Will only the wealthy have designer babies? Will scientists know when to stop?
2. **Nature's Clones**, Jim Neimark, *Psychology Today*, July/August 1997. 10  
Twin research reveals fascinating facts; not all identical twins share all **genetic** traits. **Prenatal development** of twins can be different. An egg can split before it is **fertilized** by two sperm, resulting in one-egg fraternal twins. New genetic discoveries about twinning suggest that the nature-nurture question is still inexplicable and chaotic.

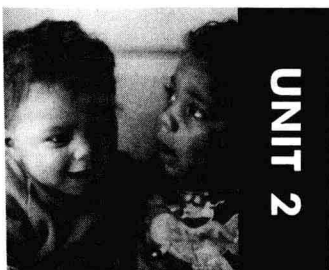
## B. PRENATAL INFLUENCES

3. **The Role of Lifestyle in Preventing Low Birth Weight**, Virginia Rall Chomitz, Lilian W. Y. Cheung, and Ellice Lieberman, *The Future of Children*, Spring 1995. 18  
Women's **health** during pregnancy has a profound effect on **prenatal development**. Lifestyle changes such as improved **nutrition**, cessation of **drug abuse** (for example, cigarettes, alcohol), and avoidance of **teratogens** can prevent low birth weight.
4. **A State of the Art Pregnancy**, Karen Springen, *Newsweek*, Special Issue, Spring 1999. 29  
**Prenatal** diagnosis in the twenty-first century will assess the **health** of unborn babies and predict future **physical development** very early in pregnancy. Fetal DNA analysis will also allow more fetal surgery to repair malformations. A transmitter in the uterus may prevent preterm deliveries. This article also gives 10 tips to a healthy pregnancy without using technological assistance.
5. **Fetal Psychology**, Janet L. Hopson, *Psychology Today*, September/October 1998. 32  
Two months before birth, the **prenatal** fetus has **emotions and personality** that predict infant behavior. Very active fetuses become irritable babies, while fetuses with high heart rates become unpredictable, inactive babies. A **well-nourished, low-stress, drug-free** prenatal environment has the best chance of producing a baby with an easy temperament. It also enhances **physical development and cognition**.



## Genetic and Prenatal Influences on Development

Seven selections discuss genetic influences on development, cloning, and the role of lifestyle, including the effects of substance abuse, on prenatal development.



## Development during Infancy and Early Childhood

Six selections profile the impressive abilities of infants and young children, examine the ways in which children learn, and discuss the development of empathy in early childhood.

6. **Drug-Exposed Infants**, Lucy Salcido Carter and Carol S. Larson, *The Future of Children*, Summer/Fall 1997. **Prenatal** exposure to **drugs of abuse** is **teratogenic**. It affects infant physical, cognitive, and social development and health. Legislative efforts have been directed at detecting the problem mothers and treating, rather than punishing, them. **37**
7. **Sperm under Siege**, Anne Merewood, *Health*, April 1991. **41**  
Sperm as well as ova are susceptible to **teratogens**. Carcinogenic chemicals, tobacco, alcohol, and **drug abuse** can damage sperm, which, should they fertilize the ovum, may have devastating **effects on prenatal development**.

## Overview **46**

### A. INFANCY

8. **Temperament and the Reactions to Unfamiliarity**, **48**  
Jerome Kagan, *Child Development*, February 1997.  
Jerome Kagan's research demonstrates that **infant development** is shaped by both **genetics** and socialization. Babies born with reactive nervous systems may become subdued, fearful children, while those born with relaxed systems may become more sociable and secure. However, predicting future **personality** from infant reactivity without considering social forces would be a mistake. **Biological and psychological explanations** are both part of the **phenomena of human experiences**.
9. **Baby Talk**, Shannon Brownlee, *U.S. News & World Report*, June 15, 1998. **53**  
Linguists are discovering that **infants** too young to use language can discern incorrect use of **language** rules. **Cognitive development** in the brain is literally sculpted and reorganized by language perception. Computer neural networks (artificial intelligence) have yet to come close to the computation powers of babies.
10. **The Cultural Context of Infant Caregiving**, Navaz Peshotan Bhavnagri and Janet Gonzalez-Mena, *Childhood Education*, Fall 1997. **60**  
Recommendations for caregiving in **infancy** should consider beliefs, practices, and goals of the **culture** of the **parents**. The **physical, cognitive, and emotional development** of the baby is enhanced by collaboration and support between parents and child care professionals in infant care settings. Child care courses should teach cultural diversity, not just the American way.

### B. EARLY CHILDHOOD

11. **The Language Explosion**, Geoffrey Cowley, *Newsweek*, Special Issue, Spring/Summer 1997. **68**  
Most psycholinguists agree that in **early childhood** the young brain is wired to analyze and learn many aspects of **language**. This article reviews how children discern sound, meaning, and grammar in all 6,000 language **cultures**. It recommends ways to use "parentese" to facilitate language and suggests red flags to watch for that may signal language disabilities.

12. **Defining the Trait That Makes Us Human**, Beth Azar, *APA Monitor*, November 1997. 71

The development of **empathy in early childhood** is both a **cognitive** and an **emotional achievement**. While a **genetic** predisposition to empathize exists, **education** is important for shaping empathy. The author cites researchers' opinions on how it can best be taught in **family/parenting** contexts.

13. **Highlights of the Quality 2000 Initiative: Not by Chance**, Sharon L. Kagan and Michelle J. Neuman, *Young Children*, September 1997. 74

**Early childhood** education programs help shape the **physical, cognitive**, and **emotional development** of the 13 million American children who attend them. This article describes the recommendations for state-of-the-art programs that use technologies and resources **creatively**, are cost-effective, and will enhance the well-being of our young children.

## Overview 82

### A. COGNITION

14. **The Genetics of Cognitive Abilities and Disabilities**, Robert Plomin and John C. DeFries, *Scientific American*, May 1998. 84

The authors of this article define heritability and explain how it influences **cognitive development**. They discuss the difficult hunt for specific **genes** for cognitive abilities at the molecular level and give a current status report. **Molecular genetics** may provide important answers to questions of how the environment also shapes the learning process.

15. **Basing Teaching on Piaget's Constructivism**, Constance Kamii and Janice K. Ewing, *Childhood Education*, Annual Theme Issue, 1996. 91

Piaget's **cognitive theory** embraces the view that much of learning originates from inside the child. This theory of constructivism is clearly articulated in this article. Constructivism not only explains **how children construct knowledge** but also helps adults plan more sensitive ways to teach them.

16. **The First Seven . . . and the Eighth: A Conversation with Howard Gardner**, Kathy Checkley, *Educational Leadership*, September 1997. 96

Howard Gardner believes that there are eight **cognitive** abilities that can be used to solve problems or **create** products: eight different kinds of intelligences. In this interview he describes the first seven plus an eighth, the naturalist intelligence. Children should be helped to discover what they are good at, and **educational** situations should nurture and enhance their areas of expertise.

### B. SCHOOLING

17. **Bell, Book, and Scandal**, *The Economist*, December 24, 1994/January 6, 1995. 101

An overview of **IQ measurement** illustrates the virtues, exaggerations, or vices of Francis Galton, Alfred Binet, Charles Spearman, L. L. Thurstone, Arthur Jensen, Howard Gardner, and others. *The Bell Curve* by Charles Murray and Richard Herrnstein is critically reviewed. Questions are raised about **cultural determinism**, the relationship of **physical development** to intellect, and the use of IQ tests to order children into differential **educational placements**.



## Development during Childhood: Cognition and Schooling

Seven selections examine human development during childhood, paying specific attention to social and emotional development, cognitive and language development, and development problems.



## Development during Childhood: Family and Culture

Six selections discuss the impact of home and culture on child rearing and child development. The topics include parenting styles, family structure, and cultural influences.

- 18. The Death of Child Nature: Education in the Post-modern World**, David Elkind, *Phi Delta Kappan*, November 1997. **105**

David Elkind argues that **education** continues to see children as alike and amenable to universal rules even though the postmodern world stresses the importance of differences. **Culture**, race, **gender**, learning styles, and other phenomena have no regularity. Children should not be expected to melt into a common amalgam; as individuals, learning is always a **creative** activity.

- 19. In Search of . . . Brain-Based Education**, John T. Bruer, *Phi Delta Kappan*, May 1999. **110**

This essay supplies rebuttals to the brain-based literature that advocates changing **education** to comply with right-left (**gender differentiated**) brain functions and a sensitive period for **cognitive development** between ages 4 and 10. Critical evaluation of scientific brain research reveals that neurobiology has not yet revealed answers to questions of how children learn, remember, and think.

- 20. Caution—Praise Can Be Dangerous**, Carol S. Dweck, *American Educator*, Spring 1999. **117**

The right kind of praise can boost **self-esteem** and increase achievement motivation in **school**. Praise for effort increases the challenge to learn. However, praise of a student's intelligence is dangerous. Students praised as intelligent choose easy tasks to avoid making mistakes and threatening their status. One sentence of praise (right or wrong) is pervasive and powerful.

## Overview

**122**

### A. FAMILY

- 21. Father Love and Child Development: History and Current Evidence**, Ronald P. Rohner, *Current Directions in Psychological Science*, October 1998. **124**

**Parental** influence has historically been viewed as mother love as prime mover. New research shows that father love and acceptance is very important to a child's **cognitive** and **emotional development** in both **genders** and in all **cultures**. Ronald Rohner reviews six types of studies that demonstrate the power of father love. **Depression**, **drug abuse**, and **violence** outcomes, for example, are more linked to father love than to mother love.

- 22. The Parent Trap**, Sharon Begley, *Newsweek*, September 7, 1998. **128**

This article reviews the book by Judith Rich Harris that suggests that **parenting** influences are less important to child outcomes than **genetic predetermination**. Many rebuttals to Harris's thesis are voiced as well as some support. **Personality** traits, **peers'** influence, and **occupational** choices result from the interactive effects of both nature and nurture.

- 23. Kids Who Don't Fit In**, Pat Wingert, *Newsweek*, March 22, 1999. **134**

A child's **emotional intelligence** may have a genetic basis, but **family/parenting** skills can help children fit in better with **peers** and in social situations. This article discusses early signs of emotional disability. **Play and kindness stories in school** and at home can foster more empathy. Social skills therapy may also help both parents and children.



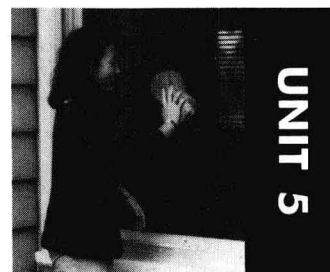
## B. CULTURE

24. **The Effects of Poverty on Children**, Jeanne Brooks-Gunn and Greg J. Duncan, *The Future of Children*, Summer/Fall 1997. 136  
This article reviews what poverty does to children's **physical development, health, nutrition, cognition, school achievement**, and **emotional development**. Poor children have less access to **peers** and see more **violence**. The authors back up their claims with extensive data.
25. **Effects of Maltreatment and Ways to Promote Children's Resiliency**, Barbara Lowenthal, *Childhood Education*, Summer 1999. 151  
**Violence** (abuse, severe injuries, natural disorders) leaves children at risk for **stress** disorders, **emotional/personality** disorders, **health** problems, **cognitive** disorders, and **depression**. Such negative experiences cause abnormal neuronal activity that, in turn, disrupts brain development, creating greater risks to the neurons than in adulthood. Interventions to prevent further maltreatment and to promote resiliency are suggested.
26. **Tomorrow's Child**, Jerry Adler, *Newsweek*, November 2, 1998. 155  
What will the twenty-first century **culture of childhood** be like? This article reviews hallmarks of **family life** in the twentieth century, and predicts landmarks for the future. These include half of the children in the United States being non-Caucasian, having **health** ensured by DNA manipulations, going to free preschools and health clubs, having **computer Internet** expertise, and eating **genetically engineered** foods packed with **nutritional** supplements.

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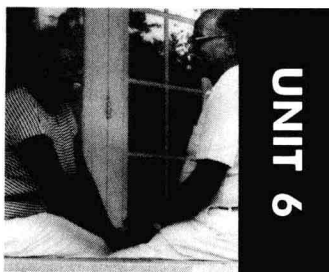
### A. ADOLESCENCE

27. **Growing Up Goes On and On and On**, Cynthia Crossen, *Wall Street Journal*, March 24, 1997. 160  
This article suggests that **adolescence** (the time between childhood and adulthood) is the longest it has ever been. **Physical** changes herald **emotional/personality** unsteadiness, **depression**, and threats to **self-esteem** that may last through age 21 or beyond. Comparisons are made with adolescence in previous decades.
28. **Why the Young Kill**, Sharon Begley, *Newsweek*, May 3, 1999. 163  
Quotes from experts on **adolescent psychology** and neurobiology show that **aggression/violence** probably requires a particular environment of **stress**, lack of **morality** training, and/or negligent **parenting** imposed on a temperamentally vulnerable child with a **genetic** predisposition to antisocial **personality**. Such doubly jeopardized youth lack the skills to restore their sense of **self-esteem** when faced with perceived injustices.
29. **The Secret Life of Teens**, John Leland, *Newsweek*, May 10, 1999. 166  
This selection points out the importance of **parents** entering the secret world of **adolescence**. Parents need to learn the secret **language** used to communicate about sex and **drugs**. Television, videos, and computer games present teens with a landscape of **aggression/violence** and **sex/gender** fantasies. Parental incursions can help replace poor quality role models with **ethics/morality training**.



## Development during Adolescence and Young Adulthood

Seven selections explore a wide range of issues and topics concerning adolescence and early adulthood.



## Development during Middle and Late Adulthood

Eight selections review a variety of biological and psychological aspects of aging, questioning the concept of set life stages.

### B. YOUNG ADULTHOOD

30. **Brain Sex and the Language of Love**, Robert L. Nadeau, *The World & I*, November 1997. 170  
*Young adults* show **gender differences** in intimacy. Male **communication** emphasizes action and autonomy. Female language promotes sharing and consensus. Women give "lack of communication" as a reason for **divorce**. Robert Nadeau explains that some of these differences may result from sex-specific brain hemisphere functioning.
31. **The Infertility Challenge**, Annetta Miller and Joan Raymond, *Newsweek*, Special Issue, Spring 1999. 176  
The problem of **infertility** has not been solved. This article reviews **gender-related** causes (evenly split between men and women) and new techniques of assisted reproductive technology (ART). The amazing transformations in ART since the first "test tube baby" in 1979 have a dark side. Costs are high and seldom insured, chromosomal abnormalities are four times higher than in unassisted pregnancies, and success is not guaranteed.
32. **The Science of a Good Marriage**, Barbara Kantrowitz and Pat Wingert, *Newsweek*, April 19, 1999. 179  
This article contradicts the Mars-Venus **gender difference** in **emotion/personality** as a factor in **divorce**. *Young adults* with happy relationships share power. They keep the demons of criticism, contempt, defensiveness, and stonewalling at bay. The birth of a first baby requires extra work in household and child-care roles. Happy marriages have a significant effect on good **health**.
33. **The Nature and Uses of Dreaming**, Ernest Hartmann, *USA Today Magazine* (*Society for the Advancement of Education*), March 1999. 183  
*Young adults'* dreams are a window of their **emotional** state and can lead to useful self-knowledge, according to Ernest Hartmann. **Stressful** events bring dreams of fear, helplessness, guilt, and/or grief. Dreams make connections broadly, but not randomly, in a pictorial **language**. Reading dream language has **creative** as well as therapeutic uses.

### Overview

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### A. MIDDLE ADULTHOOD

34. **Memory**, Geoffrey Cowley and Anne Underwood, *Newsweek*, June 15, 1998. 188  
Forgetfulness is America's latest **health** obsession. What changes in **cognition** can be wrought with **nutrition, stress management**, and exercise? Books and seminars on memory retention sell quickly to **middle-aged adults**. This article discusses many antidotes for forgetfulness.
35. **The Age of Anxiety**, Donna Foote and Sam Seibert, *Newsweek*, Special Issue, Spring/Summer 1999. 193  
**Middle-aged adults** have many **stress**-related ailments. However, **gender differences** exist: women have more **depression** and **nutrition** disorders; men have more **aggression** and **drug**-related disorders. The **physical status** of men's and women's brains differs at midlife. Women have much less serotonin (a neurotransmitter) while men have less limbic system reactions to stress. Sex hormones are not the only cause of differences between the sexes.

**36. Understanding Perimenopause, Sharon Begley, 196**  
Newsweek, Special Issue, Spring 1999.

Women undergo a few years of perimenopause in **middle adulthood**. It can masquerade as **physical status decline** or **depression**, but it is neither. It can be treated. This article explains the symptoms and the different therapies used for different women. It is not imaginary: It does not begin when menstrual periods end, and each woman experiences it uniquely.

**B. LATE ADULTHOOD**

**37. The Johns Hopkins Prescription for Longevity, The 200**  
*Johns Hopkins Medical Letter Health after 50*, December 1998.

**Late adulthood** can be a **healthy time** of life. This article reviews lifestyle factors that can make it salubrious. Exercise is the single most recommended anti-aging measure. Other lifestyle choices should include good **nutrition**, avoiding sun exposure, drinking water, reducing **stress**, challenging the mind, and cultivating friendships.

**38. New Nerve Cells for the Adult Brain, Gerd Kempermann and Fred H. Gage, Scientific American, May 1999. 203**

Until recently it was accepted as truth that neurons could not undergo mitosis after birth. Scientists have discovered that neurons in the hippocampus can regenerate. Stem cells in other brain locations may also have this potentiality. If so, many neurological diseases of **late adulthood** may be cured. This article reviews the current knowledge about this startling discovery.

**39. The Age Boom, Jack Rosenthal, New York Times Magazine, March 9, 1997. 209**

The institutions that are most important for **older adults** are the same as those for others: **family, school, work**. The author discusses raising grandchildren, going back to college after 50, and continuing to work after retirement as phenomena of the **culture** of late adulthood today.

**40. Emotion in the Second Half of Life, Laura L. Carstensen and Susan Turk Charles, Current Directions in Psychological Science, October 1998. 213**

The authors propose that **late adulthood** is marked by improvement in **emotional regulation**, and that decline sets in only at the very end of life. Social networks grow smaller but social contacts and partners become more significant. Poignancy reigns. Many old people say their lives have never been better. Negative emotions are reduced while positive emotions are maintained.

**41. The Centenarians Are Coming!! Cynthia G. Wagner, The Futurist, May 1999. 218**

Jeanne Calment lived to be 122 and broke the documented human longevity record. However, **late adulthood** now has many centenarians. This article analyzes the trend toward longevity. **Occupational choices** of the future will reflect both longer careers, as well as careers servicing the old-old (home care, prosthetics, etc.). Planning tips and resources for longer living are included.

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# Topic Guide

This topic guide suggests how the selections and World Wide Web sites found in the next section of this book relate to topics of traditional concern to human development students and professionals. It is useful for locating interrelated articles and Web sites for reading and research. The guide is arranged alphabetically according to topic.

The relevant Web sites, which are numbered and annotated on pages 4 and 5, are easily identified by the Web icon (Ⓜ) under the topic articles. By linking the articles and the Web sites by topic, this ANNUAL EDITIONS reader becomes a powerful learning and research tool.

TOPIC AREA	TREATED IN	TOPIC AREA	TREATED IN
<b>Adolescence</b>	27. Growing Up Goes On and On 28. Why the Young Kill 29. Secret Life of Teens Ⓜ 3, 11, 26, 27, 28, 29	<b>Drug Abuse</b>	3. Role of Lifestyle 5. Fetal Psychology 6. Drug-Exposed Infants 7. Sperm under Siege 21. Father Love 29. Secret Life of Teens 35. Age of Anxiety Ⓜ 3, 26, 27, 28
<b>Aggression/ Violence</b>	21. Father Love 24. Effects of Poverty 25. Effects of Maltreatment 28. Why the Young Kill 29. Secret Life of Teens 35. Age of Anxiety Ⓜ 2, 10, 21, 23, 28	<b>Early Childhood</b>	11. Language Explosion 12. Defining the Trait 13. Highlights of the Quality 2000 Initiative Ⓜ 12, 13, 14
<b>Cognition</b>	5. Fetal Psychology 6. Drug-Exposed Infants 9. Baby Talk 10. Cultural Context of Infant Caregiving 13. Highlights of the Quality 2000 Initiative 14. Genetics of Cognitive Abilities 15. Basing Teaching on Piaget's Constructivism 16. First Seven . . . and the Eighth 19. In Search of . . . Brain-Based Education 21. Father Love 24. Effects of Poverty 25. Effects of Maltreatment 34. Memory Ⓜ 2, 6, 9, 15, 16, 17, 18, 24, 25	<b>Education/ School</b>	12. Defining the Trait 15. Basic Teaching on Piaget's Constructivism 16. First Seven . . . and the Eighth 17. Bell, Book, and Scandal 18. Death of Child Nature 19. In Search of . . . Brain-Based Education 20. Caution-Praise Can Be Dangerous 23. Kids Who Don't Fit In 24. Effects of Poverty 39. Age Boom Ⓜ 9, 15, 16, 17, 18, 19, 20
<b>Creativity</b>	13. Highlights of the Quality 2000 Initiative 16. First Seven . . . and the Eighth 18. Death of Child Nature 33. Nature and Uses of Dreaming Ⓜ 12, 14, 17, 19, 20, 24	<b>Emotions/ Personality</b>	5. Fetal Psychology 6. Drug-Exposed Infants 8. Temperament and the Reactions to Unfamiliarity 10. Cultural Context of Infant Caregiving 12. Defining the Trait 13. Highlights of the Quality 2000 Initiative 21. Father Love 22. Parent Trap 23. Kids Who Don't Fit In 24. Effects of Poverty 25. Effects of Maltreatment 27. Growing Up Goes On and On 28. Why the Young Kill 32. Science of a Good Marriage 33. Nature and Uses of Dreaming 40. Emotion in the Second Half of Life Ⓜ 2, 4, 5, 8, 9, 10, 15, 16, 18, 20, 21, 23, 27, 28, 30, 32
<b>Culture</b>	10. Cultural Context of Infant Caregiving 11. Language Explosion 17. Bell, Book, and Scandal 18. Death of Child Nature 21. Father Love 24. Effects of Poverty 25. Effects of Maltreatment 26. Tomorrow's Child 39. Age Boom Ⓜ 2, 4, 12, 14, 16, 17, 19, 20, 24	<b>Ethics/Morality</b>	1. Designer Babies 28. Why the Young Kill 29. Secret Life of Teens Ⓜ 1, 6, 27, 28, 29
<b>Depression</b>	21. Father Love 25. Effects of Maltreatment 27. Growing Up Goes On and On 35. Age of Anxiety 36. Understanding Perimenopause Ⓜ 3, 21, 23, 24, 25	<b>Family/ Parenting</b>	10. Cultural Context of Infant Caregiving 12. Defining the Trait 21. Father Love 22. Parent Trap 23. Kids Who Don't Fit In 26. Tomorrow's Child
<b>Divorce</b>	30. Brain Sex 32. Science of a Good Marriage Ⓜ 24, 25		

TOPIC AREA	TREATED IN	TOPIC AREA	TREATED IN
<b>Family/ Parenting (Continued)</b>	28. Why the Young Kill 29. Secret Life of Teens 39. Age Boom ☉ <b>12, 13, 14, 21, 23, 24, 25, 27, 28, 29, 31</b>	<b>Occupation/ Work</b>	22. Parent Trap 39. Age Boom 41. Centenarians Are Coming ☉ <b>22, 31, 36</b>
<b>Fertility</b>	2. Nature's Clones 31. Infertility Challenge	<b>Peers</b>	22. Parent Trap 23. Kids Who Don't Fit In 24. Effects of Poverty ☉ <b>21, 22, 23, 24, 25</b>
<b>Genetics</b>	1. Designer Babies 2. Nature's Clones 8. Temperament and the Reactions to Unfamiliarity 12. Defining the Trait 14. Genetics of Cognitive Abilities 22. Parent Trap 23. Kids Who Don't Fit In 26. Tomorrow's Child 28. Why the Young Kill ☉ <b>7, 8, 9, 10, 16, 18</b>	<b>Physical Status</b>	4. State of the Art Pregnancy 5. Fetal Psychology 10. Cultural Context of Infant Caregiving 13. Highlights of the Quality 2000 Initiative 17. Bell, Book, and Scandal 24. Effects of Poverty 27. Growing Up Goes On and On 35. Age of Anxiety 36. Understanding Perimenopause ☉ <b>3, 5, 11, 12, 14, 15, 21, 24, 26, 29, 32, 34, 36</b>
<b>Health</b>	1. Designer Babies 3. Role of Lifestyle 4. State of the Art Pregnancy 6. Drug-Exposed Infants 24. Effects of Poverty 25. Effects of Maltreatment 26. Tomorrow's Child 32. Science of a Good Marriage 34. Memory 37. Johns Hopkins Prescription for Longevity ☉ <b>3, 5, 11, 13, 26, 28, 29, 35</b>	<b>Prenatal</b>	2. Nature's Clones 3. Role of Lifestyle 4. State of the Art Pregnancy 5. Fetal Psychology 6. Drug-Exposed Infants 7. Sperm under Siege ☉ <b>5, 6, 7, 8, 9</b>
<b>Infancy</b>	6. Drug-Exposed Infants 8. Temperament and the Reactions to Unfamiliarity 9. Baby Talk 10. Cultural Context of Infant Caregiving ☉ <b>5, 11, 12, 13, 14</b>	<b>Self-Esteem</b>	20. Caution-Praise Can Be Dangerous 27. Growing Up Goes On and On 28. Why the Young Kill ☉ <b>27, 28, 29</b>
<b>Language</b>	9. Baby Talk 11. Language Explosion 29. Secret Life of Teens 30. Brain Sex 33. Nature and Uses of Dreaming ☉ <b>15, 16, 18, 19, 27, 29</b>	<b>Sex/Gender</b>	18. Death of Child Nature 19. In Search of . . . Brain-Based Education 21. Father Love 29. Secret Life of Teens 30. Brain Sex 31. Infertility Challenge 32. Science of a Good Marriage 35. Age of Anxiety ☉ <b>18, 24, 25, 26, 29, 31</b>
<b>Late Adulthood</b>	37. Johns Hopkins Prescription for Longevity 38. New Nerve Cells for the Adult Brain 39. Age Boom 40. Emotion in the Second Half of Life 41. Centenarians Are Coming!! ☉ <b>30, 31, 32, 34, 35, 36</b>	<b>Stress</b>	5. Fetal Psychology 25. Effects of Maltreatment 28. Why the Young Kill 33. Nature and Uses of Dreaming 34. Memory 35. Age of Anxiety 37. Johns Hopkins Prescription for Longevity ☉ <b>9, 30, 31, 32, 34, 35, 36</b>
<b>Middle Adulthood</b>	34. Memory 35. Age of Anxiety 36. Understanding Perimenopause ☉ <b>30, 31, 32, 34, 35, 36</b>	<b>Teratogens</b>	3. Role of Lifestyle 6. Drug-Exposed Infants 7. Sperm under Siege ☉ <b>6, 7, 8, 9</b>
<b>Nutrition</b>	3. Role of Lifestyle 5. Fetal Psychology 24. Effect of Poverty 26. Tomorrow's Child 34. Memory 35. Age of Anxiety 37. Johns Hopkins Prescription for Longevity ☉ <b>3, 11, 15, 29, 32, 34, 35, 36</b>	<b>Young Adulthood</b>	30. Brain Sex 31. Infertility Challenge 32. Science of a Good Marriage 33. Nature and Uses of Dreaming ☉ <b>26, 27, 28, 29</b>

## ● AE: Human Development

The following World Wide Web sites have been carefully researched and selected to support the articles found in this reader. If you are interested in learning more about specific topics found in this book, these Web sites are a good place to start. The sites are cross-referenced by number and appear in the topic guide on the previous two pages. Also, you can link to these Web sites through our DUSHKIN ONLINE support site at <http://www.dushkin.com/online/>.

The following sites were available at the time of publication. Visit our Web site—we update DUSHKIN ONLINE regularly to reflect any changes.

### General Human Development Issues

#### 1. Association for Moral Education

<http://www.wittenberg.edu/ame/index.html>

This association is dedicated to fostering communication, co-operation, training, curriculum development, and research that links moral theory to educational practices.

#### 2. Behavior Analysis Resources

<http://www.coedu.usf.edu/behavior/bares.htm>

Dedicated to promoting the experimental, theoretical, and applied analysis of behavior, this site encompasses contemporary scientific and social issues, theoretical advances, and the dissemination of professional and public information.

#### 3. Healthfinder

<http://www.healthfinder.org/default.htm>

Healthfinder is a consumer health site that contains the latest health news, prevention and care choices, and information about every phase of human development.

#### 4. Social Influence

<http://www.influenceatwork.com/intro.html>

Persuasion, compliance, and propaganda are the main focus of this site. It includes practical examples and applications.

### Genetic and Prenatal Influences on Development

#### 5. American Academy of Pediatrics (AAP)

<http://www.aap.org>

AAP provides data for optimal physical, mental, and social health for all children. The site links to professional educational sources and current research.

#### 6. Basic Neural Processes

<http://psych.hanover.edu/Krantz/neurotut.html>

An extensive tutorial on brain structures is provided here.

#### 7. Evolutionary Psychology: A Primer

<http://www.psych.ucsb.edu/research/cep/>

A link to an evolutionary psychology primer is available on this site. Extensive background information is included.

#### 8. Human Genetics and Human Genome Project

<http://www.kumc.edu/gec/>

The University of Kansas Medical Center provides information on human genetics and the human genome project at this site. Included are a number of links to research areas.

#### 9. Serendip

<http://serendip.brynmawr.edu/serendip/>

Organized into five subject areas (brain and behavior, complex systems, genes and behavior, science and culture, and science education), this site contains interactive exhibits, articles, links to other resources, and a forum.

### Development during Infancy and Early Childhood

#### 10. Aggression and Cooperation: Helping Young Children Develop Constructive Strategies

<http://ericps.crc.uiuc.edu/eece/pubs/digests/1992/jewett92.html>

This ERIC Digest report is on helping children deal effectively with aggression. Developing prosocial attitudes and behaviors is its goal.

#### 11. Children's Nutrition Research Center (CNRC)

<http://www.bcm.tmc.edu/cnrc/>

CNRC is dedicated to defining the nutrient needs of healthy children, from conception through adolescence, and of pregnant and nursing mothers.

#### 12. Early Childhood Care and Development

<http://www.ecdgroup.com>

Child development theory, programming and parenting data, and research can be found on this site of the Consultative Group. It is dedicated to the improvement of conditions of young children at risk.

#### 13. Society of Pediatric Psychology (SPP)

<http://macserv.psy.miami.edu/SPP/>

The home page for SPP provides a forum for scientists and professionals who are interested in the health care of children, adolescents, and their families, with links to publications and other sites.

#### 14. Zero to Three: National Center for Infants, Toddlers, and Families

<http://www.zerotothree.org>

Zero to Three is dedicated solely to infants, toddlers, and their families. Organized by recognized experts in the field, it provides technical assistance to communities, states, and the federal government.

### Development during Childhood: Cognition and Schooling

#### 15. Children Now

<http://www.childrennow.org>

Children Now focuses on improving conditions for children who are poor or at risk. Articles include information on education, the influence of media, health, and security.

#### 16. Council for Exceptional Children

<http://www.cec.sped.org>

This is the home page of the Council for Exceptional Children, which is dedicated to improving education for exceptional children and the gifted child.

#### 17. Educational Resources Information Center (ERIC)

<http://www.ed.gov/pubs/pubdb.html>

Sponsored by the U.S. Department of Education, this site will lead to numerous documents related to elementary and early childhood education.

#### 18. Federation of Behavioral, Psychological, and Cognitive Science

<http://www.am.org/federation/>

The Federation's mission is fulfilled through legislative and regulatory advocacy, education, and information dissemination to the scientific community. Hotlink to the National Institutes of Health's Project on the Decade of the Brain.

### 19. The National Association for the Education of Young Children (NAEYC)

<http://www.naeyc.org>

The NAEYC is the nation's largest organization of early childhood professionals. It is devoted to improving the quality of early childhood education programs for children from birth through the age of eight.

### 20. Project Zero

<http://pzweb.harvard.edu>

Following 30 years of research on the development of learning processes in children and adults, Project Zero is now helping to create communities of reflective, independent learners; to enhance deep understanding within disciplines; and to promote critical and creative thinking.

## Development during Childhood: Family and Culture

### 21. Childhood Injury Prevention Interventions

<http://depts.washington.edu/hiprc/>

Systematic reviews of childhood injury prevention interventions on such diverse subjects as adolescent suicide, child abuse, accidental injuries, and youth violence are offered on this site.

### 22. Families and Work Institute

<http://www.familiesandworkinst.org>

The Families and Work Institute conducts policy research on issues related to the changing workforce, and it operates a national clearinghouse on work and family life.

### 23. National Committee to Prevent Child Abuse (NCPA)

<http://www.childabuse.org>

Dedicated to the NCPA's child abuse prevention efforts, this site provides statistics, parenting tips, chapter data, and other resources.

### 24. The National Parent Information Network (NPIN)

<http://ericps.crc.uiuc.edu/npin/>

NPIN's site contains resources related to many of the controversial issues faced by parents raising children in contemporary society. Discussion groups are also available.

### 25. Parentsplace.com: Single Parenting

<http://www.parentsplace.com/family/singleparent/>

This resource focuses on issues concerning single parents and their children. The articles range from parenting children from infancy through adolescence.

## Development during Adolescence and Young Adulthood

### 26. AMA—Adolescent Health On Line

<http://www.ama-assn.org/adolhth/adolhth.htm>

This AMA adolescent health initiative describes clinical preventive services that primary care physicians and other health professionals can provide to young people.

### 27. American Academy of Child and Adolescent Psychiatry

<http://www.aacap.org/web/aacap/>

Up-to-date data on a host of topics that include facts for families, public health, and clinical practice may be found here.

### 28. Ask NOAH About: Mental Health

<http://www.noah.cuny.edu/illness/mentalhealth/mental.html>

NOAH's Web site contains information about child and adolescent family problems, mental conditions and disorders, suicide prevention, and much more.

### 29. Biological Changes in Adolescence

<http://www.personal.psu.edu/faculty/n/x/nxd10/biologic2.htm>

This site offers a discussion of puberty, sexuality, biological changes, cross-cultural differences, and nutrition for adolescents, including a look at obesity.

## Development during Middle and Late Adulthood

### 30. The Alzheimer Page

<http://www.biostat.wustl.edu/ALZHEIMER/>

Links to a wide range of sites devoted to Alzheimer's disease and dementia can be found here.

### 31. American Psychological Association's Division 20, Adult Development and Aging

<http://www.iog.wayne.edu/APADIV20/lowdiv20.htm>

Dedicated to studying the psychology of adult development and aging, this division provides links to research guides, laboratories, instructional resources, and other related areas.

### 32. Gero Web

<http://www.iog.wayne.edu/GeroWebd/GeroWeb.html>

This virtual library on aging contains information on gerontology, geriatrics, and the process of aging.

### 33. Grief Net

<http://rivendell.org>

Produced by a nonprofit group, Rivendell Resources, this site provides many links to the Web on the bereavement process, resources for grievers, and support groups.

### 34. Huffington Center on Aging

<http://www.hcoa.org>

The Huffington Center on Aging home page offers links to sites on aging and Alzheimer's disease.

### 35. National Aging Information Center (NAIC)

<http://www.aoa.dhhs.gov/naic/>

This service by the Administration on Aging is a central source of data on demographic, health, economic, and social status of older Americans.

### 36. Rose.Net "For Seniors Only"

<http://www.rose.net/seniors.htm>

Several sites are listed here that could be of interest to members of the senior community.

**We highly recommend that you review our Web site for expanded information and our other product lines. We are continually updating and adding links to our Web site in order to offer you the most usable and useful information that will support and expand the value of your Annual Editions. You can reach us at:**  
<http://www.dushkin.com/annualeditions/>.



## Unit Selections

### *Genetic Influences*

### *Prenatal Influences*

1. **Designer Babies**, Sharon Begley
2. **Nature's Clones**, Jim Neimark
3. **The Role of Lifestyle in Preventing Low Birth Weight**, Virginia Rall Chomitz, Lilian W. Y. Cheung, and Ellice Lieberman
4. **A State of the Art Pregnancy**, Karen Springen
5. **Fetal Psychology**, Janet L. Hopson
6. **Drug-Exposed Infants**, Lucy Salcido Carter and Carol S. Larson
7. **Sperm under Siege**, Anne Merewood

## Key Points to Consider

- ❖ Will a complete genetic blueprint of humans allow molecular biologists to alter germ cells (eggs, sperm)? Should this type of gene therapy be ethically acceptable in the twenty-first century? Defend your answer.
- ❖ Do studies of identical twins give answers to the age-old nature-nurture questions? What strategies can reduce the numbers of babies born with low birth weight and at risk of developmental disabilities?
- ❖ How will technology change the course of pregnancy in the future? Will state-of-the-art gestation include medical care of the fetus? Explain.
- ❖ What kind of prenatal nurture produces the most psychologically healthy fetuses?
- ❖ What is the status of drug abuse prevention and treatment programs for pregnant women?
- ❖ How do sperm contribute to prenatal development?



## Links

[www.dushkin.com/online/](http://www.dushkin.com/online/)

5. **American Academy of Pediatrics (AAP)**  
<http://www.aap.org>
6. **Basic Neural Processes**  
<http://psych.hanover.edu/Krantz/neurotut.html>
7. **Evolutionary Psychology: A Primer**  
<http://www.psych.ucsb.edu/research/cep/>
8. **Human Genetics and Human Genome Project**  
<http://www.kumc.edu/gec/>
9. **Serendip**  
<http://serendip.brynmawr.edu/serendip/>

These sites are annotated on pages 4 and 5.