

# THEORIES OF DEVELOPMENT

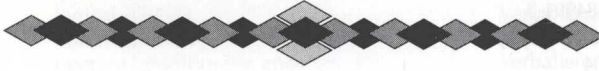
*Concepts and Applications*

*Fifth Edition*



WILLIAM CRAIN

Fifth Edition



# **THEORIES OF DEVELOPMENT**

## **Concepts and Applications**

**WILLIAM CRAIN**

*The City College  
of the City University of New York*

**PEARSON**

**Prentice  
Hall**

Upper Saddle River, New Jersey 07458

# Library of Congress Cataloging-in-Publication Data

Crain, William C.

Theories of development: concepts and applications / William Crain.—5th ed.

p. cm.

Includes bibliographical references (p. ) and indexes.

ISBN 0-13-184991-3

1. Developmental psychology—Textbooks. I. Title.

BF713.C72 2004

155—dc22

2004044673

**Executive Editor:** Jennifer Gilliland  
**Editorial Director:** Leah Jewell  
**Editorial Assistant:** LeeAnn Doherty  
**Director of Marketing:** Beth Mejia  
**Marketing Assistant:** Julie Kestenbaum  
**VP, Director of Production and Manufacturing:** Barbara Kittle  
**Managing Editor:** Joanne Riker  
**Assistant Managing Editor:** Maureen Richardson  
**Production Editor:** Nicole Girschbach  
**Manufacturing Manager:** Nick Sklitsis  
**Manufacturing Buyer:** Tricia Kenny  
**Cover Director:** Jayne Conte

**Cover Design:** Bruce Kenselaar  
**Cover Illustration/Photo:** Jane Sterrett/Theispot  
**Manager, Production/Formatting and Art:** Guy Ruggiero  
**Illustrator (Interior):** Mirella Signoretto  
**Director, Image Resource Center:** Melinda Reo  
**Manager, Rights and Permissions:** Zina Arabia  
**Interior Image Specialist:** Beth Brenzel  
**Composition:** Pine Tree Composition, Inc.  
**Printer/Binder:** Courier  
**Cover Printer:** Phoenix Color Corp.

Credits and acknowledgments borrowed from other sources and reproduced, with permission, in this textbook appear on appropriate page within text.

**Copyright © 2005, 2000, 1992, 1985, 1980 by Pearson Education, Inc., Upper Saddle River, New Jersey, 07458.** All rights reserved. Printed in the United States of America. This publication is protected by Copyright and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. For information regarding permission(s), write to: Rights and Permissions Department.

Pearson Education Ltd., London  
Pearson Education Australia PTY, Limited  
Pearson Education Singapore, Pte. Ltd.  
Pearson Education North Asia Ltd.  
Pearson Education, Canada, Ltd.  
Pearson Educación de Mexico, S.A. de C.V.  
Pearson Education-Japan  
Pearson Education Malaysia, Pte. Ltd.



10987  
ISBN 0-13-184991-3

# Preface

This fifth edition of *Theories of Development* is basically similar to the earlier editions. Its purpose, once again, is to introduce students to a variety of theorists, giving special attention to those who have contributed to that distinctly developmental perspective that began with Rousseau. The book focuses, that is, on writers who help us understand how development might arise from our inner promptings and spontaneous interests and how we might view the world differently at different stages of life.

This new edition updates several chapters. Most notably, it discusses recent critiques of Piaget's theory and the growing research that bears on Schachtel's theory of early memories. The book also suggests how Werner's holistic approach is becoming increasingly relevant, especially with respect to the current push for early literacy instruction. Werner's approach cautions us against rushing in to teach reading and writing skills at young ages. Instead, we should consider all the activities out of which literacy might more naturally emerge.

In the prior edition, published in 2000, I added an epilogue on the standards and testing movement that was sweeping the United States. I pointed out that this educational movement was focusing so exclusively on adults' goals and expectations that it was robbing children of the chance to develop their special strengths at their own stage of life. It would have been great if the standards movement had subsided since then. Instead, it has become even more powerful, causing children even more harm, as described in the revised epilogue.

Over the years, many people have contributed to this book. I would like to give special thanks to my wife Ellen. As always, she provided unwavering support and valuable insight. I also am deeply indebted to our children. It was initially by watching them that I became so impressed by the growth process I decided to write this book about it. Our children are grown now, but they continue to offer support and ideas that mean a great deal to me.

This new edition has benefited from critical readings and suggestions by professors Laurie S. Hunter, Francis Marion University; Coady Lapierre,

Tarleton State University; Chadwick Royal, North Carolina Central University; and Judith Torney-Purta, the University of Maryland. My brother Stephen Crain, professor of linguistics at the University of Maryland, once again helped me write the chapter on Chomsky.

I am grateful, finally, to those who have given permission to quote from various sources: W. W. Norton & Co., Inc., and The Hogarth Press Ltd. granted permission to quote from Erik H. Erikson's *Childhood and Society*, 2nd ed., 1963; Macmillan Publishing Co., Inc., and Bruno Bettelheim granted permission to quote from his book, *The Empty Fortress*, copyright © 1967 by Bruno Bettelheim; Little, Brown, & Co. granted permission to quote the first stanza of "Growth of Man like growth of Nature" from *Poems by Emily Dickinson*, edited by Martha Dickinson Bianchi, © 1957 by Mary L. Hampson; and *Family Circle Magazine* granted permission to quote from Louise B. Ames's "Don't push your preschooler," in the December 1971 issue, © 1971, The Family Circle, Inc., all rights reserved. Henry Holt and Company gave permission to reproduce lines from my 2003 book, *Reclaiming Childhood*. Credit for the use of illustrations and other material is given within the text.

William Crain

*Growth of Man like growth  
Of Nature  
Gravitates within,  
Atmosphere and sun confirm it  
But it stirs alone.*

Emily Dickinson

# Introduction

We all have assumptions about the nature of development. We commonly assume, for example, that children's development is in our hands—that children become what we make them. We think it is our job to teach them, to correct their mistakes, to provide good models, and to motivate them to learn.

Such a view is reasonable enough, and it is shared by many psychologists—by those called learning theorists and by many others as well. Psychologists use more scientific language, but they too assume that parents, teachers, and others structure the child's thought and behavior. When they see a child engaging in a new bit of behavior, their first guess is that it has been taught. If, for example, a 2-year-old girl shows an intense interest in putting objects into place, they assume someone taught her to do this, for she is a product of her social environment.

There is, however, another tradition in psychology—a line of theorists dating from Rousseau—that looks at development quite differently. These writers, the developmentalists, are less impressed by our efforts to teach or otherwise influence children. Instead, they are more interested in how children grow and learn on their own. The developmentalists would wonder if this 2-year-old's interest in ordering objects might not be a spontaneous one—something she has begun entirely by herself. Her concern for order might even be greater than that of those around her. For just as children, at a certain stage, develop an inner urge to stand and walk, they may also develop a spontaneous need to find order in their environment.

If we follow a child around, taking the time to observe the child's natural tendencies, we find that the child has many spontaneous interests. A 1½-year-old may become fascinated by a ball, a puddle of water, or a mound of sand—things that can be touched, felt, and acted upon. The child may examine and play with such objects for long periods of time. Such interests may be so intense and so different from our own that it is unlikely they are the product of adult teachings. Rather, the developmentalists think, children may have an inner need to seek out certain kinds of experiences and activities at certain times in life.

The developmentalists—theorists such as Rousseau, Montessori, Gesell, Werner, and Piaget—do not agree on every point, and they have studied different aspects of development. Nevertheless, they share a fundamental orientation, which includes this interest in inner growth and spontaneous learning.

The developmentalists' concerns have been practical as well as theoretical. Montessori, for example, became dissatisfied with customary educational methods, in which teachers try to direct children's learning by rewarding their correct answers and by criticizing their mistakes. This practice, she thought, undermines children's independence, for children soon turn to the teacher, an external authority, to see if they are right. Instead, she tried to show that if we observe children's spontaneous interests, we can help provide tasks on which they will work independently and with the greatest concentration, without external direction or motivation. For, she thought, an inner force prompts children to perfect their capacities at each developmental stage.

In many other ways, the developmentalists have contributed to a new understanding of childhood and later development as well. Unfortunately, however, their writings have not received the full consideration they deserve. Their emphasis on spontaneous development has often struck psychologists as too romantic or too radical. Piaget, to be sure, has found a wide audience, but often a very skeptical one.

There is one place where the developmentalists' concerns are seriously expressed. This is in humanistic psychology. Maslow and the humanists have drawn heavily upon developmental ideas. But the humanists have usually done this in a very implicit way, without recognizing how much they owe to earlier developmental contributions.

This book, then, is devoted to an appreciation of some of the outstanding developmental theorists. We will discuss the theorists who have followed closely in the footsteps of Rousseau, along with other theorists, including ethologists and psychoanalysts, who share a developmental outlook. We will discuss their concepts and some of the practical implications of their work. We will also review the first orientation we mentioned—that of the learning theorists, who help us understand behavior from a more environmental perspective. We will not cover learning theory in the depth it deserves, for this book is primarily concerned with the developmental tradition. But we will try to get a flavor of the learning theorists' ideas. In the chapter on Vygotsky, in addition, we will look at a pioneering attempt to integrate strong developmental and environmental perspectives. In the conclusion, we will discuss the ways in which the developmentalists have anticipated and advanced humanistic ideas and insights.

# Contents

**PREFACE xi**

**INTRODUCTION xv**

**1**

**EARLY THEORIES: PREFORMATIONISM, LOCKE,  
AND ROUSSEAU 1**

Preformationism 1

Locke's Environmentalism 4

Rousseau's Romantic Naturalism 10

**2**

**GESELL'S MATURATIONAL THEORY 20**

Biographical Introduction 20

Principles of Development 21

Philosophy of Child Rearing 27

Evaluation 30

**3**

**ETHOLOGICAL THEORIES: DARWIN, LORENZ  
AND TINBERGEN, AND BOWLBY AND AINSWORTH 33**

Darwin and the Theory of Evolution 33

Modern Ethology: Lorenz and Tinbergen 36

Bowlby and Ainsworth on Human Attachment 44

**4**

**MONTESSORI'S EDUCATIONAL PHILOSOPHY 65**

Biographical Introduction 65

Theory of Development 67

Early Education in the Home 70

The Montessori School	72
Evaluation	83

## — 5 —

### **WERNER'S ORGANISMIC AND COMPARATIVE THEORY 87**

Biographical Introduction	87
Werner's View of Development	89
Some Comparative Studies	95
Symbol Formation: An Organismic View	100
Theoretical Issues	102
Practical Applications	107
Evaluation	109

## — 6 —

### **PIAGET'S COGNITIVE-DEVELOPMENTAL THEORY 112**

Biographical Introduction	112
Overview of the Theory	114
Period I. Sensorimotor Intelligence (Birth to 2 Years)	116
Periods II and III. Preoperational Thought (2 to 7) and Concrete Operations (7 to 11)	121
Period IV. Formal Operations (11 to Adulthood)	132
Theoretical Issues	134
Implications for Education	137
Evaluation	141

## — 7 —

### **KOHLBERG'S STAGES OF MORAL DEVELOPMENT 151**

Biographical Introduction	151
Piaget's Stages of Moral Judgment	152
Kohlberg's Method	153
Kohlberg's Six Stages	154
Theoretical Issues	159
Gilligan on the Feminine Voice	167
Implications for Education	169
Evaluation	172

— 8 —

**LEARNING THEORY: PAVLOV, WATSON,  
AND SKINNER 174**

- Pavlov and Classical Conditioning 174
- Watson 177
- Skinner and Operant Conditioning 181

— 9 —

**BANDURA'S SOCIAL LEARNING THEORY 197**

- Biographical Introduction 197
- Basic Concepts 198
- Socialization Studies 201
- Self-Efficacy 206
- Abstract Modeling and Piaget's Stages 208
- Practical Implications 212
- Evaluation 214

— 10 —

**VYGOTSKY'S SOCIAL-HISTORICAL THEORY  
OF COGNITIVE DEVELOPMENT 217**

- Biographical Introduction 217
- Marx's Views on Human Nature 219
- Vygotsky's Theory of Psychological  
Tools 221
- Memory Aids 225
- Speech 226
- Schooling 235
- Practical Applications 240
- Evaluation 243

— 11 —

**FREUD'S PSYCHOANALYTIC THEORY 248**

- Biographical Introduction 248
- The Stages of Psychosexual Development 251
- The Agencies of the Mind 264
- Practical Implications 271
- Evaluation 273

**12**

**ERIKSON AND THE EIGHT STAGES OF LIFE 277**

Biographical Introduction 277

Erikson's Stage Theory 279

Theoretical Issues 293

Practical Implications 299

Evaluation 300

**13**

**MAHLER'S SEPARATION/INDIVIDUATION THEORY 303**

Biographical Introduction 303

Overview of Concepts and Methods 304

Phases of Normal Development 306

Practical Applications 312

Evaluation 314

**14**

**A CASE STUDY IN PSYCHOANALYTIC TREATMENT:  
BETTELHEIM ON AUTISM 317**

Biographical Introduction 317

The Autistic Syndrome 318

Therapy 319

Evaluation 324

**15**

**SCHACHTEL ON CHILDHOOD EXPERIENCES 326**

Biographical Introduction 326

Basic Concepts 327

Implications for Education 330

Evaluation 331

**16**

**JUNG'S THEORY OF ADULTHOOD 335**

Biographical Introduction 335

Personality Structure 338

Theory of Development 341

Practical Implications 345

Evaluation 346



**CHOMSKY'S THEORY OF LANGUAGE  
DEVELOPMENT 348**

- Biographical Introduction 348
- Basic Concepts 349
- Notes on the Growth of Grammar 355
- Chomsky and Learning Theory 359
- Chomsky and Piaget 364
- Implications for Education 365
- Evaluation 367

**— 18 —**

**CONCLUSION: HUMANISTIC PSYCHOLOGY  
AND DEVELOPMENTAL THEORY 369**

- Humanistic Psychology 369
- Developmentalists as Humanists 375

**EPILOGUE: A DEVELOPMENTAL PERSPECTIVE  
ON THE STANDARDS MOVEMENT 381**

- The Standards Movement 381
- A Developmental Critique 384

**REFERENCES 392**

**NAME INDEX 412**

**SUBJECT INDEX 417**

# 1



## Early Theories: Preformationism, Locke, and Rousseau

The two great pioneers in child psychology were Locke and Rousseau. Locke was the father of environmentalism and learning theory; his heirs are scientists such as Pavlov and B. F. Skinner. Rousseau began the developmental tradition in psychology; his followers include Gesell, Montessori, Werner, and Piaget. Both Locke and Rousseau made radical departures from an earlier outlook called preformationism.

### **PREFORMATIONISM**

For centuries, people seem to have looked on children as fully formed miniature adults. The French historian Philippe Ariès (1914–1984) described how this view was predominant during the Middle Ages. Medieval paintings and sculptures, for example, routinely portrayed children—even newborns—with adult body proportions and facial characteristics. The children were

distinguished only by their size. It was as if the children had arrived preformed in the adult mold (Ariès, 1960, pp. 33–34).

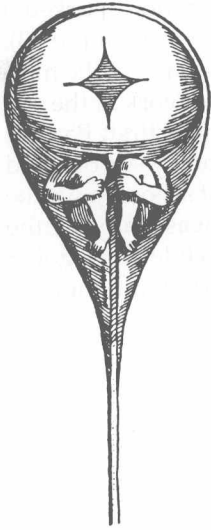
In medieval social life, too, Ariès argued, children were treated like adults. When they were 6 or 7 years old, they were typically sent off to other villages to begin working as apprentices. They learned carpentry, farming, domestic service, weaving, and other crafts and trades on the job. The child lived as a boarder in a master's house and often worked alongside other apprentices who were much older than he or she. No one paid much attention to the child's age, for the child had basically entered adult society. The child wore the same clothes, played the same games, and participated in the same festivals as the grownups (Ariès, 1960, pp. 71–72, 411). "Wherever people worked," Ariès said, "and also wherever they amused themselves, even in the taverns of ill repute, children mingled with the adults" (p. 368).

Ariès acknowledged that younger children—before the age of 6 or 7—were treated differently. People recognized their need for protection and care. But on the whole, Ariès suggested, people were indifferent to children's special characteristics. No one bothered to study, for example, the infant's developing speech or motor development; and when artists included children in their paintings, they depicted even newborns as miniature adults.

Some historians have challenged Ariès's views. Because medieval written documents are sparse, it's difficult to evaluate all the disagreements, but historians such as Barbara Hanawalt (1986) and Shulamith Shahar (1990) have gathered enough evidence to indicate that Ariès was sometimes prone to overstatement. It appears that apprenticeships, while common, were not as universal as Ariès claimed, and that 6- and 7-year-olds sometimes entered the adult workplace more gradually than Ariès implied. Still, by the age of 12 or so, most children were carrying out adult responsibilities, and I believe that Ariès's critics have done more to qualify Ariès's accounts than to refute them.

Moreover, other sources have shown that the image of children that Ariès highlighted—that of the child as a little adult—has been prevalent throughout the ages. This image is perhaps most evident in preformationistic theories in embryology. For centuries many scientists believed that a tiny, fully formed human, or homunculus, is implanted in the sperm or the egg at conception (see Figure 1.1). They believed that the human is "preformed" at the instant of conception and only grows in size and bulk until birth. Preformationism in embryology dates back at least to the fifth century B.C.E. and is found in scientific thinking throughout the ages. As late as the 18th century, most scientists held preformationist views. They admitted that they had no direct evidence for a fully formed homunculus, but they argued that this was only because it is transparent or too small to see (Balinsky, 1981, p. 11; Needham, 1959, pp. 34–35, 91, 213–222).

As we look back on the "little adult" views of the past, it's easy to regard them as quaint and antiquated. But we often lapse into the same thinking today, as when we expect young children to be able to sit as still as we can in



**FIGURE 1.1**

Drawing by Hartsoecker (1694) of a fully formed human in the sperm.  
(Reprinted in Needham, 1959, p. 206.)

social settings, or when we assume that their thinking is the same as ours. For example, I was recently standing in a supermarket checkout line and heard a mother next to me upbraid her toddler for having put several items that he liked into the shopping cart: “You know I can’t afford those things,” the mother said, as if the toddler had an adult knowledge of grocery budgets. We are vulnerable to an adult egocentrism and assume that even young children think as we do, even if our attitude isn’t as dominant as it once was (Ausubel, 1958, p. 24).

In embryology, preformationism gave way during the 18th century, when microscopic investigations showed that the embryo developed in a gradual, sequential manner. In European social thought, preformationism began to decline earlier, in the 16th century, accompanying changes in the occupational world.

During the Middle Ages, most of the occupations—such as farming, carpentry, domestic service, metal work, and weaving—required skill, but the adults believed that 6- and 7-year-olds could at least begin learning them on the job. Children, therefore, were able to mix in with adults. After 1500 or so, the occupational world showed clear signs of change. With the invention of the printing press, the growth of commerce and market economies, and the rise of cities and nation-states, the occupational world began to take on a “white-collar” look. New opportunities arose for merchants, lawyers, bankers, journalists, and government officials—occupations that required reading, writing, and math. A rising middle class saw that they could advance their families’ fortunes by providing their children with the academic instruction that

these new occupations required. This new demand for education sparked a tremendous growth of schools in 16th- and 17th-century Europe (Crain, 1993).

The upshot was that growing numbers of parents (especially in the middle class) were no longer willing to send their children off to work at the age of 6 or 7 years. Parents wanted their children to go to school first. Parents began keeping their children in school at least until they were 12 years old, and often until they were well into their teens. Thus the growth of schools gave the child a new status. The child was no longer someone who was ready for the adult world, but someone who had to be kept apart from it while undergoing an extensive education. The child was seen less as a little adult and more as a future adult (Ariès, 1960, pp. 329, 412).

## **LOCKE'S ENVIRONMENTALISM**

### **Biographical Introduction**

As the rising middle class pursued new opportunities, it challenged the traditional feudal order. The middle class no longer accepted a society in which everyone's place was predetermined by birth. It sought a brighter future, pinning great hopes on education to bring it about. In so doing, it helped usher in the modern way of life.

But the feudal regime wasn't about to just hand over its authority. It imposed economic regulations and waged an ideological war. It accused the new middle class—the bourgeoisie—of selfishly abandoning loyalty, honor, and the old ways.

In these battles, those seeking change drew inspiration from the intellectuals of the 18th-century Enlightenment, such as Denis Diderot and Condorcet. These writers argued that if people could rid themselves of the authoritarian state and church, people could live freely and democratically, and science, technology, and education would produce great progress for all. These writers, in turn, drew heavily on the late-17th-century theories of the British philosopher John Locke (1632–1704).

Writing in language that was refreshingly clear and sensible, Locke rejected the widespread belief that there are vast, innate differences among people. Instead, Locke argued, people are largely shaped by their social environments, especially by their education. Locke then showed how this happens and how education could be improved. To many Enlightenment thinkers, Locke's writings were full of wonderful possibilities. If one could change people's environments and education, one could produce an egalitarian, democratic society (Gay, 1969, pp. 511–516).

Locke was born in the village of Somerset, England. Locke's father, a small land owner, was the first to instill in him a belief in democracy. Locke attended the Westminster School and Oxford University, but found both plagued