Theories of Human Development
Part I
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Dr. Watson received the first Michael Laban Walzer Award for Excellence in Teaching at Brandeis. He has taught courses on research methods, developmental psychology, theories of development, and the development of play, art, and creativity. His research has been in four areas: the development of symbolic play in children, the development of drawing and art in children, children’s understanding of family roles and conflicts, and the causes of aggression and violence in children and adolescents. He has published numerous articles in journals and books and has edited several books. Dr. Watson’s research has been funded by the National Institute of Mental Health and the National Institute of Child Health and Human Development.
# Table of Contents

**Theories of Human Development**  
**Part I**

- **Professor Biography** ................................................................. i  
- **Course Scope** ............................................................................. 1  
- **Lecture One**  
  - Introduction—The Value of Theories ................................. 2  
- **Lecture Two**  
  - The Early History of Child Study .............................. 4  
- **Lecture Three**  
  - Two Worldviews—Locke versus Rousseau .............. 6  
- **Lecture Four**  
  - Later History—Becoming Scientific ......................... 9  
- **Lecture Five**  
  - Freud’s Psychodynamic Theory ............................... 11  
- **Lecture Six**  
  - How We Gain Contact with Reality—The Ego........ 14  
- **Lecture Seven**  
  - Freud’s Psycho-Sexual Stages ................................. 16  
- **Lecture Eight**  
  - Erikson’s Psycho-Social Theory ......................... 20  
- **Lecture Nine**  
  - Erikson’s Early Stages ............................................. 23  
- **Lecture Ten**  
  - Identity and Intimacy ................................................... 26  
- **Lecture Eleven**  
  - Erikson’s Later Stages—Adult Development ...... 29  
- **Lecture Twelve**  
  - Bowlby and Ainsworth’s Attachment Theory ........ 32  
- **Timeline** .................................................................................. 35  
- **Glossary** ................................................................................... 36  
- **Biographical Notes** ................................................................. 38  
- **Bibliography** ........................................................................... included in Part II
Theories of Human Development

Scope:
This twenty-four-lecture course provides an introduction to six highly influential theories of human development and the theorists who developed each theory. It is difficult to comprehend human nature without understanding our origins and the processes that guide our development from conception to maturity. Thus, the study of human development is a valuable tool, not only for understanding children and helping them to develop optimally but also for understanding ourselves as adults. The key to gaining insights into the phenomena of human development is to organize facts and data into coherent, scientific theories. Without such theories, scientists, including developmental psychologists and other students of human development, would make little progress in devising meaningful studies that further our understanding or in applying what we know in a way to benefit others. These lectures compare the historical and philosophical backgrounds from which each theorist emerged and the domains of development that each theory can explain. By examining the important points of each of the theories, the lectures help the student to compare them and see how they differ, where they converge, and how they complement one another to explain universal patterns of human development, individual differences, and abnormal development. Real-life examples and findings of major scientific studies are used to clarify the main points of the theories. In the end, the student will be prepared to judge which theories are valid and how each theory is valuable in giving us understanding of children and developmental processes.

The first lecture provides an introductory background for the study of the six theories and discusses the value of scientific theories generally. Lecture Two begins a discussion of the history that set the stage for the systematic study of child development. It covers the early history of conceptions of children before any scientific study of them existed. Lecture Three compares two major worldviews of human nature and development, as seen in the thinking of two influential philosophers, Locke and Rousseau. Lecture Four concludes the history of child study and the ways in which the major theories emerged.

The subsequent lectures discuss each of the six theories in turn. Lectures Five through Seven discuss Freud’s psychodynamic theory as it applies to child development, particularly to personality development. These lectures provide insight into the roles of the unconscious, competing drives, and the ways in which a person develops the ability to adapt to various demands from within and from the environment. Lectures Eight through Eleven discuss Erikson’s Psycho-social theory and how it developed from Freud’s influence to become the first theory to describe development across the entire life span. Lectures Twelve through Fifteen discuss the theory of infant attachment, as developed jointly by Bowlby and Ainsworth, and how this theory explains both early attachments and the development of close relationships throughout the life span. Lectures Sixteen and Seventeen discuss Bandura’s social learning theory and his related self-efficacy theory and provide examples of how his theory explains the crucial role of imitation in our learning and socialization. Lectures Eighteen through Twenty-One describe the most influential theory of development that has yet emerged, Piaget’s cognitive-developmental theory. The universal processes of development and the stages that Piaget theorized are explained. Lectures Twenty-Two and Twenty-Three describe the last major theory, Vygotsky’s cognitive-mediation theory. Vygotsky’s theory has emerged as a prominent one today, especially in influencing educational practices. The integrated cognitive and social focus of the theory is described. Lecture Twenty-Four provides a conclusion to the course by discussing how the various theories may be compared and integrated.
Lecture One
Introduction—The Value of Theories

Scope: The first lecture provides introductory background for the study of six major theories of human development. The lecture begins with a statement of the major objectives of the course. A quick test is given to allow students to assess where they stand on major issues regarding human development and to see how we all have naïve theories about the nature of human nature. Then, the lecture discusses the value of scientific theories for understanding development and human nature and the criteria for judging whether a theory is valuable. The lecture concludes with an overview of the course, which will first cover the history of concepts of children leading up to the major theories, then go on to examine each of the theories of Freud, Erikson, Bowlby and Ainsworth, Bandura, Piaget, and Vygotsky.

Outline

I. This twenty-four-lecture course has three main objectives.
   A. The first objective is for the student to grasp the value of developmental theories by becoming familiar with six theories that have had, perhaps, the greatest and most widespread influence on our current conceptions of child development and, more generally, on human nature.
   B. The second objective is for the student to learn more about the sequences and processes of human development by learning what each of the six theories can teach us.
   C. The third objective is for the student to develop an ability to judge critically the value of the different theories, as well as their weaknesses, and see where they converge with and differ from each other.

II. It is necessary to formulate and use scientific theories to understand human development.
   A. Human development is defined as the sequence of steps and processes that bring about change and reorganization in humans from conception through the entire life cycle.
      1. Human development applies to growth (such as height and weight), as well as increases in specific abilities and knowledge (such as increases in vocabulary size), but it mainly focuses on reorganizations in thinking that change the way one approaches tasks in one’s life. An example of one such reorganization, which occurs between the preschool and school years, is the child’s emerging capacity to consider another person’s viewpoint or perceptions of others at the same time that she considers her own viewpoint and perceptions. This shift in strategy or capacity is a major reorganization in children’s thinking and makes possible the ability to make accurate predictions about others’ intentions, to compete effectively, and to cooperate effectively with others.
      2. These reorganizations that we call development occur in many domains of our lives (for example, neurological, physical, cognitive, emotional, and social).
      3. Although developmental change occurs throughout the life span, most change occurs during childhood and adolescence; thus, child development is a large subset of all of human development.
      4. We can’t fully understand our human nature without understanding our origins and how we develop. The principles of development seen in childhood tell us about our human nature at whatever age we are.
      5. The study of human development comes from many disciplines, including medicine, biology, education, anthropology, and philosophy; however, developmental psychologists have contributed a large portion of the research and theorizing about human development. The six major theories that we will study came primarily from the field of developmental psychology, and they deal primarily with development from conception to maturity in young adulthood, although many of them explain development in adulthood as well.
   B. Scientific theories are systematic explanations that unify various observed phenomena and facts.
      1. Developmental theories provide metaphors, models, or formulas for understanding and predicting developmental processes and how development will progress under a given set of circumstances.
      2. No theory provides a perfect explanation or model of reality, but without theories, we do not make progress in our understanding and cannot use the facts we have gleaned.
III. Students will take a quick test to determine where they stand on some major issues of development. (For questions, see Lecture Twenty-Four.)
   A. The issues are concerned with the basic nature of children and the relative importance of nature and nurture to our development.
   B. We all have naïve theories about children and human nature, even without knowing about the major theories in the field of developmental psychology.
   C. Students can see if their naïve theories will change by the end of the course.

IV. Scientists use certain criteria to judge what makes a good theory.
   A. One can ask several questions about a theory. When the answers are usually “yes,” one can trust that the theory is good. The student should refer to this list as a guide for the evaluation of each theory.
      1. Does the theory reflect the real world of humans, particularly children?
      2. Is the theory supported by convincing evidence?
      3. Does the theory explain the past and predict future outcomes?
      4. Can the theory handle new data and discoveries?
      5. Does the theory stimulate new research and discoveries?
      6. Is the theory clearly understandable, and does it simplify rather than complicate the world?
      7. Is the theory self-satisfying?
   B. Developing a useful theory does have costs, however.
      1. Though a theory can organize and clarify one’s conceptions, it can also bias one’s outlook and blind one to additional facts.
      2. A theory can oversimplify the reality of the world.

V. The rest of the course is organized along the following lines:
   A. First, we will discuss the history of child study leading up to the development of scientific theories. Second, we will discuss each of the six theories in turn. Along the way, we will refer to the historical context of each theorist and compare the theories we have already discussed. Last, we will make some final comparisons and draw some conclusions regarding these theories.
   B. The six theories that we will cover are the following:
      1. First, we will discuss Sigmund Freud’s psychodynamic theory, the earliest of the six.
      2. Second, we will discuss Erik Erikson’s psycho-social theory of development across the entire life span, which was a modification and expansion of Freud’s theory.
      3. Third, we will discuss the integrated attachment theory of John Bowlby and Mary Ainsworth, which was a split with Freud and specifically dealt with the development of close relationships.
      4. Fourth, we will discuss Albert Bandura’s social learning theory and the importance of observational learning in development.
      5. Fifth, we will discuss Jean Piaget’s cognitive-developmental theory and learn how it revolutionized the study of child development.
      6. Sixth, we will discuss Lev Vygotsky’s cognitive-mediation theory, which provides an important complement to Piaget’s theory.

Supplementary Reading:
Miller, *Theories of Developmental Psychology*, Introduction. (This book is the best general reference for the entire course and will be cited for several lectures.)
Goldhaber, *Theories of Human Development: Integrative Perspectives*.

Questions to Consider:
1. At the beginning of this course and based on what you already know, how would you define a scientific theory and what criteria would you use to judge whether a theory was sound and valuable?
2. What do you see as the costs and benefits of using an established theory to guide your observations of human development and applications of knowledge to helping children develop?
Lecture Two
The Early History of Child Study

Scope: Lecture Two discusses the origins of the systematic study of child development to provide the historical and philosophical background for the theories that come later. The lecture discusses the way children were viewed during the pre-industrial era and the industrial revolution in Europe and America. In this period, people often showed a lack of humane concern for children, which translated into no systematic study of child development. The emergence of concern for children and, with it, evaluation of children came about in part because of the influence of a few physicians and religious leaders. The concept of children shifted from a lack of concern to a view of children as being born evil and, thus, needing redemption.

Outline

I. To understand the various theories of development, we must understand the historical background and cultural context in which they developed.
   A. Neurologically and physically, children have probably not changed much in thousands of years, but they have grown up differently, and our perspective of their nature has changed.
   B. The cultural context and problems of a particular historical and cultural period influence specific child-rearing practices, which in turn, influence the perspective that people have of human nature, child nature in particular. However, the influence is reciprocal.
      1. In hunter-gatherer societies, children were kept close to the parents, and there were strong parent-child attachments. Children were considered to be different from adults and did not have many responsibilities.
      2. In agrarian societies, the focus was on teaching people to be cooperative, to be part of a group, and to be economic assets to society. Children were more disciplined, had more responsibilities, and were, in effect, treated like miniature adults.
      3. In technological societies, children were not an economic necessity but became, instead, a financial liability. Children came to be valued for their potential and inherent worth. Children were treated differently than adults, the period of childhood was extended, and responsibility for upbringing and education was given to society’s institutions (for example, schools).
   C. The perspectives about children commonly held in a given culture will influence the theories that emerge.

II. Although there have been various perspectives of children in varying cultures of the world, we will trace the historical development of the child perspectives found in Europe and America because this sequence led to the formation of the major developmental theories that we will study in this course.
   A. Our survey of the history of child study and the changing perspectives that people had of children and their development will be divided into six phases, beginning with the pre-industrial and industrial revolution in Europe and America.
      1. The first phase was characterized by a lack of concern for children.
      2. In the second phase, an interest in children began to develop, but children were seen as being born evil and needing redemption.
      3. During the pre-empirical philosophy phase, John Locke and Jean-Jacques Rousseau influenced the way children were viewed.
      4. In the fourth phase, observational research came to the forefront. People began to collect data in a systematic way.
      5. The theorists that we will discuss in this course studied development during the fifth phase, a grand phase of theoretical science.
      6. The phase we are in today is called contemporary diversity. Theories still dominate, but no one theory has taken over.
   B. The first phase can be called the phase of no interest in child study and a lack of concern for children.
      1. Children in Europe during the industrial revolution and immediately before it seemed to be barely tolerated and, to a great extent, disregarded.
2. There was a high infant mortality rate, and children in much of Europe had only a one-in-three to one-in-four chance of surviving to adulthood. For example, in Paris in 1750, thirty-three percent of all children born were left in foundling homes or on doorsteps; most died.

3. We can point to many examples of the deplorable ways in which children were treated. For example, in England, boys and girls as young as four years old were often sent to mines to work like pack mules.

C. What was the cause of this lack of concern for children, and what effect did it have on people’s perceptions of children?
   1. When the chance of survival is low, children may not be as valued. Perhaps emotional investment in young children is too difficult in these conditions.
   2. These conditions were necessitated by the extreme poverty and high birthrate in most of the population.
   3. When children did survive infancy, they were expected to work for the family; this expectation seemed to reinforce a perception of children as miniature adults, with no different needs or developmental levels from adults, though they were obviously smaller and less experienced.
   4. Evidence for the view of children as miniature adults can be seen in the depictions of children in art at that time and in the way they were included in adult activities, which often included wild, ribald, and emotionally damaging activities, as judged by today’s standards.

D. This sad state of affairs was ripe for change, which led to a second phase: a concern for children, who were now seen as evil and in need of redemption. At least two sources of concern helped effect this change: physicians and religious leaders.
   1. Some physicians (such as William Cadogen in England in 1777) published advice on parenting to try to alleviate the worst of children’s suffering.
   2. In the early 1800s, a movement emerged that became known as the Sunday School Movement.
   3. Because of the pervading Christian religious beliefs, children were seen as being born evil (because of original sin) and in need of having the evil purged from them. Thus, the movement to provide religious education and to discipline children emerged.
   4. Harsh discipline and training that accompanied this perception of children is seen in the stories of Charles Dickens.
   5. Nevertheless, this perception of children did effect an increase in schooling and an improvement over the previous deplorable conditions.

E. During this same time period in America, there was a more optimistic view of children.
   1. America was seen as the “New Jerusalem,” a future utopia. Children were often highly valued as the “hope of the future.” They could make something of themselves; they had potential.
   2. There are, nevertheless, examples of the same strict view of children in need of redemption and the need for parents to guard against leniency and too much affection shown to their children.
   3. Educational reforms and pediatric medicine developed faster in America, perhaps because of this optimism.

Supplementary Reading:
Kessen, The Child, chapters 1–2. (This excellent book is out of print but should be available in many libraries.)
Aries, Centuries of Childhood.

Questions to Consider:
1. What effect do you think infant and child mortality rate has had on a society’s concern for children’s welfare and optimal development? If mortality rates were high, would a society tend to develop more or less concern for children? What other factors might influence the level of concern that develops?
2. From what you know of other non-Western cultures, do you think Europe was unusual in its view of children during the eighteenth and nineteenth centuries?
Lecture Three
Two Worldviews—Locke versus Rousseau

Scope: This lecture discusses how two major philosophers changed the prevailing perception of children and how two related worldviews are still present in our theories. Locke and Rousseau were both concerned with humane child rearing and education, but they held different views of children. Locke espoused a philosophy that children are neutral (“blank slates”) and society molds them. This approach represents the mechanistic worldview that humans are like machines. Rousseau espoused the philosophy that children are good, but society corrupts them. This approach represents the organismic worldview that humans are like organisms. The lecture compares these two views and gives examples of how they have been passed down to us today.

Outline

I. The third phase in our history of child study can be called a pre-empirical concern for children and was led by a few important philosophers.

A. This phase, in reality, began in the seventeenth century, overlapping with the changes we have already discussed.

B. Two major philosophers changed the prevailing concepts of their times and espoused philosophies of human nature that have since been associated with two major and conflicting worldviews.

1. A worldview is a pervading way someone has of looking at reality that is beyond empirical testing or proof yet influences the specific theories that one will develop and believe.

2. The two worldviews that we will consider are the mechanistic approach and the organismic approach; they are both still with us today.

II. The first philosopher was John Locke (1632–1714). He was an English academic and doctor who is best known as one of the primary founders of an English empiricist philosophy.

A. In 1690, Locke published *An Essay Concerning Human Understanding*, soon to be followed by a book entitled *Some Thoughts Concerning Education*. These books eventually revolutionized the thinking of many people concerning how humans develop and learn.

B. Locke is called an empiricist because, in his view, all that we become is the result of our experience with the environment. He challenged the pervading view that humans come into the world with many pre-formed notions and skills.

1. Locke coined the phrase “children are born as a *tabula rasa*,” a “blank slate,” on which society and the environment write. In his view, a child can develop any skill or any personality depending on how the world (and other people) influenced him.

2. As noted in the last lecture, people had been progressing from having no concern for children to perceiving them as being born evil and requiring society to redeem them. But Locke took this progression one step further as he argued that children are born neutral and society molds them.

III. Locke’s worldview that has become known as the mechanistic approach. He was not the first to hold this view, but he applied it to child development.

A. As its basic model, the mechanistic approach views humans as machines. Think of a computer as the model for humans.

B. Of course, in some ways, humans are like machines, and in some ways, they are not. The model is a metaphor for many characteristics that are thought to describe human nature.

1. Most important in this model, humans are seen as passive, reactionary organisms, just like machines. Like machines, they are inherently at rest and stable. They react only to stimuli from outside themselves.

2. Like a machine, something from outside must turn humans on. Thus, nurture (or the environment) plays a primary role in bringing about learning and development. (One can see in this view the *tabula rasa* model espoused by Locke.)
3. Along these same lines, in order to know or learn something, we acquire a copy of reality. In other words, we internalize facts and data from the outside world by reacting to what is presented to us.

4. Like machines, humans are seen as an organization of component parts. To understand humans, we can break them down into the component parts, much as one would break down a car or a computer. Also, by fixing the parts, we can fix the person. This is essentially a reductionist model of humans.

5. The focus is on individual differences in human development—how the world makes us into diverse individuals and what environmental manipulations work best to bring about a particular type of development.

IV. If Locke changed the view of children from one of being born evil to one of being born neutral, the second major philosopher, Jean-Jacques Rousseau, changed the view of children still further. He saw children as being born good but corrupted by society.

A. The Swiss philosopher Jean-Jacques Rousseau (1712–1778) came to espouse a view in contradistinction to Locke’s view.

B. In 1762, he published a novel, *Emile*, which laid out his view of human nature and child development.

1. The natural state of humans at birth is good. They have inborn capacities that allow them to develop along an optimal path and to become valuable and good adults.

2. However, society and its agents (such as parents, educators, and religious leaders) usually channel and corrupt this natural developmental path to cause the problems we see in children. Thus, Rousseau believed that the correct obligation of society and parents was to clear out the obstacles so that children could develop at their own rates and in their own ways without the biases and evils of the society being thrust upon them.

3. He perceived children as being far from miniature adults and not even blank slates, but perfect organisms that were well adapted to the requirements for each given age or stage of life.

V. Rousseau’s philosophy represents a second major worldview, an organismic approach.

A. As its basic model, the organismic approach views humans as organisms. Of course we are organisms, but it is the organism as a whole that is the basic model.

B. In a parallel fashion to the characteristics for the mechanistic approach described above, there are several key characteristics of the organismic model.

1. Rather than viewing humans as passive and reactionary, humans are seen as acting organisms. They are inherently active and changing, not at rest. Change, rather than stability, is the foundation of their nature.

2. Along with this active view, humans are seen to be self-motivated to seek out change. They do not need to be turned on or motivated by outside influences. Nature (that is, biological and internal influences) plays the primary role.

3. To know something, we actively construct what is known, rather than simply taking in copies of reality like a sponge. In a sense, we create reality.

4. Rather than studying humans in terms of their component parts, the entire system or the structural whole is the focus of study. In this view, the whole is greater than the sum of its parts.

5. The focus is on universals and norms of development for all individuals, rather than on individual differences. Related to Rousseau’s view of the noble child, child study focuses on learning what is the typical and normal path of development, rather than on the environmental interventions that can change things.

VI. The influences of these two philosophies and worldviews are still with us today.

A. Locke’s view and the mechanistic approach are seen today in behaviorist theories, in computer models of neural functioning, and in the focus on changing children by manipulating the environmental factors that will motivate them. For example, Bandura’s theory, discussed later in the course, developed originally from this approach.

B. Rousseau’s view and the organismic approach are seen today in stage theorists who see a natural unfolding of development and in approaches to education, such as the Montessori method, that stress that a child actively explores and learns for herself at her own rate. For example, Piaget’s theory, also discussed later in the course, developed from this approach.
Supplementary Reading:

Questions to Consider:
1. Consider various child experts of today. Based on their advice and opinions, which worldview are they likely to have?
2. Do you think that these two worldviews can be reconciled? Do you think a person can shift between believing in one view and then the other when focusing on different aspects or domains of development, or does it seem to you that people and theorists are generally truly set in one view or the other?
Lecture Four
Later History—Becoming Scientific

Scope: This lecture discusses how the first major theories of human development emerged and how the first scientists to study child development appeared on the scene. These first scientists were empirical in their approach to knowledge but functioned like naturalists, observing and describing children’s development but not performing any scientific experiments to test theories. These early naturalists have been called baby biographers. The lecture then discusses how some of the grand theorists emerged. It concludes with a discussion of the contemporary diversity of theories in the field of human development today.

Outline

I. After the influence of the philosophers, discussed in the last lecture, came the influence of empirical scientists.
   A. Science was emerging as a way of gaining knowledge about the world. One important way that scientists differed from philosophers was that they believed that empirical (that is, observable, objective) data were necessary to establish the validity of any philosophical idea or hypothesis.
   B. This empirical approach to gaining knowledge applied to the understanding of human development as well.

II. The fourth phase in our history of child study was an emergence of observational research on children.
   A. Some scientists began publishing detailed, systematic accounts of the development of their own children. These forerunners of developmental psychologists are sometimes called the baby biographers.
      1. The first known published account in 1787 was a diary of observations by Dietrich Tiedemann in Germany. The first child development textbook was written in the same manner by Wilhelm Preyer in 1882 in Germany.
      2. Other detailed observations of a person’s own children were published, one being written by Alfred Binet, who first developed intelligence testing in France. The most famous in modern times was published by Jean Piaget.
      3. In 1877, after publishing The Origin of Species, Charles Darwin published his detailed observations of his son. Ever the superb observer, Darwin discussed the development of emotions, causal thinking, the concept of self, and other domains of development that we are still attempting to understand today.
      4. Each parent in these baby biographies had access to more detailed observations than anyone else; yet, each biographer reflected the biases of his own theory of children’s nature. Darwin’s child supported his views of evolution and adaptation, Piaget’s children supported his theory of cognitive development, and so on.
   B. Following the work of early baby biographers, empirical scientists, who functioned like naturalists, began systematic observations of children and their development.
      1. These scientists described normal development and became more and more experimental in their approaches.
      2. Some of the most influential were G. Stanley Hall, who helped found the American Psychological Association and Clark University in Massachusetts, and Alfred Binet, who, as we noted, started the first intelligence testing and assessments of individual differences in children.

III. The fifth phase in our history of child study was a shift to theoretical science.
   A. Scientists of child development began contributing systematic theories to account for the sequences and processes of human development.
   B. John B. Watson, at Johns Hopkins University in the 1920s, took the earlier work of Pavlov in Russia and developed a theory that came to dominate all of American psychology, as well as theoretical approaches to child development.
      1. His theory was called behaviorism and can be traced back to the mechanistic approach of John Locke and forward to the work of B. F. Skinner and Albert Bandura.
      2. Behaviorist theory stressed the influence of the environment on a child, who as a blank slate, could be made into anything one wanted. It also changed the view of psychology. Psychology now became the study of observable behavior, rather than the study of intellectual and psychological processes.

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C. During this same time period, Arnold Gesell at Yale University developed a stage theory of normative behavior that was based on maturational processes (rather than Watson’s environmental influences). His work brought about the well-used phrases of a child “just going through a stage” and “the terrible twos.”

D. During this same period in Europe, Sigmund Freud was formulating the most extensive and far-reaching theory relating to development yet seen and was revolutionizing thinking about children. His theory has become known as the psychodynamic or psychoanalytic theory.

1. When Freud’s grand theory began influencing American developmental psychologists, it was in direct competition with Watson’s behaviorist theory.

2. This was expected, because behaviorism stemmed from a mechanistic approach and psychodynamic theory stemmed from an organismic approach.

E. The last grand theorist of child development also revolutionized European thinking before influencing American scientists. Jean Piaget’s theory of cognitive development was the most all-encompassing and systematic theory of human development to emerge and represented a clear embodiment of the organismic approach. It was the most influential stage theory that has yet emerged. In the 1970s and 1980s, it dominated research and thinking in developmental psychology throughout the world.

IV. The sixth and last phase of our history of child study can be called the phase of contemporary diversity.

A. Previous theories, particularly those of Freud and Piaget, are with us today implicitly in all our thinking about children and development. However, today, their theories do not dominate the field of child study as they once did.

B. The study of child development, and human development more generally, has become so diverse that each domain of development may have theories that lead research in that domain alone but do not address issues in other domains.

1. Some of the strong areas of research and theorizing today are in cognitive development, language development, children’s understanding of other’s thinking, emotional development, neurological development, the development of disorders and psychopathology, and development across the life span, especially in old age.

2. The six theories that we will study in future lectures have built on these early influences on child study and, though they do not dominate the entire field today, continue to have a strong influence on our conceptions of children and human nature.

C. Many of the most influential theorists that we will study were trained in areas outside the field of human development.

1. Freud was a physician.

2. Erikson had no formal academic training past high school, but he was a psychotherapist.

3. Bowlby was a psychotherapist.

4. Piaget was a philosopher and a biologist.

5. Vygotsky was trained as a lawyer and was a philosopher.

Supplementary Reading:


Questions to Consider:

1. What do you think are the pros and cons of having parents describe and explain development based on their observations of their own children? What might they provide that is most useful, and what biases might enter into their descriptions and explanations?

2. Understanding of children and useful research increased greatly with the introduction of systematic theories to explain child development. Yet what do you think the dangers are of having a theory guide one’s thinking?
Lecture Five
Freud’s Psychodynamic Theory

Scope: This lecture discusses how Sigmund Freud’s psychodynamic theory caused a revolution in thinking about human development. It describes Freud’s own history and how late-nineteenth–century concepts from medicine, physics, and Darwinian evolution influenced his theory. The lecture then discusses the foundation of his theory based on a concept of psychic energy and a hydraulic model for how the energy is used for adaptation. The lecture concludes with a discussion of the primacy of unconscious drives and the primary process thinking that accompanies the Pleasure Principle.

Outline

I. The first major developmental theory that we will discuss in detail is Sigmund Freud’s psychodynamic theory of development. It is called the psychodynamic theory because it focuses on dynamic psychological, and mostly unconscious, processes that are constantly at work to help the individual to continually adapt and re-adapt to the environment and cope with conflicts.

A. Whether one accepts Freud’s theory or not, and most psychologists today do not hold it in high regard, his concepts have become internalized into our thinking to the point that, implicitly, we have his theory with us all the time, influencing our thinking about human nature. That is the reason it is seen as having revolutionized psychology.
   1. When Freud first espoused his theory, it was seen by most as outrageous and dangerous. Its influence increased over time, despite the strong rejection and disbelief of many theorists, both then and now.
   2. Probably one reason for its strong influence was that it systematically unified many aspects of human nature that were in question. For example, for the first time, it brought the importance of unconscious processing to the forefront of our thinking; it explained our current problems by systematically linking them to our developmental history; it tied our various human relationships together; it explained little-understood aspects of motivation; it described our defensiveness and neuroses; and it explained the functions of dreams in a more complete way than had ever been done before.

B. Freud’s theory was meant to focus on how the entire personality develops, how we adapt to reality, how we develop disorders and psychopathologies, and how these disorders can be treated. However, a good deal of the theory also applies to child development. Those are the aspects of the theory that we will consider in these lectures.

II. Freud was a revolutionary thinker, but he was also a product of his times.

A. Freud was born in 1856 in Moravia, which was then in Austria, and lived most of his life in Vienna, but he became a refugee of Nazism and escaped to England in 1938. He died in England in 1939.
   1. Being Jewish, Freud was exposed to strong anti-Semitic prejudices in Europe, which likely colored much of his view of human nature.
   2. He received his M.D. degree in 1888 and, out of financial necessity, became a practicing physician rather than a neurological researcher. He also seemed to have a strong motivation to have an impact on the scientific and medical community that was biased against him.

B. Freud was influenced greatly in his thinking by three areas of science as they were understood at the time.
   1. He was interested in the current understanding of medicine, neurology, and mental processes. Because of this focus, he was influenced by researchers and physicians who were experimenting with new types of therapy (including the use of hypnotism and new drugs, such as cocaine). His understanding of the brain and its functioning was limited by the knowledge of the time.
   2. He was interested in the energy models then current in theories and research in physics. He developed a theory that incorporated a hydraulic energy model, in which energy could be transferred from one channel to another.
   3. As were other scientists, Freud was greatly influenced by Darwin’s theory of evolution, in particular the concept that humans had evolved processes and functions that helped them adapt, survive, and reproduce. These processes became prominent in the conceptualization of his theory.
III. Freud’s theory is based on an energy and drive-reduction model of human processing.

A. Freud believed that there was a given amount of psychic (that is, psychological) energy that was used to run all the psychological processing of the individual.
   1. He called this energy the *Libido*.
   2. The Libido is used by the person to meet basic biological needs and deal with challenges from the environment.

B. Freud believed that individuals are born with instinctual drives.
   1. A drive is activated when we have a need that causes discomfort or irritation (for example, hunger), and we are, thus, motivated to reduce that need (for example, by eating).
   2. By reducing the need, we also reduce the drive. Thus, this theory is a *drive-reduction model* of motivation.

C. Some of the psychic energy or Libido is channeled into the different drives to attempt to meet needs and reduce the drive states. In this sense, the organism adapts to the demands of the environment, as well as the biological demands of the organism.
   1. There are two main drives in humans.
   2. The first is the *Eros*, which is a drive based on striving for sexual pleasure, survival, and reproduction. This drive is seen as life affirming. For Freud, sexual drive (the Eros) pervaded most of what we were motivated to do.
   3. The second drive is the *Thanatos*, which is a drive based on striving for a complete static equilibrium of all bodily functions, ending in death. This drive is seen as self-destructive and aggressive toward others. Freud theorized about this drive after seeing so much aggression and destruction, including self-destructive behaviors in those around him.
   4. We cannot escape these inborn drives. They are always with us.

IV. The Libido and the drives reside in the unconscious processes of the neural system.

A. Freud called the source of the Libido, as well as the Eros and Thanatos drives, the *id* (or the *it* in the original German). The id refers to the unconscious part of the person, the basic animal functioning that a person is first born with.
   1. The processes of the id are basically amoral and irrational, and because they are unconscious, we are not aware of how they drive us most of the time.
   2. These processes are also unrealistic in many ways. We don’t take account of reality or of means-end relationships.

B. We can meet our needs by investing Libido in meeting them. This unconscious process, because it is what we are born with and appears first in our development, is called *primary process thinking*.
   1. We sometimes meet our needs directly; for example, a baby is hungry and sucks and obtains milk, with no conscious thought or planning on the baby’s part.
   2. However, often we do not meet our needs. In these cases, we can attempt to meet them by fantasizing about the pleasure of having the need fulfilled in our fantasy thinking, though not in reality; for example, when the baby is hungry, she sucks at nothing or imagines sucking milk. This fantasizing is a compensation process called *wish fulfillment*.
   3. This entire primary processing is based on the *Pleasure Principle*, which in Freud’s view, entailed the basic drive we have to seek pleasure and avoid pain and discomfort.

C. This is the state of humans at birth, a state that is not adaptive or able to meet most basic needs without some developmental changes occurring. We will discuss those changes in our next lecture.

**Supplementary Reading:**

Hall, *A Primer of Freudian Psychology*. (A good explanation of all of Freud’s theory.)
Gay, *Freud: A Life for Our Time*. (An excellent biography of Freud.)
———, *The Freud Reader*. (Selected readings from Freud’s most important writings.)
———, *An Outline of Psycho-analysis*. (A short summary of Freud’s theory that he wrote at the end of his life.)
Questions to Consider:

1. Does your personal sense of what motivates you most of the time fit with Freud’s concept of drive reduction being the primary way that humans function? Do you think Freud’s view of needs and drives fits your view of human nature?

2. Do basic drives in humans seem to you to fall under a sexual and pleasure-seeking drive and a self-destructive and aggressive drive?
Lecture Six
How We Gain Contact with Reality—The Ego

Scope: This lecture continues the description of Freud’s theory with a discussion of the non-adaptive nature of the unconscious id. It then discusses the development of the ego and its accompanying secondary process thinking, which is associated with the Reality Principle. The lecture also covers the subsequent development of the superego, which describes the process of how the individual is influenced by and uses society’s norms. The lecture concludes with a discussion of the important mediator role of the ego and how this three-part process in the individual can be adaptive or maladaptive.

Outline

I. As we discussed in the last lecture, the id is the term Freud gave to the part of our mental process that is the source of libidinal energy and that functions to meet the individual’s basic needs. Because it is wholly unconscious and irrational in its functioning, it does not adapt to the demands of reality.
   A. Examples of this irrationality include the id’s use of wish fulfillment to attempt to reduce drives and gain pleasure. If a person is hungry, the id does not discriminate among the effectiveness of actually eating food, sucking, dreaming about food, or fantasizing about food.
   B. However, these irrational actions usually lead to frustration and unmet needs. Empty sucking or thinking about food does not fill one’s stomach.
   C. Frustrations and unmet needs force a person to begin adjusting to reality; with this need to be more successful at meeting needs comes dawning consciousness and reality orientation.

II. The ego (or the I in the original German) is the term Freud gave to the part of the mental processes that becomes conscious and deals with rational problem solving.
   A. Notice that Freud cleverly called the first process the it, implying no self-concept or sense of identity; the second process is called the I, implying a developing self-concept and identity.
   B. In Freud’s conceptualization, the emergence of the ego and consciousness is a direct result of the id and the primary processes being so maladaptive and inefficient at meeting the basic needs.
   C. The ego channels libido from the id to function and develops a problem-solving process called secondary process thinking because it develops after primary process thinking.
      1. Secondary process thinking is reality oriented. Thus, this thinking involves the Reality Principle rather than the more basic Pleasure Principle.
      2. Now, when a person is hungry, she doesn’t just suck or fantasize but attempts to get food. For a baby, that might mean crying and trying to get one’s parent to feed her. For an older child, that might mean going to the refrigerator and fixing a sandwich.
      3. With conscious processing, one also learns what actions might lead to harm and punishment. One learns to postpone gratification to develop the appropriate means to attain it.
   D. Often, the immediate demands of the drives in the id and the demands of reality and problem solving come into conflict.
      1. At times, libidinal energy simultaneously drives both the pleasure seeking of the id and the problem solving of the ego.
      2. As the ego develops and becomes stronger, it takes on the role of the controlling structure to help the person adapt and cope.
      3. The ego often suppresses the drives of the id, and the id, in return, channels its demands and drives into various forms, often camouflaged so that they can pass by the ego.

III. Eventually and, according to Freud, through resolution of the Oedipal conflict (which we will discuss in the next lecture), the individual internalizes parental standards (and with them, societal standards) to form a third part or process of the mental processing system, the superego.
   A. The superego is, in effect, the internalized culture and is the way that cultural values and standards are passed on.
B. The superego has two parts.
   1. The first part is an *ego ideal*, the view of how one should ideally behave and function. This part functions like a standard by which one can compare one’s real functioning and strive to achieve the ideal.
   2. The second part is a *conscience*, a process that acts like a judge of the person as to how well he or she is living up to the ego ideal.
   3. The conscience drives a person to reward or punish herself based on how well or poorly she is doing in achieving the ego ideal.

C. The superego is partially conscious but also partially unconscious.
   1. Therefore, the superego is not always rational and reality oriented.
   2. When the superego becomes too strong, it can distort reality and become maladaptive, just as the id can. Thus, the superego can also cause conflicts with both the id and the ego.

D. Therefore, in Freudian terms, for a person to develop a healthy personality and be most adaptive, the ego must become strongly developed and take on a strong mediator role among the id, the superego, and demands of reality.
   1. In Freudian terms, having a strong ego does not have the negative connotations of being egotistical.
   2. For Freud, having a strong ego means being adaptive and in balance. It does not mean being selfish.

IV. Sometimes, the actions or strategies used by the ego to handle these internal conflicts become maladaptive.
   A. Freud called these various processes *ego defense mechanisms*. They are processes or methods that the ego develops for resolving internal conflicts.
      1. One example of a commonly found defense mechanism is *repression*, in which the person represses any conscious thoughts or awareness of a conflict or drive. For example, a person may have a strong sexual attraction to another individual who is a taboo object of affection (such as a minor or a married person), but the person may not be aware of any such drive. Thus, the drives of the id are repressed.
      2. A second common defense mechanism is *projection*, in which a person attributes the conflict or drive to someone else rather than to himself. For example, a person may have feelings of hate and aggression toward someone else but be unconscious of these drives because he believes that the other individual hates and is being aggressive toward him, rather than the other way around.
      3. A third defense mechanism that is often quite adaptive is *sublimation*, in which a person channels a dangerous or taboo drive toward an acceptable goal. For example, a person with an overly strong sex drive may sublimate this drive into painting beautiful pictures of women or into carrying out valuable medical research on sexual dysfunctions.
   B. For Freud, many far-reaching human endeavors are motivated by the basic drives and are either adaptive or maladaptive based on the way the three parts of one’s mental processing have developed.

**Supplementary Reading:**

Freud, *Beyond the Pleasure Principle*.

———, *The Ego and the Id*.

**Questions to Consider:**

1. Freud uses metaphorical language for his mental processes (that is, the id, ego, and superego), which leads many to view these processes as separate entities at war with one another inside the person. That is probably a distorted view of the processes. Nevertheless, do you actually see some validity to these aspects of our mental functioning? Do we have conflicting drives that must be reconciled, much as Freud described them?

2. Critics of Freud often point out that he focused so much on internal conflicts that he neglected the larger conflicts that influence our development—the conflicts and challenges we face from the environment and from relationships with others. Do you think Freud distorted the importance of internal drives and conflicts in determining our healthy development?
Lecture Seven

Freud’s Psycho-Sexual Stages

Scope: This lecture concludes the discussion of Freud’s theory with a description of Freud’s stages of psycho-sexual development. It first discusses Freud’s concept of erogenous zones as the shifting focus of libidinal energy. The five stages are discussed—oral, anal, phallic, latent, and genital—along with the fixations that may occur at each stage. The lecture then discusses the pivotal shift in development surrounding the Oedipus complex and its resolution. We conclude with a critique of Freud’s theory.

Outline

I. In the last lecture, we discussed the development of the three-part mental process involving the id, ego, and superego. In this lecture, we discuss another sequence of development that Freud proposed: the five psycho-sexual stages of development.

A. In Freudian terms, a stage is a time in development in which much libidinal energy and attention is focused on specific ways of gaining pleasure and learning to adapt. A new stage arises when the focus shifts.

B. As we have mentioned, people are strongly motivated by the Eros drive to obtain sexual gratification, gain pleasure, and avoid pain. Freud accurately noted that there are different regions of the body that give us sexual (or sensual) pleasure.

1. He called these regions erogenous zones.
2. He believed that although all erogenous zones could give one pleasure, the primary zone of focus shifted at different times in the developmental course.
3. The primary erogenous zones, in the order in which they become the focus of pleasure, are: the oral zone, the anal zone, and the phallic zone.
4. Freud believed that certain habits or psychological and personality styles would develop at each stage, depending on the way one gained pleasure and dealt with the shifting erogenous zones. Thus, these stages are not just sexual or erogenous stages, but psycho-sexual stages.

II. Freud proposed five stages of development, which he termed psycho-sexual stages.

A. The first stage is the oral stage. One can observe how newborns almost immediately start sucking, then learn to put almost everything in their mouths to suck, chew, or attempt to eat.

1. Freud believed that in terms of adaptation and evolution, it would make sense for this stage (or focus) to be present at birth. In this way, we are predisposed to meet our basic biological needs and discover what we can and can’t eat.
2. Because the oral stage has a primary mode of incorporating objects, it made sense to Freud and others that this stage was associated with a baby first learning to be attached to the mother and to be connected metaphorically, “to incorporate others and parts of the world into oneself.”
3. However, when an individual sticks with a stage or zone too long or has problems learning to master the tasks associated with that stage, the person may fixate a good deal of libido at that stage rather than shifting the energy and focus to the next stage.
4. When people fixate at the oral stage, they may carry immature oral behaviors into adulthood. Examples of fixated oral behaviors include chewing pencils, biting fingernails, smoking, enjoying kissing, and seeking oral sex.

B. The second stage is the anal stage. Freud argued that because the anus was also part of the important digestive system and was at the opposite end from the mouth, this was a logical next shift in focus to another erogenous zone.

1. The anal stage seems to emerge at a point when children are consciously aware of elimination functions and bowel functions and are beginning to be toilet trained.
2. Freud argued that a young child gained a great deal of pleasure through the sensations in the bowels and sphincter muscles in both retaining his or her feces and releasing and letting go.
3. Thus, development during this stage deals with retaining and giving away. In psychological terms, these issues are associated with gaining independence and autonomy, along with making distinctions
between the self and others. If the child previously became attached to the mother, now he or she needed to find some autonomy.

4. When people fixate at the anal stage, they may carry with them certain “anal” behaviors. Examples of fixated anal behaviors are having problems with constipation or loose bowels throughout one’s life and seeking anal sex.

5. Two personality types have been associated with anal fixations. The anal-retentive personality involves holding onto things by being stingy, anxious about order, and overly neat. The anal-expulsive personality involves letting go by being loose with money and belongings and being overly sloppy and messy.

C. The third stage is the phallic stage. Freud believed that young (preschool) children began focusing on their genitals as the primary source of sensual pleasure.

1. This focus can be seen in frequent fondling and rubbing of the genitals and in various forms of childish masturbation. The focus can also be seen in emerging interest in sexual humor and discussion of the genitals and other bodily functions that normally remain private in society.

2. This genital focus was called “phallic” probably because of a male bias on Freud’s part. A better term would have been the genital stage, but Freud used that term for a subsequent stage.

3. During the phallic stage, Freud believed that virtually all children go through an Oedipal conflict, which we will discuss a little later. In any case, the resolution or end, of the Oedipal conflict brought an end to the phallic stage, usually sometime between five and six years of age.

4. Examples of fixations at the phallic stage are continuing masturbation, homosexuality, ongoing stressful relationships with one’s parents, and self-oriented pleasure seeking (thus, a high level of egotism).

D. The fourth stage is the latency stage. Rather than being a stage focused on gaining erogenous pleasure through one bodily zone, this stage is really a break in the sequence, a moratorium during the middle childhood years.

1. Freud believed that through the resolution of the Oedipal conflict, the child’s sexual drives were driven deep “underground,” or into the unconscious for a period of time.

2. During this period, the child is not driven by sexual needs but, rather, attempts to master tasks from the environment (such as from school) and learn about society’s standards.

E. The fifth and final stage is the genital stage. But didn’t we already have a focus on the genitals? In this stage, Freud believed the sexual drives were rekindled with the onset of puberty and hormonal changes. The child again gained pleasure through the genitals.

1. However, this time around, the focus is on gaining mutual pleasure with another sex partner.

2. Thus, this stage might better be termed a stage of heterosexual pleasure, that is, if one has not fixated too much libido in the phallic stage and has resolved parental relationships adequately. Otherwise, a homosexual focus might develop.

3. In learning to coordinate sexual drives and pleasure, in this stage, the individual learns to substitute an appropriate love partner for the parent and make a final break with the parents. The adolescent masters social interactions and the development of intimate relationships that take him or her into adulthood.

F. By reviewing the supposed fixations that may occur at each stage, one can see that some are rather harmless. In fact, some give variety and spice to life. Most people have no problems accepting kissing, for example, as a continued source of pleasure. However, other fixations are maladaptive and can even become psychopathological.

III. We now return to the Oedipal conflict of the phallic stage. In Freud’s view, the Oedipus complex is a pivotal factor in development that he considered crucial for his entire theory. Apparently, Freud went through an Oedipal conflict in his own life, which influenced his theorizing.

A. The Oedipus complex describes the desires, jealousies, and confusions that children have in working out strong feelings they have toward their parents.

1. Freud called this conflict the Oedipus complex because of its similarities to the story of King Oedipus in the Greek myth. Oedipus, unbeknownst to himself (and reflecting the unconscious nature of this conflict), killed his father and married his mother. Freud believed that many important myths and stories reflected universal emotional issues found in our species.
2. Often, the same conflict in girls is called the Electra complex; however, in this discussion, as is often done, we will use the term Oedipal for both males and females.

B. In the first phase, a boy in the midst of the phallic stage develops a strong sexual desire for his mother. In effect, the boy wants the mother’s affection and intimacy all to himself.
   1. This desire is immature and, for the most part, unconscious. The Oedipus complex does not denote adult-level sexual desires or understanding in young children.
   2. The boy realizes that his father is married to his mother and has her affection. The boy gets jealous of the father and shows antagonism, resentment, and some aggression toward the father.
   3. The boy may fantasize about getting rid of the father (that is, through wish fulfillment and primary process thinking). This kind of thinking scares the boy into thinking that the father knows of his thoughts and may retaliate.
   4. Thus, the boy may develop castration anxiety, thinking the father may punish the boy by castrating him.
   5. Girls go through a parallel conflict, reversing the roles of father and mother. However, according to Freud, the girl does not have castration anxiety but develops penis envy because she wants what her father can give her and her mother does not have.
   6. Many observers of children have criticized this aspect of Freud’s theory, believing that his description of girls was not evidenced in reality and probably stemmed from Freud’s focus on the male version and lack of observation of girls. The main thrust of Freud’s argument, however, does not depend on these problematic descriptions of girls.

C. In the second phase of the conflict, the emotional dilemma is resolved. In effect, the boy really cannot marry his mother and have her to himself; he really does not want to get rid of his father because he loves him.
   1. To escape the retaliation of the father and the emotional turmoil he feels, the boy comes to identify with the father in two ways.
   2. First, the boy shows defensive identification. By becoming like the father, the boy attempts to make the father his friend rather than his enemy or competitor.
   3. Second, the boy shows instrumental identification. By imitating the father and becoming like him, the boy is more likely to get the same rewards and benefits that the father has.
   4. In identifying with the father, the boy internalizes the father’s viewpoints and values, including society’s standards as passed down through the father. In addition, the boy gives up on his mother as a love object.
   5. According to Freud, this resolution has three important results. First, the boy develops a superego and incorporates the moral standards of society. Second, he develops a masculine gender-role identity from the father and other male role models. Third, his sexual desires and drives go into a latency period.
   6. For girls, a parallel resolution takes place, in which they reject the father as a love object, identify with the mother, and develop a feminine gender-role identity.
   7. One can see that in Freud’s theory, if the child does not resolve this conflict, he or she will not develop optimally thereafter. Numerous examples exist of family dysfunctions that can harm a child in accomplishing this normal development.

IV. In conclusion, we need to critique Freud’s theory. Currently, many people, including therapists, regard Freud’s theory as valuable in explaining real-life development and human nature. However, many others reject most of his theory as being invalid.

A. Freud, through a combination of insight, genius, and the cultural context of his life, seemed to hit on some truths about human nature that we generally accept today but that were not accepted before Freud came along.
   1. Our unconscious is always working and influencing our motivations and actions.
   2. Previous events and relationships, especially from childhood, strongly influence later relationships and behaviors.
   3. We do indeed seem to use defense mechanisms and have conflicting desires and motives as part of our mental processing.
   4. Sexual desire is a strong motivator even before puberty.

B. But many see errors in Freud’s theory, even in domains where he could have avoided errors.
1. He did not seem to be a keen observer of many periods of child development or to know many children. Thus, his theory does not seem to match the way children typically develop, as observed by dedicated developmental researchers in the field today.

2. For example, the psycho-sexual stages do not seem to describe or explain the most important aspects of development as we now understand them. In addition, the stages and the Oedipal theory shortchange females in particular and led Freud to some biased views of female development as being incomplete or less than optimal.

3. Although we see various personality styles in adults, such as anal-retentive types, there is almost no empirical evidence that fixations at a particular stage lead to these differences in personality and style.

4. The Oedipal conflict may not be universal, does not explain most parent conflicts and family jealousies, and has little relation to normal gender-role development and internalization of moral standards.

5. Though sexual drives may be present before puberty, they do not seem to be the foundation of almost all motivators, particularly in light of recent research on cognitive development and motivations to gain competence.

C. In conclusion, we should take Freud for what he does offer and reassess his theory in light of modifications that were made by other theories. Next, we will discuss one of the most influential and revolutionary modifications of Freud’s theory—Erikson’s psycho-social theory.

Supplementary Reading:
Freud, The Sexual Enlightenment of Children. (The chapter on the phobia of a boy, Little Hans, provides the primary empirical source of data for Freud’s theorizing about the Oedipal conflict.)
———, New Introductory Lectures on Psychoanalysis.

Questions to Consider:
1. From your experience with children, do you believe that the Oedipal conflict or some aspects of it are common in most children? What do you think the effect of early sexual abuse or over-stimulation of children would have on such a conflict? What do you think the effect would be of the same-sex parent as the child leaving the home, either through death or separation?

2. In what ways does Freud’s theory strike you as a helpful and valid description and explanation of developmental processes? In what ways does his theory strike you as invalid and simply fiction? What is the source of evidence for your opinions?
Lecture Eight

Erikson’s Psycho-Social Theory

Scope: This lecture introduces Erik Erikson’s *psycho-social theory of development*. It first discusses the Neo-Freudians and the revisions they made in Freud’s theory. The primary shift was from a focus on internal conflicts and the importance of the sex drive to a focus on social influences and adaptation to reality. The lecture then discusses Erikson’s history, which included his psychoanalytic training and his experience with his own identity crisis. The lecture then describes how his stages of development are based on the need to develop mastery and personal identity through a series of crises that occur at different points in one’s life cycle. The lecture concludes with a discussion of the continually recycling nature of the issues and crises in one’s life.

Outline

I. After Freud, many of his followers tried to bring his psychodynamic theory in line with more recent empirical work by focusing on social and environmental influences on development and on how we adapt to reality, rather than on the internal conflicts between basic sex drives and prohibitions from the ego and superego.
   A. These theorists came to be known by two titles: *Neo-Freudians* and *ego psychologists*. The first term is self-explanatory. The second term refers to the fact that these theorists stressed the importance of the developing ego in controlling internal conflicts and in developing real-life problem solving skills and rational behavior. Nevertheless, Freudian theory was still the foundation of their work.
   B. The most influential of the ego psychologists to theorize about developmental sequences and issues was Erik H. Erikson.
      1. Erikson began with Freud’s theory of the underlying sexual basis of development and the psycho-sexual stages.
      2. He went on to describe how the different lifestyles of men and women were related to their anatomical differences and the ways in which each sex gained gratification.
      3. He also completed several cross-cultural observations and analyses of some famous historical figures based on the psychodynamic orientation.
      4. However, he is most famous for changing the focus of the stages of development and being the first to systematically describe developmental changes that occur throughout the life span.

II. Erikson’s theory was greatly influenced by his own personal history and can be tied directly to events that happened in his life.
   A. Erikson was born in 1902 in Germany to Danish parents. He died in 1994 in Massachusetts. He never knew his father and learned only in adolescence that his parents had never been married.
      1. Erikson’s mother married a German Jew, Theodore Homburger, and Erikson was raised Jewish, with the last name of Homburger, until he graduated from high school.
      2. He experienced much anti-Semitic prejudice and ostracizing on all sides and showed confusion about who he really was.
      3. After high school, Erikson drifted around Europe and tried out various jobs, including artist and art teacher. He never received higher than a high school diploma. He personally lived out the identity crisis and role confusion that later became central to his theory.
      4. At one point in his wanderings, he tutored an American family in Vienna and was introduced to Freud’s theory. He went through psychoanalysis with Freud’s famous daughter, Anna Freud, then became one of her star students, eventually completing psychoanalytic training.
   B. In 1933, concerned with the growing threat of Nazism, he immigrated to the United States and became the first child psychoanalyst in Boston.
      1. In his professional career, he worked at Harvard University, then Yale, then the University of California at Berkeley; he finished his career back at Harvard.
      2. Although Erikson’s writings were highly influential on the thinking of many developmentalists, he was not accepted by some, in part because of his unusual professional development and lack of an advanced degree.
III. Although Erikson described stages of development based on Freud’s sexual connotations, his stages quickly took on a social focus reflective of the ego psychologists.

A. His first full description of his eight stages was published in his most influential book, *Childhood and Society*. (The more complete second edition came out in 1963.)

B. In Erikson’s view, human development is primarily driven by a strong need for the individual to deal with certain problems that occur at different times in his or her life and require the individual to gain mastery in solving the problems or resolving the issues.

C. Most important in this theory, the individual continually seeks to understand who he or she is and to develop a coherent identity, or sense of self.

D. The series of events or issues that one encounters in life constitutes a series of crises that requires the individual to gain mastery over problems and further develop a coherent sense of identity. Thus, each stage is, in fact, a type of identity crisis for the individual. (As noted above, one can see Erikson’s personal experiences in these stages.)

1. For Erikson, a crisis occurs when the issues or problems faced create an acute emotional reaction that needs to be dealt with and resolved for the person to feel at peace or comfortable once again.

2. The crises are brought about in large part by the emerging skills and opportunities open to the person and the social relationships and obligations that the person is exposed to (such as from parents, peers, school, and career choices).

3. Erikson framed each of his stages in terms of what was accomplished or mastered if an individual successful resolved the crisis and what occurred if the individual did not successfully resolve the crisis. For example, the first stage is one of gaining a sense of trust, if the child is successful in dealing with the crisis at this stage, versus developing a sense of mistrust, if one is unsuccessful in dealing with the crisis. The last stage is one of gaining a sense of ego integrity versus developing a sense of despair.

4. Erikson’s sequence of stages is hierarchical and cumulative in that the resolution of one crisis and mastery of a given level of identity make possible the next level of problems and issues. In other words, it would be extremely difficult for someone to resolve the crisis at stage 3 if she had not already resolved the crises at stages 1 and 2.

IV. Erikson’s first five “psycho-social” stages paralleled Freud’s original psycho-sexual stages; however, Erikson thought that development did not end in adolescence. He described three additional stages that occur from young adulthood to old age. These adult stages are some of the most revolutionary aspects of his theory.

A. Erickson’s eight stages are:

1. Trust versus mistrust
2. Autonomy versus shame and doubt
3. Initiative versus guilt
4. Industry versus inferiority
5. Identity versus role confusion
6. Intimacy versus isolation
7. Generativity versus stagnation
8. Ego integrity versus despair

B. Because Erikson focused on the influences of the environment and of social relationships, it seemed to follow that further development would occur even after a child had reached reproductive maturity at adolescence. Erikson was the first developmental theorist to seriously consider development beyond adolescence. After his theory and in part because of it, looking at development from a life-span perspective became the rule rather than the exception.

C. One revolutionary aspect of Erikson’s theory was that he thought that if a crisis were not completely resolved when it first emerged, a person could return to the issues surrounding that crisis and deal with them later on. For Freud and others, what went on in childhood, in many ways, had an irreversible influence on one’s development, but for Erikson, the entire life span was available for a person to work out issues and develop successfully. There need be no irreversible or permanent failure of development.
V. In Erikson’s view, all the crises and issues surrounding the development of identity and the mastery of various tasks and skills are always present at every period of a person’s life. However, the focus on each crisis occurs in an invariant order and becomes of primary importance to the individual during a certain time period.

A. Nevertheless, all crises and issues are always present, even if not the focus of attention.
   1. For example, even as adults, we all deal repeatedly with issues of trust versus mistrust, autonomy versus shame and doubt, initiative versus guilt, and so forth, even though we have already passed through those stages.
   2. In effect, each of the major issues of development is recycled whenever another event in one’s life elicits it.

B. Two major issues continually recycle throughout our lives.
   1. First is the development of a sense of connectedness to others (as shown in the crises of developing trust and, later, in developing intimacy).
   2. Second is the development of a sense of independence from others (as shown in the crises of developing autonomy and, later, in developing a unified identity).
   3. These basic needs of connectedness and independence seem to complement and support each other rather than oppose each other, at least in the successful resolution of Erikson’s stages.

Supplementary Reading:
Miller, Theories of Developmental Psychology, chapter 2.
Coles, The Erik Erikson Reader. (A book of selected readings to give one a sense of Erikson’s thinking and theoretical thrust.)

Questions to Consider:
1. To what extent in your life does it seem as if your course of development has been influenced by major crises and dilemmas? Which do you think were the most important in determining the direction of your development?
2. Does it seem to you that issues and problems in development continually recycle or resurface and must be dealt with several times in different contexts and on different levels?
Lecture Nine
Erikson’s Early Stages

Scope:  This lecture describes the first four stages in Erikson’s theory. Stage 1 is a crisis for the infant of developing trust versus mistrust, which is the foundation for connectedness. Stage 2 is a crisis of developing autonomy versus shame and doubt, which is the beginning of the development of independence based on the foundation of trust. Stage 3 is a crisis of developing initiative versus guilt, and stage 4 is a crisis of developing industry versus inferiority.

Outline

I. In this lecture, we will describe Erikson’s first four stages, which provide the foundation of development for the child.
   A. As you will recall, Erikson described each stage in terms of a major crisis that had to be met. However, infants and young children are not conscious of each crisis. They simply are motivated by their emotions and needs to develop a particular type of identity and competence at each stage.
   B. In Erikson’s view, the foundation for all development is having a sense of connectedness with other people, which begins with a trust in others. With this sense of connectedness as a foundation, a child can then branch out to develop a sense of independence. These two developments—connectedness and independence—are clearly illustrated in the first four stages.

II. Erikson called the first stage development of a sense of trust versus mistrust.
   A. A newborn needs to rely on others to survive.
      1. As the infant experiences greater periods of consciousness, he may have feelings of insecurity and a lack of predictability and control over his world. Therefore, he must develop a sense that there is someone that he can trust and rely on.
      2. The infant’s parents are typically the people he will first depend on for his survival and to give him security and comfort.
      3. When his parents (or parent substitutes) consistently meet his needs, he will develop a sense of security and trust that his needs will be met and someone will take care of him.
   B. In addition, a baby comes into the world with no understanding of causal relations.
      1. Therefore, to be able to develop any mastery over the environment, the baby needs to learn about means-end relations—what events predict what results and how one can use the knowledge of means and ends to influence what will happen.
      2. Predictability and control are necessary for anyone to be able to adapt successfully in the world.
      3. When parents and others consistently deal with an infant, the infant also learns about the consistent and stable nature of his world. This is also part of the sense of trust—trust in the orderliness of the world.
      4. To understand this development, consider what happens when a baby is hungry and cries. What is the message he is learning? If his mother feeds him every time he is hungry, he learns to trust his mother to meet his needs and take care of him, and he learns that his world is predictable and controllable. His crying brings food.
      5. Even when his parents do not meet his every need every time, the child can learn to trust the world and to trust them, just as long as they are consistent and he can figure out under what conditions they will meet his needs.
   C. It makes sense, then, that the beginning of trust brings with it the child’s sense of agency or control of the world and that this sense of agency is tied to his connectedness to other people who are significant in his life.
   D. If the child does not have this consistent care and predictability in his world, he will find it difficult to emerge from infancy with a sense of trust of others and the world around him and may instead develop a strong sense of mistrusting others and the world.
      1. One can think of cases involving child abuse, neglect, or abandonment; cases of war and deprivation; or cases of constantly changing caretakers in which the child cannot develop a foundation of trust.
2. In these cases, the child would have a view of a capricious world that is hard to predict and people who cannot be relied on. Thus, the foundation for subsequent development would not be in place.
3. As Erikson saw it, one cannot overstress the extremely important foundation laid down in the first stage.

III. Erikson called the second stage development of a sense of autonomy versus shame and doubt.

A. After the child has developed a sense of trust, she will have confidence to try out actions and learn about her world.
   1. Now, the child attempts to learn self-control and master many tasks independent of her parents.
   2. If, in stage 1, the child’s identity was tied to an attachment to another person (usually the parent), now her identity includes being separate from the other person (the parent). Thus, the child practices autonomy but on the secure foundation of still having the parent there for her and having a basic sense that the world is predictable and, therefore, controllable.
   3. An example of this development is when a child who had her parents feed her and take care of her needs now wants to do things for herself—to hold the spoon and cup and feed herself, to wash herself, to climb stairs on her own, to get into things on her own.
   4. Although this stage originally corresponded to Freud’s anal stage, toilet training is just one of the many areas in which a child attempts to gain some self-control and mastery on her own.

B. How can this development go awry?
   1. First, if the child does not have a secure sense of trust, she is less likely to take the chances necessary to try out independent actions.
   2. The major roadblock to development during this stage occurs when the child attempts these autonomous behaviors and is criticized, put down, or punished for her attempts. If her parents punish her every time she tries to do something on her own, such as feeding herself or trying to wash herself, she will likely develop a sense of doubt in her abilities.
   3. Parents may also shame a child for doing things wrong, such as having toileting accidents, and make the child feel ashamed of herself and what she can accomplish.
   4. The development of a basic sense of shame and doubt in oneself during this stage would inhibit the child’s further development of independence in the next stage.

IV. Erikson called the third stage development of a sense of initiative versus guilt.

A. This stage is a continuation of the autonomy and independence begun in stage 2 and continues to develop based on the foundation of trust to support it.
   1. If the child has been successful at developing autonomous skills, he will now attempt to master ever more extensive skills and actions.
   2. He will explore new ways to do things and to manipulate people to get what he wants. He will learn what it takes to influence others.
   3. He will attempt to form new relationships with new people and will attempt to meet his desires directly, not always waiting to be taken care of by his parents or waiting for them to tell him what to do.

B. Examples of this development are:
   1. Children explore new role and gender relationships.
   2. A child may try to influence others by doing something kind for them but something that in the adult’s perception is transparent as being a bribe.
   3. A child may use materials to do a project, sometimes in a harmful way, without asking.

C. Compare the social and real-life problem-solving focus that Erikson’s stage 3 takes versus the original focus in Freud’s stage 3—the phallic stage with its attendant Oedipus complex.
   1. Erikson subscribed to the existence of an Oedipal conflict, but in his reworking of the stage, the desires, including the sexual desires of the child, involve attempts at mastery and development of self-confidence well beyond the sexual conflicts involving just the child and his parents.
   2. Essentially, the child’s identity now includes being a self-starter and dealing with desires that are separate from his parents and often tied to peer relationships, as well.

D. What can go awry at this stage? A child may be chastised for his drives and feelings or constantly criticized for acting independently and without permission. The child may be made to feel not only
ashamed and doubtful of his abilities but also guilty for what he wants and is feeling. Criticisms of the child often now enter the realm of morality. A child is not only incompetent but also bad.

V. Erikson called the fourth stage development of a sense of industry versus inferiority.

A. Although this stage was originally based on Freud’s latency stage, there is not much that is latent about it.
   1. By industry, Erikson meant that the child adds to her independence by attempting to master many skills and domains of knowledge. She is industrious.
   2. The stage coincides with a child’s entry into elementary school in which the focus is on mastery in academic domains. The child learns facts, learns to systematically classify her world, and learns academic skills of reading, writing, and math. In addition, the child learns the skills and rules of sports, the ability to make things, the ability to play a musical instrument, and so forth.
   3. Although mastery is a core of all of Erikson’s stages, mastery is surely the focus of this particular stage.
   4. At this stage, the child’s developing sense of identity includes not only what she can do but how she fits in and belongs: her membership in peer groups, in clubs, on teams.

B. Examples of this stage are:
   1. A child may become passionate or obsessed with learning about dinosaurs, cloud formations and how to predict the weather, the classification of insects or sea creatures, or ancient Egypt. The list goes on and on.
   2. In the social realm, a child may need to master the fears and homesickness of sleeping over at a friend’s house or going on a camping trip. The child may focus on heroes and world records and what he or she wants to do—be a scientist, be a dancer—and whom he or she likes.

C. For any true sense of mastery and competence to develop, one must actually achieve something, which means that there is also a chance of failure in all these tasks and attempts at mastery.
   1. When a child constantly experiences failure in her attempts, she may develop a sense of inferiority.
   2. In addition, social comparison abounds, in which children compare themselves to peers to determine how they are doing. Thus, children also become adept at realistically assessing their competence and incompetence without adults telling them how they are doing.
   3. Nevertheless, when adults, whether parents, teachers, or others, constantly belittle a child or criticize her accomplishments, she likely will develop a strong sense of inferiority.

D. There may be an adaptive reason for young children’s tendency to overestimate their competence. It allows them to try anything.

VI. After the initial foundation of trust is laid during infancy, the individual during childhood develops various facets of independence. In the next lecture, we will discuss the pivotal stage of independent identity development and the renewed development of connectedness.

Supplementary Reading:
Erikson, *Childhood and Society*, Part 3 (particularly chapter 7).
Coles, *The Erik Erikson Reader*.

Questions to Consider:
1. How much do you think Erikson’s stages were dependent on Freud’s original stages? Does this foundation decrease the validity of his stages? In your observations of children, does it seem like they go through the stages as Erikson described them?
2. Do you see childhood as divided into discrete stages, as Erikson described them, or does it seem that child development is really a combination of Erikson’s stages occurring all at the same time, rather than in discrete shifts?
Lecture Ten  
Identity and Intimacy

Scope: This lecture continues the discussion of Erikson’s theory by discussing the pivotal stages of adolescence and young adulthood. Stage 5 is a crisis of developing identity versus role confusion. The lecture discusses the “identity crisis” for which Erikson’s theory is famous. Stage 6 is a crisis of developing intimacy versus isolation. At this stage, new levels of connectedness can develop if an independent identity has been established in the previous stages. The lecture concludes with a discussion of the possible differences between women and men in their development of identity and intimacy and the issue of which stage really comes first.

Outline

I. We discussed Erikson’s stages of development through childhood. Those stages contributed significant insights and shifts in focus not seen in Freud’s original stages, but it was with the two stages of adolescence and young adulthood that Erikson revolutionized thinking about development by placing pivotal factors of development after childhood and at the dawn of adulthood.

   A. Just as the first stage laid a foundation for trust and connectedness on which autonomy and independence were then developed, so does Stage 5 lay a new foundation of independence on which a new level of connectedness and trust develop. The same issues are still with us throughout our lives and are met repeatedly but at different levels.

   B. The development of intimacy in Stage 6 is only the beginning of the development of ever more complex types of connectedness.

II. Erikson called the fifth stage development of a sense of identity versus role confusion.

   A. Erikson coined the term identity crisis to represent what people felt when they went through this stage of development. Of course, by now, the student should realize that for Erikson, all stages involve a crisis; nevertheless, the term identity crisis has caught on in our popular terminology. Indeed, the term mid-life crisis, which came along later, probably owed its creation to the fact that people now think in terms of recurring identity crises.

   B. How does this crisis come about?

      1. In part because of the physical and hormonal changes brought about by puberty, the young adolescent finds himself in a revolution within his own body. These changes lead to awkwardness, as well as the dawning of new desires and possibilities.

      2. These changes and accompanying confusions lead to disequilibrium in the person regarding his physical and social competence and his secure sense of self. Who he thought he was may not be who he is any longer.

      3. This confusion is exacerbated by the varying rates of development seen in his peers and the varying changes in interests and mastery levels seen in those around him. It is also exacerbated by the fact that most adolescents switch schools during this same time. Middle schools and high schools have different policies and focuses than the elementary schools that children are used to.

      4. Adolescents also begin to see that as they change into adults and are coming to the end of their school years, they will soon need to leave home and make major decisions about a college education and career paths.

      5. Thus, the person experiences a crisis of identity.

   C. This crisis motivates the person to attempt to find out who he really is (as Erikson said, “...to find out what you care to do and who you care to be”) and to reestablish himself on a new level.

      1. The person attempts to accomplish this by finding the common or consistent connections among the various skills, values, and roles in his life.

      2. For all of us, there are multiple facets and obligations in our lives. We each engage in various role relationships. Erikson thought an adolescent needed to find unity and consistency across the changes that occurred.
3. In reality, some have pointed out that a well-adjusted person recognizes the multiple roles and facets of his or her personality, rather than striving for unity and consistency in every situation. Indeed in some cultures (for example, in Korea), acting consistently in all roles and contexts would be considered immature.

D. We can see various ways in which adolescents typically attempt to develop integrated identities and decide who they are and what they want to do.

1. Often people try out various roles, friends, and lifestyles as if they are trying on clothes to see which fit best. Not surprisingly, adolescents are highly influenced by fads, opinions, and values of peers. They seem to change hairstyles, plans, and girlfriends or boyfriends on a weekly or monthly basis.

2. They judge who they are and how competent they are in large part by how others treat them. This assessment of self based on how others react is what Charles Cooley called the looking-glass self.

3. Adolescents also try out various ideologies and value systems. They may take up causes and become politically involved, and they may attempt to find causes and perspectives that vary from those of their parents. After all, they are striving for an independent identity.

4. Yet as they strive to be independent individuals, adolescents often show extreme conformity to their peer groups. At times, they become disgusted with their own phoniness and lack of consistency.

5. Their activities with others with whom they are in love are often egocentric projections of themselves onto others. Much time is spent in conversation about who they are and who likes them.

6. Adolescents become frustrated with “gray areas” as their ideologies clash with an imperfect world; sometimes, their search for values and ideologies leads them to vicious prejudice and intolerance for diversity.

E. According to Erikson, a healthy result of this stage occurs when the individual has gained insight into what remains the same about himself despite change, what he wants to take with him, what his strengths and weaknesses are, what his values and beliefs are, and what his preferences and desires are.

1. The person may or may not accept his former beliefs and those of his parents, but he has thought these through for himself.

2. Although most people stick with the same religious beliefs, political leanings, and values as their parents, they at least have gone through a period of questioning and deciding for themselves.

3. The person makes commitments to the future, including commitment to a career path.

F. What happens when this development goes awry?

1. According to Erikson, when one does not develop a satisfying sense of identity, he or she will suffer from role confusion. In a sense, the individual will continue in adulthood to live out the confusions and searching usually found in adolescence.

2. Erikson and others (in particular, James Marcia) discussed different courses that a person may take when he does not achieve a sense of identity.

3. He may develop role diffusion, in which nothing seems to matter and no commitments are made.

4. He may exhibit role foreclosure, in which others in his life (such as his parents or his religion) determine his career and life course (even his marriage) before he has had a chance to work out these decisions for himself.

5. He may enter a moratorium on making commitments and identity decisions. In other words, he may simply put off the period when the decisions are made. Indeed, this path seems to be ever more common as young people need a longer period of time to gain an education and make commitments to marriage and career.

III. Erikson called the sixth stage development of a sense of intimacy versus isolation.

A. In young adulthood, after a person has experimented with various options and pathways and has wrestled with role confusions, most people achieve a sense of identity and commitment to a life course. This secure identity is needed to meet the crisis of the current stage.

1. Just as in early childhood the individual needed a strong foundation of trust to attempt autonomous and independent behaviors on her own, now the person needs a strong foundation of a sense of self to reach out and commit herself to another person and abide by those commitments.

2. Intimacy entails placing one’s own future and happiness, at least in part, in the hands of another person. It entails disclosing and sharing so much of oneself that the other person knows one’s
weaknesses and could easily cause one great pain and harm. Of course, with intimacy, this opening up and sharing is reciprocal. You can hurt others and they can hurt you.

3. It takes a strong sense of who one is to allow oneself to become vulnerable to another person and voluntarily put part of one’s happiness and well-being in the hands of another. Otherwise, a person would not have the capacity to take this step.

4. As Erikson said, “...you learn whom you care to be with—at work and in private life.”

5. The prototype of this type of intimate commitment is marriage; however, this level of development applies also to forming lasting friendships and commitments to causes and purposes.

B. What happens when this level of development is not achieved?

1. Erikson argued that a person who had not achieved a healthy identity could not bring herself to make the commitment necessary to achieve intimacy. She could not bring herself to open up and stick with another person.

2. Such a person might come close to commitments but then shy away, often engaging in romantic relationships that do not last.

3. Although the person might have an active social life, Erikson believed that she would have a profound and underlying sense of isolation that would disrupt further development.

IV. For Erikson, identity must come first in order to achieve intimacy. However, others have questioned this ordering of the stages.

A. Nancy Chodorow, another psychodynamic theorist, in discussing the differences between women’s and men’s development, noted that for males, identification seems to come primarily through a separation from the mother (refer to Freud’s Oedipal conflict). Therefore, males develop a style in which intimacy is threatening. On the other hand, for females, identification seems to come primarily through attachment to the mother (again, refer to Freud’s Oedipal conflict). Therefore, they develop a style in which separation is threatening.

B. Supporting this line of reasoning is some anecdotal evidence that girls have a difficult time developing a sense of identity or a secure sense of self without having connections to others.

C. Chodorow’s and others’ reasoning is that males may follow Erikson’s sequence of identity, then intimacy. After all, Erikson was male and seemed to base some of his theory on his own experiences. However, females may follow a path of achieving intimacy first, then identity.

D. Some would see this order in females as brought about by biases in our society stressing marriage and family as the goals most appropriate for females and careers and job achievement as the goals most appropriate for males.

Supplementary Reading:
Erikson, Identity: Youth and Crisis.

Questions to Consider:

1. In line with Erikson’s theory, some have said, “If you don’t rebel against your parents as an adolescent, you will rebel later in life, probably against your spouse.” Others would argue, “If you rebel against your parents, it simply reflects your rebellious style, and you are more likely to rebel later in life.” From your experience, which do you think is usually true?

2. Erikson turns every stage of development into a crisis. If ever there was a period of emotional crisis, however, it would seem to be adolescence. Nevertheless, do you think the storm and stress and identity crises we so commonly associate with adolescence are actually prevalent in the lives of most adolescents?
Lecture Eleven
Erikson’s Later Stages—Adult Development

Scope: This lecture concludes the discussion of Erikson’s theory by first describing development in his last two stages, which occur during adulthood and old age. Stage 7 is a crisis of developing generativity versus stagnation, and stage 8 is a crisis of developing ego integrity versus despair. The last stage demonstrates the completion of the life cycle with connections to all the issues with which a person has already dealt. The lecture concludes with a discussion of whether Erikson’s sequence explains universal developmental processes or simply describes the life course typically found in the Western world.

Outline

I. As we have already noted, Erikson had a strong influence on changing the thinking about development by systematically describing developmental stages occurring in adulthood and old age. In these stages, as in his last two stages, he broke away from his earlier ties to Freud’s psychosexual stages.

II. Erikson called the seventh stage development of generativity versus stagnation.
   A. People who successfully resolved the crises of the last two stages would now be able to commit to intimate, long-term relationships and be able to choose a career path. What else would this accomplishment make possible for them?
      1. During adulthood, such a person would now be in a position to be responsible for other people, particularly for those of the next generation.
      2. For this reason, the main focus of this stage is called generativity. The main issue or task to master is whether one can make complex commitments to others to rear, nurture, and educate them. In other words, could one be a successful parent to children? In addition, could one generate results or products that would benefit society?
      3. Parenting is the prototype for this stage; however, being generative implies more than just taking care of one’s own children. A person can teach other children; take care of the laws and policies that affect others, particularly succeeding generations; protect the environment for the good of others; and so forth.
      4. Whether he or she has children or not, the generative person feels a commitment to others, particularly the next generation.
   B. The generative person feels responsible for his sector of the world and sees himself as a contributing member of society.
      1. A generative person in adulthood puts the welfare and upbringing of his children first.
      2. He coaches Little League, serves on the P.T.O., pays taxes to support the school system and clean town government, does volunteer work, supports what he considers to be worthwhile social institutions, and works hard to be successful in his career. Of course, the specific examples go on and on and vary from society to society.
   C. First, Erikson would claim that successful development during this stage is extremely difficult if a person has not already allowed himself to be part of an intimate relationship because this new commitment also requires that a person yet again voluntarily give up some of his independence to be connected and committed to other people. In a sense, a married couple also must give up some of their intimacy to commit to the primary welfare of the children.
   D. In Erikson’s view, to accomplish this, both one’s personal identity and one’s sense of intimacy with another person must be secure. As Erikson said, “...you learn to know what and whom you can take care of.”
   E. What occurs if a person does not develop this sense of, and commitment to, generativity?
      1. According to Erikson, without this commitment and focus, a person would live mainly for himself and for his own pleasures or for the pleasures of a couple without any regard for the greater good or for the next generation.
      2. The person would stagnate in his development, not becoming more mature or more connected than he was in adolescence or young adulthood. For Erikson, selfish living and stagnation are intertwined.
III. Erikson called the eighth and final stage development of a sense of *ego integrity versus despair*.

A. Brought on in large part because of the declines of old age and the loss of financial power and responsibilities, a person is again thrown into a crisis of change.
   1. At least in Western society, most people reach a point at which they are no longer active parents; they retire from their jobs and, thus, have less control or impact over the accomplishments and decisions made in their fields of work; and they lose some of the energy or physical and mental stamina needed to keep producing at the rate they did during most of their adulthood.
   2. Just as puberty threw them into disequilibrium, so can these changes in old age.
   3. In addition, near the end of one’s life, one must come to grips with the certainty of death and with the knowledge that one’s options and chances for various courses of action are virtually over. This is the life you had; there is no other.
   4. Thus, the tasks of this stage are to master and adjust to these changes in one’s opportunities and to develop a final identity for oneself that includes what one is like in old age.

B. Erikson called this stage *ego integrity* because the successful person will be able to integrate all aspects of her identity—all aspects that make her who she is (or that make up her fully developed ego)—and she will feel good about herself and what her life was.
   1. *Integrity* has two meanings here. The first is an integrated life—one that unifies all the previous identities. The second meaning is seen in the person who has integrity or honesty in accepting what she has been given in life and feeling that if she had it to do over again, she would basically live her life the way she had already lived it. She would be honest in accepting both the successes and failures and the good and the bad of her life.
   2. A person would feel that she had accomplished something and left something good for others because of her life.
   3. There is yet a third meaning of the term *integrity*. In this last stage, Erikson apparently believed that a person could finally fully integrate the two seemingly contradictory needs of her life—to be connected to others and to be independent. We can have it both ways, with each need reinforcing the other.
   4. Erikson believed that a person who achieved ego integrity and did not fear death would provide an even stronger sense of trust in life to those who were just starting out, thus completing the cycle.

C. We can point to some prototypical examples of older people who have achieved ego integrity.
   1. These are people whom we think of as having gained a high degree of wisdom, people we look up to as our wise elders, ever generative and helpful to the younger generations.
   2. These are people whom we think of as a grand old lady or a kindly gentleman or a fun-loving grandparent or a person with a great sense of humor.

D. What happens when development goes awry?
   1. Erikson thought that a sense of despair would set in for those who could not accept that their lives were coming to an end or who could not accept the choices and outcomes that had occurred in their lives.
   2. With this sense of despair might come depression, desperation to grasp as much as one could for oneself, or a complaining and bitter style of interacting with others.
   3. Most of us have encountered the kind and optimistic old person, as well as the grouchy and depressed old person.

IV. Now that we have completed the life cycle through Erikson’s theorized sequence, how valid do developmental theorists and researchers believe his stages are?

A. Many people believe that Erikson’s stages are valid descriptions of the sequence of issues and challenges that a person must face if the person is growing up in a Western culture, such as mainstream America. However, many question whether these stages are universal and apply to all cultures.
   1. After all, many of the crises Erikson describes are brought about in large part because of the sequence of events that a culture prescribes for us. The culture determines when we must learn certain skills, when we go to school, when we get married, when we must pay taxes and hold down jobs, and when we must retire.
   2. Much of the cross-cultural research that would be necessary to confirm the universality of these stages has not been done, even though Erikson was a strong advocate for cross-cultural research.
B. Much of Erikson’s description of the sequence is simply that: a description of what typically occurs in most people’s lives. What is lacking is a compelling explanation of the underlying processes that bring about these developmental changes.
   1. For this reason, Erikson’s theory has not generated a lot of developmental research that would assess the theory’s validity.
   2. Erikson’s theory functions best as a good description of the normal sequence of changes in one’s life and a metaphor for how one faces recycling issues and crises.

C. Nevertheless, Erikson’s theory has had a tremendous impact on the study of personality development, especially in adolescence and adulthood, and has provided a strong impetus to consider human development as a lifelong phenomenon.

D. One final accomplishment of Erikson’s theory is that he stressed the view that all the issues and crises were always present in one’s life, but the focus simply shifted (and sometimes returned again to a particular issue or problem). The implication is twofold.
   1. First, one’s development is never complete, and it does indeed take a lifetime to integrate all the challenges and issues.
   2. Second, one need never give up in despair because there are multiple chances to work through the challenges and issues. One’s life is not ruined because development was less than optimal at one particular period.

E. Some people may never experience ego integrity as Erikson describes it. Some writers, musicians, and older parents may continue to be generative into old age.

F. Erickson talked as if every person has the same motivation and goes through the same stages and crises. But what if there are individual differences, from biology, that mean some people aren’t as attuned to crises? This, in fact, seems to be the case.

G. We will see some of these ideas and issues resurfacing again in our next theory—attachment theory.

Supplementary Reading:
Erikson, *Dimensions of a New Identity*. (This insightful little book describes the issue of developing identity as it applied to the birth of the United States and to the life of Thomas Jefferson, in particular. The conclusion is particularly insightful as a beautiful summary of how Erikson integrated all the various stages of identity development.)

Questions to Consider:
1. If you are currently in Erikson’s stage 7 of generativity, does his description seem to be an accurate portrayal of the decisions, commitments, and pressures that you experience in your life? If you are currently in Erikson’s stage 8 of ego integrity, does his description seem to be an accurate portrayal of what is going on in your life?
2. With each theory that you encounter, you will have your own sense of whether it rings true for you. Does Erikson’s theory feel right to you? Are there any aspects that make you feel it is not valid or is missing important elements?)
Lecture Twelve
Bowlby and Ainsworth’s Attachment Theory

Scope: This lecture introduces attachment theory by first describing John Bowlby’s history, including his early psychoanalytic training and his concern with explaining how children react to the loss of a loved one and their need for protection. It then describes Mary Ainsworth’s history, including her work in Uganda; her concern with explaining how we can have connectedness and independence simultaneously; and her associations with, and influence on, Bowlby. The lecture discusses the importance of the concept of a secure base, for which the theory was famous. The lecture concludes with a discussion of the functions of an attachment system for the adaptation of the species.

Outline

I. A crucial factor for optimal child development is that an infant becomes connected to other people, especially to her parents.
   A. We have already seen that Freud and Erikson both addressed the issue of how parent-child relationships are formed. Erikson, in particular, described the development of trust as the foundation of all subsequent developmental accomplishments. However, these two theorists did not focus primarily on the formation of this early and important relationship.
   B. Two researchers, John Bowlby and Mary D. S. Ainsworth, developed a theory of parent-child attachment that focused entirely on the process of how and why this attachment develops in children and what happens when a healthy attachment does not develop.

II. John Bowlby is considered the primary founder of attachment theory, which has led to thousands of scientific studies and changes in important policies of child care, including how children are treated in hospitals and even changes in childbirth procedures.
   A. Bowlby was born in 1907 in England and died there in 1990.
      1. He was a physician and child psychiatrist who worked in the Freudian psychoanalytic tradition; however, he became dissatisfied with Freudian theory, especially as he tried to explain how attachments develop. He found psychodynamic theory inadequate in dealing with real relationships in a child’s life.
      2. Instead, Bowlby used the newly developed ethology theory to explain why we need a strong attachment system and how it develops. We will discuss ethology theory in the next lecture.
      3. He published his first paper laying out his theory of attachment in 1957.
      4. Bowlby was greatly influenced by the independent theoretical work of Ainsworth. It is now difficult to separate entirely which parts of attachment theory came from which theorist.
   B. After World War II, several child researchers and child therapists took a keen interest in the ravaging effects on children of being deprived of their parents.
      1. For example, another psychoanalyst, Rene Spitz, studied children (often in orphanages) who did not have consistent caregivers and, consequently, suffered from depression and a failure to thrive.
      2. Bowlby and his colleagues did research on children in hospitals who were separated from their parents and children who suffered the loss of their parents.
      3. They described how a child suffering from separation from a parent went through stages of detachment, similar to the adult mourning process. The stages were protest and anxiety, withdrawal and depression, and finally, detachment and lack of connections. This process explained chronic losses, as well as temporary losses (such as those leading to homesickness).
      4. All of this research pointed to the conclusion that strong parent-child attachment was not just important, but it was necessary to the survival and healthy development of children.
      5. These conclusions, coming from a research field independent of Erikson, were in agreement with Erikson’s view of the first stage of development. However, whereas Erikson merely described general development, Bowlby (and Ainsworth) laid out the specific mechanisms and processes that would bring about attachment, and they provided empirical evidence for how it developed.
C. From 1969 to 1980, Bowlby published a trilogy of books on attachment, separation, and loss. These books have become his most important publications on his theory and research.

III. Mary Ainsworth, first working independently of Bowlby, then in conjunction with him, influenced attachment theory to such an extent that she became a cofounder of the theory and some of its primary research methods.

A. Ainsworth was born in 1913 in Ohio and died in 1999 in Virginia.
   1. She did her undergraduate and graduate work at the University of Toronto and received her Ph.D. there in 1939.
   2. During World War II, she served in the Canadian Army and rose to the rank of major.
   3. In 1950, Ainsworth joined Bowlby for the first time, with an accompanying interchange of ideas and influences on each other’s theory. Throughout the rest of her life, she repeatedly reconnected with Bowlby in developing further theoretical ideas and sharing data.
   4. After the war, Ainsworth moved to Uganda, where she completed intensive studies of mother-child interactions and discovered three main patterns of attachment, which we will discuss later.
   5. In 1956, Ainsworth went to Johns Hopkins University in Baltimore and carried out an intensive investigation of mothers and children in that city. She used the classifications she had discovered in Uganda and found that they applied to American families, as well.
   6. In 1976, she moved to the University of Virginia and stayed there until her retirement. Her later work focused on attachments beyond infancy and into adulthood.

B. Ainsworth’s main ideas developed while working with her advisor in graduate school, William Blatz, who had developed a theory for the role of security in humans.
   1. Ainsworth used this theory to develop the idea of a secure base in infant attachments.
   2. Ainsworth argued that having a strong attachment provided the child not with a dependent and helpless relationship to the parent but a sense of security as a base. From this secure base, the child could then explore, take risks, and in fact, behave more independently, rather than being dependent and helpless.
   3. Once again, one can see a convergence of views from independent sources. The view of a secure base coincides with Erikson’s view of autonomy and initiative being made possible by a foundation of trust.
   4. Ainsworth argued that one can never be too securely attached because attachment continues to be adaptive throughout one’s life, while dependence does not. Dependence is not the same thing as attachment.

C. In 1978, Ainsworth, with some of her students, published an influential book, Patterns of Attachment, which lays out the most important points of her theory and research.

IV. In the joint theory of Bowlby and Ainsworth, humans have evolved a built-in attachment system that is necessary for the survival and adaptation of the species.

A. Humans have the longest period of immaturity of any species and the longest proportion of the life span spent in immaturity.
   1. This period of immaturity allows humans to learn and be influenced by the environment and culture and, thus, develop flexibility, rather than having everything “hard wired” into the nervous system or controlled by instincts.
   2. However, such a period of immaturity requires an equally long period of intense parenting and care to ensure that the immature offspring are protected.
   3. How does nature ensure that the adults of the species will care for the offspring and the offspring will stay with the parents? This connection is maintained through reciprocal attachment of the child to the parent and the parent to the child.
   4. Attachment can be defined as the strong preference of a person to be in close proximity to another specific person and to feel comfortable when close to the person and distressed when separated from the person.

B. What does this reciprocal attachment system accomplish for the child? What adaptive functions does it serve?
   1. First and most important, this reciprocal attachment guarantees that the basic needs of the child are met, that is, the needs for food, warmth, shelter, and protection from harm. In return, for the parent (or
parent substitute) meeting these needs of the child, some needs are met as well, such as those for physical contact, social stimulation, the need to nurture, and the need to feel needed.

2. Second, this attachment gives the child a sense of security and trust and quells the child’s fears.

3. Third, it facilitates exploration and independent functioning in the child.
   a. The two motivations of seeking security and exploring the world seem to be opposites of each other.
   b. The paradox of the system is that this may be the only way that the child can meet both of these needs. Development of a secure base gives the child the consistency by which she can take risks in exploring or trying out new behaviors.

4. Fourth, attachment to another person focuses the child’s attention on that person (through positive emotional arousal, eye contact, and proximity) so that the child is primed to learn from the attached person. For example, attached individuals become the best teachers for children.

5. Fifth, attachment provides a model and experience with relationships for the development of future relationships, such as friendships and love relationships. We will discuss this primary function later.

C. In the next lecture, we will discuss how nature ensures the formation of a secure attachment so that these needs can be met.

Supplementary Reading:
Bretherton, “The Origins of Attachment Theory: John Bowlby and Mary Ainsworth.” (This article in Developmental Psychology provides a clear history of the development of their joint ideas.)
Bowlby, Attachment and Loss, Vol. 1: Attachment, Parts 1 and 2.

Questions to Consider:
1. What do you see as the evolutionary advantage for a species of having a long period of immaturity or childhood? How is a parenting system tied to this evolutionary adaptation, and how is an attachment system tied to the parenting system? Do you see these connections in other species as well?

2. Besides the functions of attachment mentioned above, can you see any other functions that attachment may provide for the child or the parent?
## Timeline

**1600s–1700s**
In Europe and America, no interest in child study and a lack of concern for children; children are treated as miniature adults.

**1690**
John Locke publishes an important essay on human understanding; argues that children are born neutral.

**1762**
Jean-Jacques Rousseau publishes *Emile*; argues that children are born good and should not be corrupted by society.

**1787**
Tiedemann publishes the first baby biography.

**1856**
Sigmund Freud is born.

**1877**
Charles Darwin publishes his child observations.

**1882**
Preyer publishes the first textbook on child development.

**1896**
Jean Piaget and Lev Vygotsky are born.

**1902**
Erik Erikson is born.

**1907**
John Bowlby is born.

**1913**
Mary Ainsworth is born.

**1920s**
John Watson becomes “the father of behaviorism.”

**1925**
Albert Bandura is born.

**1934**
Vygotsky dies.

**1939**
Freud dies.

**1920s–1940s**
Arnold Gesell writes about his maturational stage theory; Freud’s theory competes with behaviorism for dominance in child development; ethologists (Tinbergen, von Frisch, and Lorenz) do comparative animal research in Europe.

**1950s–1960s**
Behaviorism and learning theory dominate in child development.

**1956**
Ainsworth begins studies with the strange situation.

**1959**
Robert White publishes his theory of mastery motivation.

**1960s**
Bandura publishes his first studies on imitation and aggression.

**1963**
Erikson publishes *Childhood and Society*, laying out his eight stages.

**1969**
Bowlby publishes the first book of his trilogy on attachment theory.

**1970s**
Vygotsky’s writings are first published in English.

**1970s–1980s**
Piaget’s theory dominates child development.

**1980**
Piaget dies.

**1980s**
Bandura develops his self-efficacy theory.

**1990**
Bowlby dies.

**1990s**
Vygotsky’s influence on development in context and on education becomes prevalent; Robert Siegler does research on developing cognitive strategies.

**1999**
Ainsworth dies.
Glossary

**Accommodation**: The process of adjusting or modifying one’s scheme to fit an object or situation in the environment.

**Assimilation**: The process of applying one’s scheme to an object or situation in the environment so that the object is incorporated into the scheme.

**Behaviorism**: A theoretical approach associated with learning theory in which overt behavior is the object of study. Covert cognitive processes are not considered a part of psychological study. Rather, the conditions that lead from stimulus to response are the focus.

**Co-construction**: Two people (usually a child and an adult) together solve a problem or perform a task (usually with the adult scaffolding the child).

**Cognition**: The mental processes of thinking, which include representation, imagination, and problem solving.

**Conservation**: The ability to understand what qualities (and quantities) of a thing remain the same (or are conserved) amid changes in other qualities.

**Defense mechanisms**: Freud’s term for processes that the person unconsciously uses to control the conflict among basic primary drives, the demands of the superego, and the demands of reality. Though they are often maladaptive, these defenses protect the self from being conscious of all the conflicts and pressures.

**Ego**: Freud’s term for the realistic, conscious, rational, problem-solving functions of the individual that develop out of the id to deal with reality.

**Egocentric speech**: Talking to oneself, often to guide oneself, rather than to communicate with others.

**Equilibration**: Piaget’s term for the process of bringing assimilation and accommodation into an equilibrium.

**Ethology**: The study of animal behavior for the purpose of learning about complex, instinctual, and adaptive processes. The theory was begun by Konrad Lorenz and others.

**Fixation**: In Freud’s theory, some libidinal energy is fixed on the pleasures and focus of a particular stage of development. Thus, one retains some behaviors and desires associated with that focus (e.g., oral fixations).

**Human development**: The sequence of steps and the processes that bring about change and reorganization in humans from conception through the entire life cycle.

**Id**: Freud’s term for the unconscious, irrational, amoral, basic animal functions and needs of the individual.

**Identity crisis**: Erikson’s concept of the emotional turmoil one goes through in trying to understand and resolve conflicts and confusions of who one is and what one can commit to. This term more specifically applies to Erikson’s fifth stage, which occurs during adolescence.

**Innate releasing mechanism**: In ethology theory, an automatic behavior or characteristic that instinctually acts as a cue to other individuals to feel a certain way and respond a certain way. For example, babyish features act as innate releasing mechanisms to elicit feelings and responses of nurturance and the desire to be close to the individual with the features.

**Internal working model**: Bowlby’s term for an internal representation that a person develops for an attached person and the relationship with that person. An individual uses this representation for comfort and to guide behavior in subsequent relationships.

**Learning theory**: A theoretical approach associated with behaviorism in which the focus is on the study of how individuals learn habits and contingencies between means and ends. Learning theory generally deals with the principles of reinforcement that lead to effective conditioning of behavioral responses.

**Libido**: Freud’s term for the psychic (psychological) energy he believed powered all the cognitive and emotional processes. It was generally channeled through two instinctual drives: Eros, which motivates one to seek sex, pleasure, and survival, and Thanatos, which motivates one to seek death, aggression, and competition.
**Mechanistic worldview**: An approach to human development in which a machine is the model for humans. Humans are seen as passive responders to the world.

**Observational learning**: Learning by observing a model’s actions, then encoding the behavior and imitating the model.

**Oedipus complex**: Freud’s theoretical construct of a conflict involving the child’s desire for the exclusive affection of the opposite-sex parent and the ensuing (imaginary) competition with the same-sex parent. Its resolution comes through identification with the same-sex parent.

**Operation**: Piaget’s concept for a mental transformation that a person performs on something, which can be reversed.

**Organismic worldview**: An approach to human development in which a complete organism is the model for humans. Humans are seen as active initiators of action and change.

**Primary process thinking**: Freud’s term for the most primitive level of thinking, associated with the basic needs of the id.

**Reciprocal determinism**: The circular effect of the environment’s determining one’s behavior and the person effecting a change in the environment.

**Reinforcement**: A term from learning theory for a result of some behavior that is rewarding and causes the frequency of the behavior to increase in the future.

**Scaffolding**: The process of someone “propping up” or aiding an individual to help him or her understand something or perform a task.

**Scheme**: Piaget’s term for a pattern of knowing something.

**Scientific theory**: A systematic explanation that unifies various observed phenomena and facts. A theory often consists of metaphors, models, or formulas.

**Secondary process thinking**: Freud’s term for rational, problem-solving cognitive processes that develop along with the ego.

**Self-efficacy**: The belief that one can cause some specific effects on one’s environment.

**Strange situation**: A widely used research paradigm developed by Ainsworth to assess the type of attachment relationship that exists between a child and parent. Its name derives from the strange situations in which children are placed to observe their responses.

**Superego**: Freud’s term for the conscience and the ideals that are internalized from society. The superego is often irrational.

**Symbol**: A thing or mental action that stands for something else (the referent).

**Vicarious reinforcement**: The expectancy one develops that he will be reinforced for behaving the same way that a model did who was reinforced for her behavior.

**Zone of proximal development**: Vygotsky’s term for the range of tasks and challenges that a person is currently trying to master. This range is the area of the child’s current development.
Biographical Notes

Ainsworth, Mary (born, 1913 in Ohio; died, 1999 in Virginia). Ainsworth received her Ph.D. in 1939 from the University of Toronto; she was a major in the Canadian Army in World War II; she studied mother-child relationships in Uganda, then developed and tested the **strange situation task** in Baltimore; she was then a professor at the University of Virginia. With John Bowlby, she developed attachment theory.

Bandura, Albert (born, 1925 in Canada). Bandura received his Ph.D. in 1952 from the University of Iowa; he then became a professor at Stanford University, where he is today. He developed social learning theory and self-efficacy theory.

Bowlby, John (born, 1907 in England; died, 1990 in England). Bowlby was trained as a physician in child psychiatry and Freudian psychoanalysis; after World War II, he directed the Tavistock Clinic and did research in children’s hospitals. With Mary Ainsworth, he developed attachment theory.

Erikson, Erik (born, 1902 in Germany; died, 1994 in Massachusetts). Erikson’s parents were Danish, but he was raised as a German Jew; he received only a high school diploma; he wandered around Europe and tried out various jobs; and studied psychoanalysis with Anna Freud in Austria. He came to the United States in 1933; he was the first child psychoanalyst in Boston; at various times, he was at Harvard University, Yale University, and the University of California at Berkeley. He developed the psycho-social theory of development, the first theory to describe adult development.

Freud, Sigmund (born, 1856 in Moravia; died, 1939 in England). Freud lived most of his life in Vienna; he received his M.D. in 1881; he initiated the practice of psychoanalysis in Vienna; he was a refugee of Nazism and immigrated to England. He developed the psychodynamic theory.

Piaget, Jean (born, 1896 in Switzerland; died, 1980 in Switzerland). Piaget studied biology and philosophy and published his first paper at age ten; he received his Ph.D. in 1917 from the University of Neuchatel; he worked on intelligence tests in Paris; in 1921, he became director of the Jean-Jacques Rousseau Institute at the University of Geneva. He developed the cognitive-developmental theory.

Vygotsky, Lev (born, 1896 near Minsk; died [of tuberculosis], 1934 in Russia). Vygotsky graduated from Moscow University in 1917; his first publications were on the psychology of art; he worked most of his life in Moscow; most of his work consisted of posthumous publications. He developed the cognitive-mediation theory.
Theories of Human Development
Part II
Professor Malcolm W. Watson
Malcolm W. Watson, Ph.D.
Professor of Psychology, Brandeis University

Malcolm W. Watson received his B.A. in Psychology from the University of Utah in 1967. After living in Berlin, Germany, then serving in the Medical Service Corps of the Army in Vietnam, he pursued his graduate education in Developmental Psychology at the University of Denver. He received his Ph.D. in 1977.

Dr. Watson has been on the faculty at Brandeis University in Waltham, Massachusetts, since receiving his Ph.D. He has been Chair of the Psychology Department and is currently a Professor of Psychology and Chair of the Social Science School Council at Brandeis. He has also taught at Boston College and been a member of the John D. and Catherine T. MacArthur Foundation Network for the study of transitions in early child development.

Dr. Watson received the first Michael Laban Walzer Award for Excellence in Teaching at Brandeis. He has taught courses on research methods, developmental psychology, theories of development, and the development of play, art, and creativity. His research has been in four areas: the development of symbolic play in children, the development of drawing and art in children, children’s understanding of family roles and conflicts, and the causes of aggression and violence in children and adolescents. He has published numerous articles in journals and books and has edited several books. Dr. Watson’s research has been funded by the National Institute of Mental Health and the National Institute of Child Health and Human Development.
# Table of Contents

## Theories of Human Development

### Part II

**Professor Biography** .............................................................................................................................................. i  
**Course Scope** ...................................................................................................................................................... 1  
**Lecture Thirteen** How Nature Ensures That Attachment Will Occur ................................................................. 2  
**Lecture Fourteen** Development of Secure and Insecure Attachments .............................................................. 5  
**Lecture Fifteen** Early Attachments and Adult Relationships .......................................................... 8  
**Lecture Sixteen** Bandura’s Social Learning Theory .............................................................. 11  
**Lecture Seventeen** Bandura’s Self-Efficacy Theory .............................................................. 15  
**Lecture Eighteen** Piaget’s Cognitive-Developmental Theory .............................................. 18  
**Lecture Nineteen** Piaget’s Early Stages ................................................................................. 22  
**Lecture Twenty** Concrete Operations ................................................................................. 26  
**Lecture Twenty-One** Piaget’s Last Stage ............................................................................. 30  
**Lecture Twenty-Two** Vygotsky’s Cognitive-Mediation Theory ........................................... 34  
**Lecture Twenty-Three** Vygotsky’s Zone of Proximal Development ..................................... 37  
**Lecture Twenty-Four** Conclusions—Our Nature and Development .................................. 41  
**Bibliography** ....................................................................................................................................................... 45
Theories of Human Development

Scope:
This twenty-four-lecture course provides an introduction to six highly influential theories of human development and the theorists who developed each theory. It is difficult to comprehend human nature without understanding our origins and the processes that guide our development from conception to maturity. Thus, the study of human development is a valuable tool, not only for understanding children and helping them to develop optimally but also for understanding ourselves as adults. The key to gaining insights into the phenomena of human development is to organize facts and data into coherent, scientific theories. Without such theories, scientists, including developmental psychologists and other students of human development, would make little progress in devising meaningful studies that further our understanding or in applying what we know in a way to benefit others. These lectures compare the historical and philosophical backgrounds from which each theorist emerged and the domains of development that each theory can explain. By examining the important points of each of the theories, the lectures help the student to compare them and see how they differ, where they converge, and how they complement one another to explain universal patterns of human development, individual differences, and abnormal development. Real-life examples and findings of major scientific studies are used to clarify the main points of the theories. In the end, the student will be prepared to judge which theories are valid and how each theory is valuable in giving us understanding of children and developmental processes.

The first lecture provides an introductory background for the study of the six theories and discusses the value of scientific theories generally. Lecture Two begins a discussion of the history that set the stage for the systematic study of child development. It covers the early history of conceptions of children before any scientific study of them existed. Lecture Three compares two major worldviews of human nature and development, as seen in the thinking of two influential philosophers, Locke and Rousseau. Lecture Four concludes the history of child study and the ways in which the major theories emerged.

The subsequent lectures discuss each of the six theories in turn. Lectures Five through Seven discuss Freud’s psychodynamic theory as it applies to child development, particularly to personality development. These lectures provide insight into the roles of the unconscious, competing drives, and the ways in which a person develops the ability to adapt to various demands from within and from the environment. Lectures Eight through Eleven discuss Erikson’s psycho-social theory and how it developed from Freud’s influence to become the first theory to describe development across the entire life span. Lectures Twelve through Fifteen discuss the theory of infant attachment, as developed jointly by Bowlby and Ainsworth, and how this theory explains both early attachments and the development of close relationships throughout the life span. Lectures Sixteen and Seventeen discuss Bandura’s social learning theory and his related self-efficacy theory and provide examples of how his theory explains the crucial role of imitation in our learning and socialization. Lectures Eighteen through Twenty-One describe the most influential theory of development that has yet emerged, Piaget’s cognitive-developmental theory. The universal processes of development and the stages that Piaget theorized are explained. Lectures Twenty-Two and Twenty-Three describe the last major theory, Vygotsky’s cognitive-mediation theory. Vygotsky’s theory has emerged as a prominent one today, especially in influencing educational practices. The integrated cognitive and social focus of the theory is described. Lecture Twenty-Four provides a conclusion to the course by discussing how the various theories may be compared and integrated.
Lecture Thirteen
How Nature Ensures That Attachment Will Occur

Scope: This lecture describes how Bowlby was influenced by the ethologists. Ethology theory contributed the concept of innate releasing mechanisms, which are a central part of attachment theory in explaining how parents and infants become attached to each other. The lecture then discusses the allure of babyish features and their role in attachment and concludes with a description of the development of attachment in the first year of life.

Outline

I. When John Bowlby rejected Freudian psychodynamic theory as inadequate to explain how attachment develops, he turned instead to ethology theory.
   A. Ethology theory first emerged in the mid-twentieth century from the work of three European naturalists: Karl von Frisch, Nikko Tinbergen, and Konrad Lorenz.
      1. Ethology theory is a general approach to studying animal behavior and development in which the focus is on how behaviors that have adaptive importance and evolutionary significance have evolved in a given species.
      2. The ethologists carried out detailed, systematic observations of different species to describe how certain complex behaviors worked to bring about this adaptation, and they tried to explain why certain behaviors would have evolutionary significance.
      3. Certain complex action patterns or instincts would accomplish this adaptation at certain critical periods in an individual’s life. A critical period is defined as a time in the course of development (for a given species) when the individual is particularly sensitive to certain environmental cues and primed to respond to them. Outside this critical period, an individual may not respond the same way. Thus, certain skills or reorganizations of the neural system are likely to occur during critical periods.
   B. A prime example of a complex action pattern and a critical period can be seen in the construct of imprinting, which was first explained by Lorenz.
      1. In imprinting, a newborn animal responds to the movements of another object in proximity to it and forms neurological connections or patterns that then keep the newborn wanting proximity to the object. The individual will follow and seek the proximity of that object. If too much time passes, the critical period passes, and the imprinting will no longer occur to a moving object.
      2. Imprinting in birds occurs when a bird, such as a duck, hatches and imprints on the first moving object of a certain size. This is usually the bird’s mother. In ducks, the ducklings are now permanently bonded to the mother and follow her around.
      3. Imprinting was thought to occur in any species where the need for parenting was great, such as in birds and mammals. This system had evolved to ensure that the parent-child relationship would emerge and continue.
   C. Ethologists believed there were cues of color, patterns, or actions that were built into the species that signaled to others in the species to respond in a certain way. These signaling patterns were called innate releasing mechanisms.
      1. One example would be the movement of the mother duck as a releasing mechanism for the ducklings to follow the mother. Another example would be the red spot on the beak of a seagull as a releasing mechanism for the baby gull to peck at the parent’s beak, which in turn, was a releasing mechanism for the parent gull to open her beak and let the baby gull eat the food she had collected.
      2. In primates, there are several signaling or releasing mechanisms in one member of a species that elicit specific responses from another of the species.

II. As Bowlby theorized, there are also innate releasing mechanisms in humans that elicit attachment patterns quite similar to the imprinting of some lower species.
   A. What are some of the primary releasing mechanisms in an adult (e.g., the mother) that elicit proximity seeking and attachment formation in babies?
1. Babies respond to the soft, warm feel of skin and cloth. They cling and grasp automatically when they come in contact with hair, skin, or soft cloth, and they are comforted by this physical contact.
2. Babies respond to faces, especially to eyes, and like looking at them. Particularly after about eight weeks after birth, babies like making eye contact.
3. Babies respond to smiling, which after about eight weeks after birth elicits an automatic smile from the baby.
4. Babies respond to and prefer the sound range of the human voice, particularly female voices, and seem to be calmed by voices.

B. Reciprocally, what are some of the primary releasing mechanisms in a baby that elicit proximity seeking and attachment formation in adults (e.g., the mother)? Some of the same releasing mechanisms work both ways.
1. Adults respond to the soft feel of babies. In particular, adults like the feel of a baby who clings and grasps them.
2. Adults like looking at the eyes of another person and particularly like making eye contact with a baby.
3. Just as babies do, adults automatically respond with a smile when someone smiles at them, particularly a baby. They find watching a baby smile or laugh to be extremely pleasurable and rewarding. Smiling in humans seems to convey a universal message regardless of culture. The message is: I like what is happening; keep it up.
4. Although adults like the sound of a baby, they find a baby’s cry extremely distressing. It is a negative releasing mechanism that is nearly impossible to ignore. Like smiling, crying in humans seems to convey a universal message regardless of culture. The message is: I don’t like what is happening; change things.

III. Lorenz argued that one particular set of innate releasing mechanisms elicits nurturing behavior in fellow members of a species. He called these releasing mechanisms features of babyishness.

A. What are these babyish features in humans?
1. Babies typically have extra large heads in proportion to the total body size and extra large eyes in proportion to the head.
2. Babies have a large forehead in proportion to the head.
3. Babies have soft, fatty, rounded, and non-angular features. For example, they have a rounded chin; a small, rounded nose; large, puffy cheeks with no visible cheekbones; and soft, dimpled hands, fingers, and limb joints.

B. Similar babyish features are also found in several other species, such as rounded, non-angular muzzles and faces; large eyes; and fat, round bodies in puppies. However, these common babyish features appear only in species that have a period of immaturity and complex parenting behaviors. For example, lizards, which have no parenting period, are born looking like miniature adults with no babyish features.

C. Whenever one human perceives babyish features in another, that person automatically feels a release of feelings of nurturance toward the babyish individual.
1. According to an ethological approach, in response to releasing mechanisms that signal that someone is immature and unable to take care of himself, we have evolved this nurturing reaction. This adaptive response ensures that nurturance and protection will occur.
2. We can’t help ourselves; we want to cuddle and nurture and protect the person with the babyish features. This occurs in children responding to a baby, in adolescents, in childless adults, and in parents.
3. This automatic response even occurs across species. We respond with nurturance and attraction to puppies, kittens, baby gorillas, and ducklings. There is some evidence that individuals in other species reciprocally respond with nurturance to the babyish features in human babies and children.

D. The result of this reciprocal eliciting system is so strong that adults even respond with nurturance and protection to other adults with babyish features.
1. Leslie Zebrowitz has carried out many studies to show that we see adults with baby faces as being more immature, kind, innocent, and in need of help but less competent and responsible for their actions than mature-faced individuals.
2. These perceptions and biases that we have are independent of attractiveness in others, and they influence who we choose for certain positions and responsibilities, how we choose jurors, how we decide guilt or innocence in court cases, and how we choose partners for various activities.

IV. What is the normal course of development of these early attachments?

A. Some significant changes in the first few months seem to coincide with the onset of the signaling behaviors called releasing mechanisms that we discussed above. These changes show the reciprocal nature of the attachment process. The parent is becoming attached to the baby at the same time that the baby is becoming attached to the parent.

1. In the first three weeks after a full-term birth, the baby emits some releasing behaviors, such as grasping, clinging, cuddling, and crying; nevertheless, mothers usually report feeling exhausted and frustrated with their parenting.

2. From about four to six weeks after birth, the baby’s routine stabilizes, and the confidence of the mother increases.

3. At about seven to eight weeks, major portions of the baby’s cortex are first able to fire (that is, to function), and with these brain changes come behavioral changes that affect the attachment process. This period is often called the \textit{seven-week shift}.

4. The baby now begins visually to track a person’s face and make clear eye contact. In addition, the baby begins to smile in response to what another person does. Not surprisingly, at this time, the mother often says, “My baby is now a real person,” “My baby knows me,” or “He is now a lot of fun.”

5. At about three to four months, turn taking in talking and listening and in playing simple games (such as peek-a-boo) emerges. At this time, the mother often reports that she needs the baby and cannot live without him.

6. By about five to six months, it is clear that the baby has specific preferences to only a few other people and shows signs of specific attachments.

7. Between seven and twelve months, two significant behaviors appear in the baby. First, most babies begin to show \textit{separation fear}. When the person to whom the baby is attached is not present, the baby shows distress, often crying or cowering and looking for the attached person.

8. Second, most babies also show \textit{stranger fear}. When a stranger comes near the baby, the baby freezes, watches the stranger carefully, clings to the parent or hides behind the parent, and often cries.

9. These two behaviors demonstrate extreme discrimination and preferences for a specific attached person.

10. Mothers will often admit that they secretly like this behavior in their children because it demonstrates that the children prefer her over anyone else.

B. As children develop secure attachments, they acquire the sense of a secure base, which we discussed last lecture, and they are able to explore their environments and make contact with other people. Thus, securely attached children gradually branch out to form additional relationships and to become attached to other people, as well.

Supplementary Reading:


Questions to Consider:

1. Why do you think it is important for the survival and adaptation of our species to have not only infants who are predisposed to becoming attached to their parents but also parents who are predisposed to becoming attached to their infants? What are some of the factors that may disrupt this normal system from occurring?

2. Do you think there is anything biological or “built in” to make the mother a more likely attachment figure for the baby than the father or some other person who is close to the baby?
Lecture Fourteen
Development of Secure and Insecure Attachments

Scope: This lecture describes the normal development of a secure attachment and Ainsworth’s *strange situation task*, which has become the most popular assessment for secure attachment. It then discusses insecure attachments and how they predict several psychopathological problems in development. The lecture also looks at two major causes of insecure attachments, bad parenting and the child’s innate temperament, and concludes with a way these two causes may be complementary.

Outline

I. As we discussed in the last lecture, humans are predisposed to form strong parent-infant attachments. According to Mary Ainsworth, secure attachments versus insecure attachments are made when parents are consistent in their interactions with their children.
   A. Schaffer and Emerson, for example, showed that babies develop strong attachments with the people in their lives who are the most emotionally and socially interactive with them.
      1. A child forms a strong attachment to a person who talks to her, hugs her, plays with her, and laughs with her.
      2. The person who meets the child’s basic needs by feeding her and changing her is not necessarily the person to whom the child becomes attached.
   B. Several researchers (including Condon and Sander, Stern, and Kaye) showed that almost at birth, infants begin coordinating their movement to the sounds and sights associated with humans and quickly learn to take turns with their parents.
      1. The infant moves, then pauses and waits for the parent to respond. After the parent responds, she pauses and waits for the infant to respond again.
      2. This turn-taking develops into consistent parent-child interactions.
      3. This type of give-and-take interaction seems to be a part of the development of secure attachments.

II. To assess the type of attachment that had formed between a parent and child, Ainsworth developed a technique she called the *strange situation task*.
   A. This task consists of a series of events for the infant and parent, usually the mother.
      1. The infant is first placed in a room with the mother alone. In one phase, the mother leaves the infant alone. In another phase, the mother returns. In another, a stranger enters. In another, the mother and stranger are both present with the infant.
      2. The task presents several chances to observe the baby’s reactions to separation from the mother, to a stranger, and to reunions with the mother.
      3. Certain patterns of distress shown by infants on separation from their mothers and on encountering strangers were observed. Most important, certain patterns of reactions of the infant to reunion with the mother were also observed.
   B. Based on extensive research, Ainsworth classified the patterns found during the strange situation task into three main types of infant attachment.
      1. Type A is called *avoidant attachment*. In effect, the baby seems to ignore the mother, to show minimal distress when she leaves, and avoid her upon reunion. The baby seems to be detached from the mother.
      2. Type B is called *secure attachment*. The baby shows distress when the mother leaves and seeks her proximity, affection, and contact when she returns. The baby shares feelings easily and is easily comforted by the mother. Most children show this type.
      3. Type C is called *anxious-ambivalent attachment or resistant attachment*. Babies seem to be ambivalent and inconsistent in their distress and reunion responses. Upon reunion with the mother, the baby often moves toward the mother, then away from her; the baby sometimes acts as if he or she is attempting to punish the mother.
C. Ainsworth and many other researchers (including Main, Vandell, and Easterbrooks) have found that the classifications on this strange situation task do indeed predict the types of attachment that a child develops and subsequent outcomes from these attachments.

1. Children with secure attachments form more secure and normal peer friendships during the preschool years.
2. Children who show the insecure types of attachment are more likely to have behavior problems as children and in school. This is especially true of those who have a resistant or ambivalent attachment type.
3. Children with an avoidant attachment type are more likely to show problems with depression and mood disorders.

III. Ainsworth stressed that almost all children form some type of attachment as infants. The problems come when they form insecure attachments rather than secure attachments; insecure attachments are primarily the result of inconsistent parent-child interactions.

A. Some researchers (such as Brazelton and Tronick) have shown how mothers who don’t respond to their infants (“stone-faced” mothers) create infants who attempt to avoid the mothers.

B. Pre-term infants are more at risk for developing insecure attachment styles and having parents who abuse them.

1. Because these pre-term infants are delayed in development, they often do not show some of the releasing mechanisms, such as smiling and making eye contact, until later ages. They also are less predictable and stable in their responses and routines.
2. As a result of early hospitalization of these infants, parents are sometimes separated from them for longer periods of time.
3. Therefore, parents have a more difficult time forming normal attachments to pre-term infants, and insecure attachments can ensue.
4. Because of the research done in this area, hospitals and pediatric care specialists are now able to help parents of pre-term infants adjust to these differences.
5. For example, Tiffany Field showed that extra handling of pre-term infants increased the speed with which they caught up in body weight and in neurological development.

IV. Others have questioned whether the quality and consistency of parenting is the main cause of the development of insecure attachments, as Ainsworth argued. Might not the problem be caused by some characteristics of the child? One cannot blame the problems entirely on the parent.

A. The infant’s innate temperament may have a lot to do with the type of attachment that is formed.

1. Jerome Kagan has found that some babies are born with an extremely inhibited temperamental style of dealing with the world.
2. These inhibited infants are extra sensitive to stimulation, especially new aspects of their environment.
3. They respond with wariness, caution, and an inhibition of behavior, which shows up in their emotions and physiology, as well.
4. Hill Goldsmith and others found that highly inhibited children are more likely to develop type C attachments—anxious-ambivalent or resistant—which would go right along with their temperaments. For example, these children show more separation distress and stranger fear than most other children. They have a difficult time with changes in their environments.
5. Children who are extremely uninhibited (at the other extreme in terms of temperamental style) are more likely to develop a type A attachment, one of being avoidant.
6. Nevertheless, temperamental style alone does not predict problem behaviors the way attachment style does.

B. Most researchers agree that the development of secure or insecure attachment styles is important for healthy development. Most of them also believe that the development of a particular attachment style depends on a combination of factors from the child’s temperament and the way the parents respond to the child.

Supplementary Reading:
Ainsworth, Blehar, Waters, and Wall, Patterns of Attachment.
Questions to Consider:

1. In your experience with children (both your own and others), how do you think their individual attributes and temperamental styles interact with the ways their parents treat them to determine the characteristics and styles they develop? How does their nature and predisposition affect the way people treat them and vice versa?

2. What do you see as the major problems that may occur in a child’s life if she has not formed an early secure attachment with a parent or parent substitute? Do you see examples of problems occurring when secure attachments are not in place?
Lecture Fifteen

Early Attachments and Adult Relationships

Scope: This lecture concludes the discussion of attachment theory by discussing the long-term relations between early attachment and later relationships. The lecture first describes Bowlby’s concept of an internal working model of the child’s attachment and its functions in providing constant security. The internal working model also influences all subsequent attachments. The lecture describes an example of this relation found in Everett Waters’s study of the continuity between infant attachments and adult attachments. The lecture concludes with a discussion of how early attachments also influence adult romantic relationships and styles, as shown in studies by Shaver and Hazan.

Outline

I. In the last lecture, we discussed the influence of secure and insecure attachments on a child’s development. Parent-infant attachments influence subsequent peer relationships, but they also have an influence on relationships in adulthood. Recall that one of the major functions of early attachments is thought to be its influence on the formation of future relationships. In other words, a healthy parent-infant attachment may make subsequent healthy relationships possible.

II. As part of Bowlby’s theory of attachment formation, he proposed that during the first two years of life, children develop an internal working model of each of their primary attachment relationships.

A. Why is this construct called an internal working model?
   1. It is internal because it is a mental representation of the person to whom the child is attached, including his or her behaviors and the actions and emotions involved in the relationship between the attachment figure and the child himself.
   2. It is a model in that it is a prototype or copy of the person and relationship to which the child can refer or think about.
   3. It is considered a working model for two reasons. It is constantly changing or under revision (as in “a work in progress”), and it is constantly being used to recall and think about the attached person. The person works with his model.

B. Internal working models are thought to develop when the child is separated from the attached person.
   1. When the attached person is not present, the child’s secure base is also unavailable; therefore, the child feels insecure.
   2. It helps to have some reminder of the attached person available to function much like a security blanket. We all find it comforting at times to carry an object related to our attached person or a picture of the person (perhaps even a “piece” of the person, such as a lock of hair or piece of clothing).
   3. As children develop the ability to use symbols and represent absent objects, they become more adept at creating their own internal “security blankets,” so to speak. They develop a model or representation of the person to carry around with them at all times and use when the person is absent to provide the secure base. They do not need an external object.

C. This internal working model provides more than a secure base, however. It is also a model for subsequent relationships.
   1. When a child encounters a new person and begins to form a relationship with that person, she needs something to guide her as to how she should respond and interact.
   2. By turning to her internal working model, she already has the model she needs.
   3. The working model is dynamic and changeable. The experiences of subsequent relationships can modify the representation one carries around of the attachment relationship.

D. Freud proposed that transference occurs when a person transfers representations and emotions related to one person (such as one’s mother or father) onto a new person (such as one’s therapist or spouse).
   1. Freud’s concept of transference is related to Bowlby’s internal working model.
   2. In a sense, the child transfers her experiences with the original attachment figure to the new person simply to figure out how to deal with the new relationship.
3. Thus, it is not surprising that experiences we have had in previous relationships guide how we respond in new relationships.

4. The important point made here from attachment theory is that our earliest close relationships start off the transference process and provide the foundation for our internal models.

E. The influence of the internal working model extends beyond childhood. Adults also use their representations of their parent-child relationships as models to guide the ways in which they interact with their own children when they become parents. Thus, they repeat some of the same patterns of parenting that they experienced as children.

F. People may also use their representations of their parents’ relationship to each other as the model to guide the ways in which they will now interact with their own spouses or intimate partners. Thus, they repeat some of the same patterns of interacting in intimate relationships that they witnessed in their parents’ interactions with each other.

III. Recent research provides evidence for the relation of the earliest attachments to subsequent attachments.

A. Everett Waters (who was a student of Ainsworth) and others were able to re-interview people in their twenties who had been tested in Ainsworth’s strange situation task when they were babies to determine the stability of their attachment styles.

1. From infancy to young adulthood, 72% of the people continued to have the same secure or insecure attachment styles with their own children and spouses that they had shown in their attachments to their parents as babies; 64% stayed in the same exact category of attachment style with their own children and partners that they had had with their parents.

2. However, early attachment style does not automatically control what one will experience for the rest of one’s life. In the study, stressful life events often changed one’s attachment style.

3. If a person had an insecure attachment style with his own parents, he was more likely to show more jealousy and controlling behaviors toward his spouse.

4. If a person showed derogation and anger toward his parents, he was more likely to show this same behavior toward his spouse.

5. If a person perceived his parents as being care-giving and care-seeking toward each other, he was more likely to be more loving and show less jealousy and aggression toward his spouse.

B. In other research, Phillip Shaver and Cindy Hazan used Ainsworth’s three attachment classifications to explain interaction styles found in romantic relationships.

1. The secure style involves a balance of a preference for closeness and a need for autonomy. In some ways, it is reminiscent of Erikson’s accomplishment of both a secure identity and a sense of intimacy. These people share feelings easily, have little fear of abandonment, find relationships easy, and tend to prefer sexual relations as part of their commitment to another person.

2. The anxious-ambivalent style involves inconsistency in feelings for another. These people are often overly invested in a relationship and, thus, exhibit a lot of jealousy and striving for control and fear of autonomy. They tend to have lower self-esteem when it comes to the romantic relationship, and they like physical contact but often have problems with actual sexual behavior. Often, they drive their partners away by smothering and inconsistent behavior.

3. The avoidant style involves a focus on autonomy to the exclusion of closeness. These people don’t share feelings easily and experience repeated break-ups and failed relationships. They experience less grief with a break-up, yet they are lonelier. They tend to have more promiscuous sexual relationships, in other words, sex without a commitment to a relationship. In some ways, this style is reminiscent of Erikson’s failed intimacy stage in which a person experiences isolation.

4. In their research, Shaver and Hazan found that young adults who rated the style of their current romantic relationship as being predominantly secure also reported having secure attachment styles with their own parents. They remembered their parents as warm and affectionate, and their current parenting to their own children tended to be sensitive and non-compulsive.

5. Adults who rated the style of their current romantic relationship as being predominantly anxious-ambivalent reported having anxious-ambivalent attachments with their own parents. They remembered their fathers as being unfair, and their current parenting to their own children tended to be compulsive.
6. Adults who rated their current style as being predominantly avoidant reported having avoidant attachments with their own parents. They remembered their mothers as being cold and rejecting, and their current parenting also tended to be rejecting.

IV. In conclusion, what seems to be the current status of attachment theory?

A. Most developmentalists today accept that the attachment system develops and functions essentially as it has been described by Bowlby and Ainsworth.
   1. Currently, there is much research that is based on attachment theory or has been influenced by it, and there is strong empirical evidence for the processes occurring in humans as Bowlby and Ainsworth theorized.
   2. The processes laid out by the theory are more precise in explaining the development of relationships than are the more general descriptions found in Freud’s and Erikson’s theories.
   3. There seems to be increasing evidence for the long-term positive and negative influences, respectively, of secure and insecure first attachments.
   4. Attachment processes are now used to explain many related behaviors, including homesickness, the process of infatuation, and the shifts in relationships over time when a marriage or intimate relationship fails.
   5. Attachment theory has been highly influential in changing policies of allowing parents to stay with their children in hospitals, of placing newborns with their mothers right after birth, of the way we handle pre-term infants and the way we handle separations of children from their parents, and in other important parent-child practices.

B. However, the theory does have some shortcomings and points of contention.
   1. It is still unclear what the causes of insecure attachments are and how much influence comes from the parents’ behaviors toward their children.
   2. Many see the theory of an internal working model having a strong control of future relationships as metaphorical at best and, indeed, misleading at worst.
   3. A more parsimonious view would be that we encode or represent observations and habits from all our experiences, then use what we have learned in future encounters and relationships, but that we do not need some magical construct of an internal working model to explain this process of learning. In fact, the earliest relationships may have only limited influence on future relationships. More likely, all experiences influence subsequent experiences.

C. Attachment theory does organize and simplify the account of a real relationship process that occurs in humans and allows us to understand it, whether accurately or not.

Supplementary Reading:

Questions to Consider:
1. Does it seem to you that in your life and the lives of those you know best, people usually repeat the same patterns from one relationship to another? For example, do people tend to marry spouses similar to their own parents, or do they get involved in romantic relationships that repeat the same patterns with similar partners to those found in earlier relationships?
2. Does it seem to you that attachment theory is a valid explanation for real-life development, that it is not just a fictional story? Why or why not?
Lecture Sixteen
Bandura’s Social Learning Theory

Scope: This lecture introduces the fourth major theory: Albert Bandura’s social learning theory. It begins with an introduction to some basic principles of learning theory, which include the relation between stimulus input and response output and the influence of reinforcements in changing behavior. The lecture then shows how Bandura added a cognitive focus to learning theory by showing how the influence of what one expects to happen is more important than what actually happens. This focus led to the concept of vicarious reinforcement. The lecture then discusses the primary role of observational learning and imitation in human development. The lecture concludes with some basic principles of how imitation functions.

Outline

I. Albert Bandura’s social learning theory was a modification of traditional learning theory, and traditional learning theory grew out of the behaviorist approach of John Watson and others, including B. F. Skinner. Before discussing Bandura’s theory, we must discuss some basic premises of traditional learning theory.

A. The basic model of a behaviorist and learning tradition is what is often called S-R associations. The S and R refer to stimulus and response.
   1. All that an individual can do and all that it learns is dependent on stimulus input to the organism. A stimulus (the S) is picked up by the senses; for example, we see an object, such as a donut, in our visual field. The stimulus excites afferent (i.e., incoming) neural pathways that then connect to the brain and cause associative firing of neural connections in the brain. From there, a signal is sent out efferent (i.e., outgoing) neural pathways that have only two types of connections in the organism. Neurons connect to either a muscle, causing the muscle to contract, or a gland, causing it to release a hormone. We then respond (the R) by the combination of muscle contractions and hormone releases; for example, we salivate on seeing the donut, reach for it, and eat it.
   2. Reinforcement is simply a term for a positive or rewarding effect caused by our responses that increases the likelihood that the organism will respond the same way the next time the stimulus excites the neural system. Likewise, punishment refers to negative or aversive effects caused by particular responses.
   3. For example, feeling full and gaining sensory pleasure are reinforcements for the behavioral response of eating a donut, while feeling nauseous and vomiting would be a punishment for eating a donut.
   4. When an association is made between the stimulus and the response and this association has rewarding results, the pathway becomes stronger and the likelihood of the response occurring in the future is increased. Thus, the stimulus-response connection will be repeated and can become habitual. Learning can be defined as this change in response rate.
   5. Most of learning theory and the research that it elicited has concerned itself with explaining the conditions and patterns that would come with this basic model of S-R and how reinforcers create the learned habits or pathways.
   6. This approach has developed some highly effective behavior modification techniques to change the behaviors of others or even to apply to oneself.

B. If one considers the basic mechanistic approach that we discussed earlier in the lectures, one can see that learning theory developed from a mechanistic worldview.
   1. The organism waits to respond to stimuli from outside.
   2. Learning is explained by basic laws of association, but the workings of the association areas of the brain are not considered to any great degree because the approach focuses on what comes from outside in, not inside out.
   3. Learning theory was opposed to Freud’s psychodynamic theory, with its putative internal motivations, conflicts, and mechanisms.
   4. Thus, learning theory is a theory of behavior, not a theory of motivations or cognition.
   5. Learning theory does not consider the laws of learning to be any different for infants, children, adults, or indeed, other animals. The same principles are seen to apply to all organisms, and no stages of development are theorized.
II. Bandura was trained in this learning theory tradition.
   A. He was born in 1925 in Canada and received his Ph.D. in 1952 from the University of Iowa. At that time, Iowa was a primary center of research in psychology in the learning tradition. Bandura then became a professor at Stanford University, where he still is today.
   B. Expanding on the work of others (for example, Miller and Dollard had coined the term social learning in 1941), Bandura added two crucial changes to traditional learning theory.
      1. He explained the mechanism of reinforcement in terms of expectancies, which added a cognitive focus.
      2. He described the primacy in humans, as opposed to lower animals, of the process of observational learning through imitation of others.
      3. This focus on our learning from others made this type of learning social.

III. First, we will discuss Bandura’s view of expectancies.
   A. Unlike most learning theorists, Bandura discussed the processes that occurred in the brain that change behavior. This new emphasis on internal processes added a cognitive focus to behaviorism, a focus that extreme behaviorists rejected.
   B. When a rewarding outcome occurs after one emits a behavior, it cannot have any effect on the behavior that was just emitted. The only effect can be on future behaviors.
      1. Thus, it is one’s expectation of reward in the future, not past behaviors per se, that actually changes (that is, reinforces) response rate in the future.
      2. To have an expectancy of some outcome, one must believe that there is a means-end contingency; that when some response occurs to some stimulus condition, then a particular effect is also likely to occur.
      3. The expected contingencies (and under what conditions they can be expected) are what are learned. One need never really be reinforced; one only has to believe in the expected contingencies between response and reinforcement to act on them.
      4. Learning causal relations in this manner is not a mindless, reflexive association but a cognitive process.
      5. For example, if you believe, based on past experiences, that when you say “please” while asking for something, another person is more likely to give you what you want, then you will say “please” more often. In some cases, you may believe there is a contingency where none exists, but you will, nevertheless, act according to what you believe or expect to happen.
   C. The focus on contingency expectations determining what outcomes act as reinforcers for behavior led Bandura to discover an important process—vicarious reinforcement.
      1. Even if a person were never reinforced for emitting a particular response or performing a particular behavior, that person might increase the rate of responding in a particular way simply because she had seen others being reinforced for responding in that way.
      2. Indeed, one need never be reinforced to experience the effects of reinforcement because one might come to expect a contingency between a response and the outcome. This learned contingency is socially learned from observing others and is called vicarious reinforcement because it only happens to the person vicariously, not directly.
      3. For example, a child, Suzie, might see another child, Sammy, hit a playmate and take away the playmate’s toy. Suzie might then see Sammy playing with the new toy with no ill effects and no intervention from adults. From this observation of others, Suzie may process a putative contingency between hitting and taking away toys and get new toys to play with as one’s reward. Suzie might now be more likely to also hit and take away toys. Of course, one can also develop expectations of negative outcomes and punishments.
      4. Vicarious reinforcement explains many conditions in which humans learn new behaviors or change the response rates for old behaviors even though they are never directly rewarded or punished for these behaviors.
      5. Vicarious reinforcement also assumes some complex cognitive processing. For example, one must see a similarity of oneself to the other person and believe that the contingency that occurs for another person will be valid for oneself as well.
IV. Bandura’s other major contribution was the astute observation that much of what we learn, even as young children, comes not in situations in which we are reinforced or punished for responding in a particular way or in conditions in which we learn by repeated trial and error, but in cases in which we simply observe others behaving, then imitate (or copy) the behaviors we have seen modeled (or performed) by others.

A. The strength of observational learning is that a person can learn a new behavior with no previous trials. Thus, observational learning is efficient and powerful and increases the rate and complexity of learning in humans far beyond the levels of lower animals.

B. Learning by observation without trial and error, depends on cognitive processing; Bandura described a two-phase process to such learning—acquisition and performance.
   1. During the acquisition phase, a child needs to attend to the model and use some mechanism to encode the observed actions into his memory storage.
   2. Bandura believed that a person uses two main symbol systems to encode the observed information: either by imaging (that is, creating mental pictures of what one had observed) or by verbally encoding (that is, translating the observed action into a linguistic narrative). Others believe that these two symbolic processes do not adequately explain the complex ways that humans represent and encode their experiences in memory.
   3. In one experiment, Bandura randomly assigned his child subjects to one of three groups, one that verbally narrated what they saw a model do, a second that counted out loud to interfere with symbolic encoding, and a control group that did nothing. He found that the verbal narration group showed the most imitation of the model; the control group, the next most imitation; and the interference group, the least.
   4. Bandura argued that this experiment showed that cognitive encoding during the acquisition process was important to learn a behavior through observation.

C. According to Bandura, after acquisition of an observed behavior has occurred, there is often a performance phase.
   1. One may have encoded (and, thus, learned) a behavior and may have encoded an expectation of contingencies for what will happen when one performs the behavior. However, performance of the behavior will only occur when one believes the appropriate contingencies are in place.
   2. A person may have learned a behavior by observing others but carry it around inside his mind for a long time before ever actually imitating the behavior. The behavior will, nevertheless, be available if the person decides to use it.
   3. For example, a child may observe his mother and father yelling and swearing at each other, encode the behaviors, and develop some beliefs as to what will happen if one performs these behaviors (acquisition phase). Then, several days later, he may yell and swear at his brother in the same way when he wants to control his brother and his parents are not around to punish him (performance phase).
   4. In one simple but cleverly elegant experiment, Bandura randomly assigned child subjects to one of three conditions. In one condition, the children saw a model being rewarded for acting very aggressively. In a second condition, the children saw the model being punished for acting aggressively, and in a third condition, the control, the children saw no reward or punishment being given to the model for acting aggressively. Afterward, the children who saw the model being rewarded showed the most imitation of aggression; the children from the control condition showed the next most imitation of aggression; and the children who saw the model being punished showed the least imitation. These results were expected because of vicarious reinforcement.
   5. However, the next part of the experiment was the most important. All the children were then asked to show the experimenter what the model had done. When requested, all the children imitated all the aggressive behaviors they had observed. There were no differences between the groups. In other words, the expectations (through vicarious reinforcement) affected performance of imitation, but acquisition of the behaviors was already in place for all children.
   6. These principles of observational learning are profoundly important when we consider the effects of media violence on children or the idea that children observe others and learn from them all kinds of behaviors, both good and bad.

Supplementary Reading:
Questions to Consider:

1. Some people argue that learning theory in general, including Bandura’s social learning theory, is mechanistic in its underlying assumptions. In particular, it treats humans as functioning like machines and as only reacting to the environment, rather than acting on it. Do you see this underlying focus in Bandura’s theory? Is this approach necessarily invalid? Perhaps this view of humans does represent their real nature.

2. What do you see as examples of the benefits to human development that ensue because we have a predisposition to learn through observation? What do you see as examples of how we can quickly acquire dangerous and negative behaviors, as well?
Lecture Seventeen

Bandura’s Self-Efficacy Theory

Scope: This lecture discusses a further cognitive focus in Bandura’s theory in which he argued that a person’s development of a sense of self-efficacy (or belief that one can have an effect on some aspect of one’s environment) guides what tasks or challenges one will attempt and how one will develop further skills. The lecture gives examples of the development of self-efficacy. It concludes with a discussion of how Bandura’s theory is not tied to specific ages or stages of development and what implications this has for understanding human nature.

Outline

I. In the 1980s, Albert Bandura presented a second theory called self-efficacy theory, which is connected and complementary to his social learning theory. This theory has had a substantial influence, not only on researchers in child development, but also on researchers of adult development and aging.
   A. In this theory, Bandura became even more focused on internal cognitive processes in explaining learning and development and, thus, further distanced himself from the classic learning theorists.
   B. Self-efficacy can be defined as the belief that one can cause some effect on one’s environment.
      1. A person’s self-efficacy is, in effect, the way a person perceives his own abilities and competence in dealing with a problem or challenge. A person can perceive his abilities in a particular domain to be high or low.
      2. How a person sees his abilities will determine to which source he attributes successes and failures (either to himself and his ability or lack thereof or to the situation or others). These attributions of success and failure and beliefs about one’s level of efficacy in being able to accomplish something will then determine what kinds of tasks a person will try, what challenges he will take on, and what he will shy away from.
      3. For example, I may believe that I have a high level of social skill and am extremely appealing to women. In this case, I am likely to approach women socially and with confidence and be rather assertive and outgoing in my initial social interactions with them. On the other hand, if I believe that my level of social skill and appeal with the opposite sex are rather low, I am likely to be reluctant to approach women socially and will be rather shy and non-assertive in my interactions with them.
      4. We likely have different levels of self-efficacy for different skill domains (such as for skiing, social interactions, math, and music). However, overall, we may develop a general level or sense of self-efficacy based on our various experiences.
   C. Bandura discussed an important concept that is intimately related to self-efficacy, the concept of reciprocal determinism.
      1. The idea of reciprocal determinism is that a person’s skills and developmental level are not only determined by the environment and others in the environment; the person also creates or determines her own environment by making modifications in it.
      2. If a person believes that she will fail in certain tasks and in certain social situations, she is likely to avoid those tasks and situations. If she thinks she will be successful in other tasks and other social situations, she is likely to seek out those situations.
      3. As a person selects specific environments, the tasks in turn influence what the person will learn and develop. The person will then be even more likely to pick the environments in which she feels competent and comfortable.
      4. This process of reciprocal determinism is greatly influenced by our sense of self-efficacy, and our sense of self-efficacy will increase or decrease in particular areas because of the ongoing process of reciprocal determinism. This chaining of events creates what are called self-fulfilling prophesies. Whatever we believed will happen is validated because we have brought these beliefs and predictions to fulfillment.
      5. In the example above of the person who had a high sense of self-efficacy in his social skills and appeal to the opposite sex, he will place himself in situations in which he gains a lot of practice at these skills
and acts as though these attributes are already present. It is highly likely that he will become the kind of person he already believed he was.

D. How does this sense of self-efficacy develop? Bandura believed there were four primary sources of information or input that act to increase or decrease our sense of self-efficacy.

1. First and perhaps most important, our own personal successes and failures change our self-efficacy through reciprocal determinism. In a sense, “nothing succeeds like success.” For example, if we constantly get high grades on math exams, we will come to believe that we have high math skills and can take exams with confidence.

2. Second, through observational learning, as discussed in the last lecture, we gain vicarious reinforcement. We see the successes and failures of those whom we perceive are similar to us, and we think these attributes must apply to ourselves as well. For example, if we see a person we identify with being successful at public speaking, we may think we are like him in that way and have the same ability. We are likely to imitate him.

3. Third, what others say about us influences how we think about ourselves. In addition, we will be influenced by what others say to persuade us of our ability level. For example, if a child’s teachers and peers constantly tell him he is stupid at math or persuade him to work harder because he is failing, he will likely change his sense of self-efficacy in math skills to match what he has heard.

4. Fourth, the emotional state and the physiological pain and pleasure we feel internally in the context of performing a task will influence the sense of self-efficacy we develop. For example, if while giving a public talk, a person has sweaty palms and a racing heart and feels lightheaded and nauseous, the person is likely to develop a lower sense of self-efficacy about his public speaking ability.

II. Several other researchers have developed theories of motivation similar to Bandura’s self-efficacy theory. This convergence of theorizing and empirical evidence tends to strengthen the validity of this conceptualization.

A. In 1959, Robert White wrote a highly influential paper in which he argued that when humans have met their basic needs (such as for food, water, and rest), they don’t simply shut down like machines or like many lower-level animals. Instead, at those times, they are most intrinsically motivated to act on their world.

1. These times are frequent in our lives.

2. At times like these, we seek out challenging tasks, we want stimulation and excitement, and we want to avoid boredom.

3. When we seek challenges that push us to our limit and are successful at a task, we feel a strong sense of efficacy, of having affected our environment and accomplished something.

4. This sense of efficacy feels good and motivates us to seek it often. In the process, we are more likely to develop mastery and competence in our lives.

5. White argued that this mastery, or competence motivation, was highly adaptive. Because of it, humans remain flexible and ever learning.

6. Susan Harter added to this theory by giving examples of how one’s history of successes and failures over time actually change one’s level of motivation to seek challenges or avoid them.

B. Martin Seligman developed a highly influential theory of learned helplessness. A person often learns to be helpless because of continuous experiences with failing at a task or not having the ability to effect a change in her environment. In a sense, a person tends to give up if she thinks she is helpless to have any control.

C. Based on Seligman’s work, Carol Dweck then developed a theory about how we come to believe what our basic skills and abilities are, to what sources we attribute our abilities. She focused mainly on people’s conceptions of their intelligence.

1. Dweck showed that when a person primarily has experiences in which she has been made to believe that she can change an attribute or ability by her own efforts, she will come to believe that the ability is not a fixed amount or level, that effort determines the skill level she can develop. In this case, a person will be more likely to try harder after failures and accept challenges that give her a chance to develop her skills.

2. On the other hand, Dweck showed that when a person primarily has experiences in which she has been made to believe that an attribute or ability is some fixed entity or amount within her, that she was born with it, so to speak, she comes to believe that she cannot change her skill level. In this case, a person
will be more likely to avoid challenging tasks that might show her to be incompetent and to give up in the face of challenges.

III. In conclusion, what can we say about the value of Bandura’s combined social learning theory and self-efficacy theory?

A. Before Bandura, learning theory did not take account of cognitive processes nor did it account for the great importance of observational learning. Bandura’s theory is still mechanistic and grounded in the behaviorist traditions of learning theory, but he added a cognitive focus and a focus on beliefs, attributions, and expectancies.

B. Bandura’s theory has had a great impact on research on the development of aggression, the development of phobias, the lack of motivation to attempt tasks in older adults, and successful ways of dealing with and treating various problem behaviors and disorders. In an applied sense, his theory has been highly successful.

C. Because Bandura was grounded in the processes of learning, he tended to equate development with learning. In his theory, it seems that all of development is simply what we have learned. Others would argue that he has failed to explain major reorganizations in the structure of thinking and skills.

D. In terms of child development, Bandura’s theory focuses on processes, rather than structural or stage-like changes.
   1. The processes he discussed (e.g., vicarious reinforcement, observational learning, reciprocal determinism) function independently of the age of the person.
   2. This approach has a tendency to treat children as miniature adults, less experienced and skilled, it is true, but functioning with the same nature and internal processes that can be found in adults.
   3. Because of this lack of focus on the unique features of childhood and the way they change from birth to maturity, many believe social learning theory misses important aspects of development and, indeed, of human nature and falsely attributes some adult-like abilities to children that they don’t possess at young ages.

Supplementary Reading:
Bandura, *Social Foundations of Thought and Action.*

———, *Self-Efficacy: The Exercise of Control.*

Questions to Consider:
1. Bandura’s concepts of reciprocal determinism and self-efficacy are revolutionary in one sense. They shift the focus of learning from the view of the environment controlling the child’s development to the view of the child in large part controlling his own development. Do you see the constant reciprocal effect of the environment on the child and the child on the environment as being a valid explanation of what happens for most of us?
2. What do you think the relation is between one’s sense of self-efficacy and one’s self-esteem? Do you think they are the same thing? If not, how do they differ?
Lecture Eighteen
Piaget’s Cognitive-Developmental Theory

Scope: This lecture introduces the most important theorist in the field of child development, Jean Piaget, and his place in the cognitive revolution in psychology. It describes Piaget’s history and how he attempted to combine naturalist biology and philosophy to create a field called genetic epistemology (or how we come to know what we know). The lecture then discusses the basic developmental process of Piaget’s theory. Schemes (that is, patterns of knowing something) are the building blocks that are constantly changed and developed through two complementary processes: assimilation (i.e., everything we know must be processed through our existing schemes) and accommodation (i.e., we must adjust what we know to reality and new incoming information). Equilibration is the process of bringing assimilation and accommodation into equilibrium.

Outline

I. In our discussion of Bandura’s theory, we got a hint of changes that would revolutionize the study of psychology in general, including the study of human development—a shift in focus to internal, cognitive processes. The shift brought about what is called the cognitive revolution. Jean Piaget was one of the foremost theorists to help bring about this revolution.
   A. From the 1920s through the 1940s in the United States, there was a fierce competition between Freudian theory and learning theory (and behaviorism) as ways of explaining psychological processes and change.
      1. By the 1950s, behaviorism dominated the study of child development, which essentially consisted of the study of learning.
      2. However, in the late 1950s and 1960s, theorists in several fields (including Bandura) began focusing on the important but neglected role that internal, cognitive processes played in explaining human learning.
      3. Although Piaget had been influencing European thinkers, he had had virtually no influence in the United States. Then, some of Piaget’s writings in French were translated into English, and a few developmental theorists in the United States (in particular, John Flavell) began writing about his revolutionary theory of development. They introduced him to American researchers.
   B. By the 1970s and 1980s, Piaget’s theory completely dominated the study of child development, influencing almost all the questions and issues that were studied and the research methods that were used. Never in the study of development had there been such a complete paradigm shift, such a complete revolution in the collective worldview, essentially from a mechanistic approach to an organismic approach.
      1. Because of the cognitive revolution, learning theory dwindled in influence, just as Freud’s theory had done earlier.
      2. Today, Piaget’s influence has also abated, but just as Freud’s theory became an implicit part of our thinking, so has Piaget’s theory. Thus, most people who study development have internalized it into their views of human nature.

II. As with other theorists, Piaget’s theory was directly influenced by his own development and history.
   A. Jean Piaget was born in Switzerland in 1896 and died there in 1980.
      1. Even as a child, Piaget had a strong interest in biology, particularly Darwinian evolution. He was interested in how various species change through adaptation to varied environmental conditions. When he was ten years old, he published his first scientific article about his observations of a sparrow.
      2. Because of the influence of an uncle who was a philosopher, when Piaget was in his adolescence, he began studying philosophy. He was particularly influenced by the field of epistemology, the study of knowledge and how we know what we know.
      3. Piaget more or less invented a new field he called genetic epistemology, the study of the origins of knowledge and how we develop what we know.
   B. Piaget rejected the non-empirical armchair approach of philosophers and attempted to combine philosophy with the empirical, scientific approach of a naturalist in biology.
      1. He received his Ph.D. in 1917 at the age of twenty-one from the University of Neuchâtel.
2. He then worked in Paris for a time on the development of intelligence tests (with the tests begun by Alfred Binet).

3. Although the purpose of the research was to develop norms and scoring for the test questions, Piaget became more interested in the errors children made and how their errors seemed to fit specific patterns at different ages. He discovered that children’s thinking, though not on an adult level, was nevertheless organized and had a logic all its own.

C. In 1921, Piaget became the director of the Jean-Jacques Rousseau Institute at the University of Geneva, where he remained for the rest of his life.

1. It was no accident that this institute was named after Rousseau. No major theorist has so followed Rousseau’s philosophy of child development to the extent that Piaget did.

2. Like Rousseau, Piaget believed that children who were allowed to follow their own course of development would develop in an optimal way.

3. He was the extreme organismic thinker, looking at the human as an organism that acted on the world and didn’t just passively react to the environment, an organism that functioned as a structured whole, in which the whole is greater that the sum of the individual parts.

4. He believed that children went through a sequence of reorganizations of their mental structures (or systems of processing information). Thus, Piaget found it easy to think of development in terms of stages, for which he was famous.

D. Piaget turned out to be one of the keenest observers of children’s behavior we have had in the field. For some of his most important work, he kept detailed accounts of systematic observations of his own three children over a period of several years (harkening back to the baby biographer approach). Because of this, he discovered important points about child development that others had missed, though they had observed children for millennia.

E. Piaget did not accept the basic behaviorist traditions of thinking, which mainly came from American theorists.

1. He believed that children should develop at their own rates and learn things for themselves (harkening back to Rousseau), whereas behaviorism, which placed no emphasis on age or stage differences, believed that we could speed up development and make it more efficient with the appropriate conditioning techniques.

2. Piaget’s answer to the American obsession with speeding up development was the following: “Anything you tell a child, you prevent him from discovering for himself.” He believed that if a child developed more slowly, thinking things through on his own, in the long run, he would develop more adaptive, scientific, and logical abilities.

III. The foundation of Piaget’s theory is dependent on a basic developmental process that he believed was at work throughout our lives. His idea for this process came from his early work in biology.

A. Everything we know and understand is filtered through our current frame of reference. We construct our knowledge based on what we already know.

1. Piaget called the basic unit of our understanding a schema or a scheme. A scheme can be defined as a pattern of knowing something, the structured way that we have stored in our minds of how we recognize, act on, and understand something. Schemes make up our frame of reference.

2. Because we can’t know anything without some frame or structure by which to process incoming information, we must be born with some schemes to get us started. Everything we know, thus, starts with the schemes we are born with.

3. Three of the basic schemes we are born with are reflexive actions in dealing with the world: looking, grasping, and sucking schemes. A newborn’s understanding of the world begins to emerge based on what she can look at, what she can grasp, and what she can suck. She does these automatically and reflexively.

4. However, we would stay completely static in our development without some process that allows us to expand and modify the schemes that we have and develop new schemes.

B. This development occurs through two complementary processes: assimilation and accommodation.

1. Remember, we only know what we can process through what we already know. This is the basic process of assimilation. We apply our current schemes to a new piece of information from the environment and incorporate the new information into our existing scheme.
2. It helps to think of the biological basis of this metaphor. If we eat something, we incorporate the new material into our body. We assimilate the food by making it part of ourselves.

3. A baby sucks what comes into his mouth. He knows a nipple by sucking it and by how it feels in his mouth. If he then has a finger placed in his mouth, he applies his sucking scheme to the finger. If he can suck it the same way, it becomes known as a suckable object.

4. An older child may have developed a scheme for a bird—a visual perception of feathery little things that fly around trees and land on the lawn. If he sees a large crow that hops on the lawn, then flies to a tree, he may apply his bird scheme to the crow and identify it as a bird, as well.

5. However, all new information from the environment requires that the person constantly modify his schemes because no two objects or situations are perfectly similar. One must adjust his mouth differently to suck a finger rather than a nipple. One must look for similarities between a sparrow and a crow in order to apply the bird scheme to both. Thus, assimilation requires generalization and, often, an overlooking of environmental differences.

6. Though assimilation allows us to generalize and apply what we know to many individual instances, it tends to distort reality and not adapt to it. What else is needed?

C. The process of accommodation is necessary and complementary to assimilation.
   1. The process of accommodation is the process of adjusting or modifying our current schemes to be able to handle new incoming information or changes in an object. Thus, we adjust to reality rather than distorting reality.

   2. Accommodation allows us to modify existing schemes so that they can be applied to more varied instances.

   3. However, sometimes a new piece of information or new object is so different that we simply cannot deal with it with our existing schemes. Accommodation also allows us to create new schemes based on our current schemes. Thus, we are constantly developing new schemes.

   4. The baby in our example above may do fine applying her sucking scheme to various objects and modifying the scheme to handle the differences. However, one day she may run into a wall and try to suck it, but you can’t suck a wall. She may accommodate by developing a new scheme, a licking scheme, because you can lick a wall.

   5. The older child in our example above may one day see a butterfly and apply her bird scheme, saying “bird.” However, a butterfly acts differently in its flight pattern than a bird. The child’s mother may say, “No, that’s not a bird; it’s a butterfly.” The child will now accommodate by developing a new scheme for butterflies.

   6. Assimilation allows us to use what we know and understand already to make sense of the world and to generalize to new information. Accommodation allows us to modify what we know and expand our schemes so that we differentiate between different things in the world and adjust to reality rather than distorting it.

   7. The process results in the development of innumerable complicated and interconnected schemes that make up our mental structure, our understanding.

   8. For Piaget, this basic process was truly an interaction between the organism and the environment. It took into account the child’s active reaching out to understand the world and the world’s influence on the child.

IV. Piaget’s complementary processes of assimilation and accommodation comprise the equilibration process, which for Piaget, was the most important process in development.

   A. According to Piaget, by our nature as living organisms, we desire a sense of equilibrium; thus, we are constantly motivated to be able to fully assimilate and fully accommodate to objects and situations in our environment. When we can accomplish this, we reach a state of equilbrium.

      1. Piaget called the process of fully using assimilation and accommodation and bringing them into balance the equilibration process. This is the process by which we adapt to the world. This is the process of intelligence.

      2. Whenever we reach a new level of equilibrium, we cannot stay put for long because each new level of understanding opens up new problems and discoveries. Thus, the equilibration process is not static but dynamic. Our active nature and the constant influx of new challenges from the world keep us developing and adapting throughout our lives.
When we can’t fully assimilate a new object or situation or can’t fully accommodate to it, we feel off balance and do not adapt well to reality. We may even feel emotionally upset. We are in a state of disequilibrium between assimilation and accommodation.

1. If assimilation dominates and we do very little accommodating, we distort reality.
2. For example, a child’s mother said she was going to take him to the children’s museum. He began to cry and said, “Please don’t leave me at the Naughty Museum.” What did he mean? He had a scheme for museums: We go to an art museum to see art; we go to a science museum to see science; therefore, we must go to a children’s museum to see children. He was a child. His mother was going to leave him there, probably because he had been naughty. His assimilation of “going to the children’s museum” to his limited museum scheme distorted reality.

3. If accommodation dominates and we do very little assimilating, we fail to understand what we are doing.
4. For example, a child thought she knew how to tie her shoes because she had observed and imitated her older brother. In fact, she performed all the similar body movements that her brother had. She bent down the same way, and she swished her shoelaces around the same way, but she tied no knots. Blind imitation is not adaptive to reality.

Supplementary Reading:
Phillips, *Piaget’s Theory: A Primer*.
Piaget and Inhelder, *The Psychology of the Child*. (This is the best summary of Piaget’s entire theory that he wrote; however, it is difficult to understand without already having some knowledge of the theory.)

Questions to Consider:
1. Review the previous discussion of the mechanistic and organismic approaches. In what ways do you see that Piaget’s theory fits into the organismic approach?
2. What examples can you see in the behaviors and sayings of children and in the behaviors of adults that indicate their assimilation of new information to their existing schemes, often without full accommodation?
Lecture Nineteen
Piaget’s Early Stages

Scope:  This lecture begins with a discussion of how each new major level of equilibrium reorganizes one’s thinking. Piaget’s sequence of four major stages describes how we get from infant to adult intelligence. The ages are not so important, but the invariant order of the stages is. The lecture describes stage 1, the sensory-motor period, and how the baby starts life with reflexes and, by the end of infancy, develops emerging symbol use. The lecture concludes with a discussion of how preschoolers master symbolic skills in Piaget’s second stage, the pre-operational period.

Outline

I. According to Piaget, we are constantly reaching new levels of understanding and forming new levels of equilibria. At times, however, so many new levels of understanding converge that we reach a major new equilibrium level. These new levels cause a major reorganization in the structure of our thinking.

A. Piaget called these shifts to new levels stages.
   1. Think of a person climbing a mountain range as an analogy for development to a new stage of thinking. The person slowly but gradually makes progress up the steep grade. When she reaches the top, she can now see vistas that were not available to her before. She has a qualitatively different situation in front of her. She will see that she has yet other steep grades and challenges to meet, challenges she wasn’t even aware of before she reached this particular level.
   2. Stages are defined as qualitative shifts in one’s way of thinking, reorganizations of both one’s understanding and one’s mental tools and strategies to solve problems. They aren’t simply quantitative additions to one’s knowledge or skills.
   3. For example, in language development, one develops rules for how to form plurals and past tense; one does not simply add vocabulary. When a child says “my feets” or “I dranked the milk,” we know that she has developed these rules and can use them in all her language.
   4. Each stage is based on development in the previous stages. One cannot function at stage 3, for example, without having the skills that emerged in stages 1 and 2. In this way, the order or sequence of the stages is invariant.
   5. Although Freud and Erikson considered the order of their stages to be invariant, their stages were more descriptive. Piaget’s stages follow a logical necessity to the order; therefore, it is difficult to think of abilities at one of his stages being possible before the abilities at a previous stage have developed.
   6. Although Piaget provided typical ages for his stages, his ages were not so important. Some children develop through the stages at a faster rate than other children.
   7. Piaget believed that his stages were universal in two senses. First, he thought that all neurologically normal people, regardless of their cultures, would develop through the sequence of stages. Second, he thought that a person in a given stage would be in that stage for practically all of his or her developmental domains, whether in mathematical understanding, social skills, conservation skills, or other areas.
   8. Because Piaget’s primary goal was to describe the whole sequence of development in how humans get from the cognitive level they are born with to their adult level of thinking, he tried to explain how each stage grew out of the previous stages.

B. Based on his observations of children’s abilities and reasoning at different ages, Piaget believed there were four major stages of cognitive development. He often called these major stages periods. Below is a brief overview of the four periods. The details and definitions will be covered later.
   1. The first period is called the sensory-motor period. It begins at birth and lasts until about eighteen to twenty-four months of age (during infancy). It starts out being based on the reflex schemes babies are born with and ends with children’s development of symbol use.
   2. The second period is called the pre-operational period. It begins at about eighteen to twenty-four months and lasts until about six to seven years of age (during the preschool years). It starts out based
on basic symbolic skills that the child has developed and covers the period when he or she learns to master symbolic thinking.

3. The third period is called the **concrete-operational period**. It begins at about six to seven years and lasts until about eleven to twelve years of age (during the middle childhood years). It starts out with children’s emerging ability to use multiple representations and cognitive operations and lasts until formal thinking emerges.

4. The fourth period is called the **formal-operational period**. It begins at about eleven to twelve years and lasts throughout adulthood. However, Piaget believed that this way of thinking was mastered during adolescence. Although adults continue to learn throughout their lives, Piaget saw no evidence for additional major reorganizations in thinking during adulthood. During this last period, people develop the ability to reason hypothetically and in highly abstract ways.

II. The **sensory-motor period** is aptly named. During this period, all that a child knows is based on the information that comes in through his senses and the motoric actions that he can perform.

A. At birth, the child gives no evidence of having symbolic skills or having an ability to evoke symbolic representations of objects or memories.
   1. A symbol can be defined as one thing (an object, an idea, an image, or an action) that refers to or stands for something else (often called the referent).
   2. The symbol can be differentiated from the referent. For example, the word *dog* is a symbol for the actual animal, whereas the dog’s head is not a differentiated symbol for the entire dog. In pretend play, a stick may be a symbol for a car, or a person can conjure up a mental image of car to use as a symbol for a car.
   3. We will return to a discussion of symbol use when discussing the next period. For now, it is crucial to realize that if a baby has no symbol use, then he must live in the present dependent on his sensory input and his overt actions.
   4. This does not mean that the child does not have memory, however. Children can recognize familiar objects or places by using their schemes. They also develop intentions and anticipations, when one thing signals that something else will follow. Thus, they develop an understanding of means-end causality in real three-dimensional space.
   5. The major developmental goal during this period is for the child to learn how the real world works and develop the prerequisites for symbol use, which emerges during the second year of life.

B. Piaget divided up the sensory-motor period into six sub-stages.
   1. First, children are born with reflexive schemes, such as sucking, looking, and grasping. Children come into the world using these schemes. The schemes are considered reflexive because the child does not have voluntary control or anticipate his actions.
   2. Second, at the seven-week-shift in development, major portions of the cortex begin to fire, and this extra neural development seems to make possible shifts in the child’s voluntary control of behavior. For example, the child can now decide to grasp an object or not or attempt to look at some object or face. The child shows intentions and the beginning of understanding means and ends.
   3. Third, children develop a sense of means-end causality. For example, the child may grasp an object (the means) to bring it into his line of vision so that he can look at it (the end).
   4. Fourth, children pay attention to variations in the end results of actions and what caused the variations. It is as if the child were playing with themes and variations in his explorations of the world.
   5. Fifth, children systematically experiment with varying the means to test the end results. It is as if on a sensory-motor level, they have become young scientists. For example, one child learned that if he dropped food from his high chair tray (means), it would fall on the floor (end). He then by accident observed that the food fell in different places depending on where he dropped it. He then systematically varied the dropping of food and the force with which he threw it to watch what changes these actions would have. When his mother picked up the food, he discovered a new end using the same old means. He now could drop food (the same means) to get his mother to bend down and pick up food (new end) or to get her exasperated (yet a new end). He could also do these dropping experiments with toys and other objects. This is an example of a small sensory-motor scientist at work.
   6. Sixth, usually between about fourteen and twenty-four months, children make a transition into the next period. With all their experience with means and ends and causality and dealing with objects in the real world, they begin to show insight learning. That is, they perform the actions in their mind without
actually going through sensory-motor trial-and-error learning. At the same time, they show budding symbol use. They begin using words and developing word order in their speech. They begin showing simple pretend play, such as pretending to drink from a cup, and they show a spurt in recall memory, in which they can think of things that are no longer present in their environment and without the aid of cues.

7. It now seems that neurological changes at this time in fact make possible the use of accompanying mental associations necessary for symbol use.

III. Symbol use is beginning, and with it, children have reached a new plateau or level of thinking. They are not tied to the here and now. They no longer require sensory input to think of things, nor do they need to act overtly on their environment to think about causality and how things work. This transition takes them into Piaget’s second stage, the pre-operational period.

A. The major developmental task of this period seems to be for the child to perfect the ability to have anything stand for anything else.
1. For example, early on in a child’s symbol use, she often needs external props that are highly similar to the referent in order to symbolize the referent (e.g., a toy telephone is needed to stand for a real phone). Over time, the child can use props that are dissimilar and completely unrelated to the referent to symbolize it (e.g., a toy car can now stand for a telephone). Eventually, the child needs no external symbol at all but can merely imagine the referent (e.g., the symbol is completely internal and mental).
2. This mastery of symbolization is significant because it frees the child from the present environment. She can now think about anything, conjure up anything, talk about anything, and dwell on the past and the future, as well as the present.
3. Paradoxically, by freeing oneself from concrete reality, a person gains greater flexibility and adaptability to reality.

B. Despite children’s accomplishments in mastery of symbols during the pre-operational period, Piaget’s descriptions of this period often focus on the things that children cannot do, the errors they make. Understanding what children cannot do helps to define the transitions in development to the next stage—what they can do later on.

C. Preschool children can represent and imagine many things, but they tend to center their focus on only one thing or one aspect of a situation at a time.
1. Because of their lack of ability to decenter, or to consider more than one perspective or aspect at the same time, they often have problems with perspective taking.
2. Perspective taking is the ability to see a situation from more than one perspective and to compare them.
3. Piaget performed an experiment in which he had children look at a model of three mountains from each of the four sides of the model. Preschool children could pick out a picture of what their viewpoint looked like, but when they were asked to pick out what the mountains looked like from the viewpoint of someone looking at them from a different angle, they got confused and picked their own viewpoint again. Thus, they lacked perspective taking.
4. Piaget said that this thinking in preschoolers was egocentric thinking because children tended to center on their own viewpoint to the exclusion of other viewpoints. However, he later regretted using the term egocentric because he meant that children had a cognitive developmental deficit, not that they were selfish or egotistical.

Supplementary Reading:
Piaget, *The Origins of Intelligence in Children*. (This book, like all of Piaget’s writing is difficult to read; however, in a recent poll of developmental psychologists, this book was voted as the most influential and classic writing published about child development in the twentieth century. It gives a detailed account of the basic process and numerous examples of development during the sensory-motor period.)

Piaget and Inhelder, *The Psychology of the Child*, chapters 1 and 3 cover the sensory-motor and pre-operational periods. (Inhelder was one of Piaget’s most important collaborators.)
Questions to Consider:

1. Do you think Piaget’s equilibration process involving assimilation and accommodation can be anything more than a metaphor? Though this construct does make sense to many people, still many researchers question whether it can ever be empirically tested.

2. From your experience observing children, do you think of development in terms of set stages, or do you see development as much more gradual, without any qualitative shifts and spurts and plateaus?
Lecture Twenty
Concrete Operations

Scope: This lecture continues the discussion of Piaget’s stages of development. It begins with a discussion of what preschoolers can and can’t do, then looks at how the five-to-seven-year shift is a pivotal transition to Piaget’s third stage, the concrete-operational period. During this shift, multiple representational skills emerge. The lecture describes what an operation is and why Piaget called the stage concrete. The lecture concludes with examples of children’s developing concepts of conservation and kindness.

Outline

I. Looking at what preschoolers cannot do is a way to understand the five-to-seven-year shift, a pivotal transition to Piaget’s concrete-operational period.

A. Sometimes, preschoolers say poetic and humorous things because of their lack of perspective taking and their unique way of looking at one facet of a situation.
   1. In one example described by Chukovsky, a Russian author of children’s stories, a mother was drying off her daughter after the girl’s bath. The girl looked down at her naked body and, with the wonder and excitement of discovery, said, “I’m barefoot all over!”
   2. Although this was a delightful and poetic way of expressing something, it was based on a centering of only one aspect of her situation. She saw a lot of bare skin; she probably thought about when she had seen bare skin before—when she was barefoot—and she equated that one incident with what she saw now.
   3. The lack of perspective taking in this example is also an illustration of how a child might assimilate a new situation to an old scheme (one of being barefoot) without fully accommodating to the situation. Thus, the child distorts reality, albeit poetically.

B. Because of this same lack of ability to consider multiple perspectives or pieces of information, preschool children also have a difficult time understanding how someone else’s mind works, how we come to believe what we believe.
   1. Researchers, such as John Flavell and Henry Wellman, have tracked the development of children’s ability to understand how someone develops false beliefs or beliefs that vary from one’s own.
   2. In one classic study, a child is shown a story about dolls in which a doll hides a ball in a drawer in his room. He then leaves, and his mother enters the room. The mother moves the ball from the drawer and puts it under the bed. Then the other person comes back into the room to get the ball. The experimenter asks the child where the boy will look for the ball and where he believes it will be. Three-year-olds say that the child will look under the bed where the mother put the ball and that he believes it is there. Only at about five years of age do children consistently say that the child will look in the drawer for the ball and that he believes it is there because he doesn’t know that his mother moved it.
   3. This development is not an all-or-none process. Children during this period gradually improve in these abilities. Even as adults, we often still show egocentric thinking and problems with perspective taking.

II. Because so many changes in thinking emerge during the transition from the preschool to the school years, many have come to call this time the five-to-seven-year shift. (Sheldon White coined the term.)

A. What actually develops during this transition period?
   1. Many now believe that there is probably some neurological change in processing capacity that makes possible changes in cognition, though our knowledge about these neurological changes is not yet clear.
   2. Probably based on a combination of neurological changes, past experiences dealing with perspective-taking issues, and the emerging mastery of systematic symbol use, five- and six-year-olds develop the ability to represent a thing, a person, or a situation in multiple ways and to switch back and forth easily between these representations to compare them and to coordinate them. Thus, they develop multiple representational ability.
   3. As an example, a child may now be able to understand how a person can be represented as having a false belief in something and, at the same time, be represented as wanting to tell the truth but being in
error because of a lack of correct information. Likewise, another person may have a valid belief about something but also be represented as wanting to deceive the child and, thus, not give out the information the person actually believed to be true.

4. Multiple representational ability makes possible the ability to efficiently read others’ intentions and truthfulness, to effectively deceive others, to use strategies to compete, to understand the needs of others, and to follow complex rules. The list goes on and on.

III. This shift in basic representational skill matches Piaget’s observations and his belief that children enter a third stage, the concrete-operational period.

A. What’s in a name? For Piaget, an operation is a mental transformation that a child can perform on something or idea that can also be reversed, or brought back to the original state by a complementary transformation.

1. The perfect example of an operation comes from basic mathematical operations. If we have 4, then add 3 to it, we have performed a transformation on 4 to turn it into 7. Addition, therefore, is an operation. The transformation of 4 into 7 can also be reversed with another transformation, that of subtracting 3 from 7 to turn it back into 4. Thus, subtraction is a reversible transformation of addition, just as division is a reversible transformation of multiplication.

2. In the case of the child hiding the ball in a drawer, there was an operation that transformed the situation (that is, her mother moved the ball to be under the bed). This operation can also be reversed by the transformation of moving the ball back to the drawer. Operations can function not just in mathematics, but also in nature, in social situations, in virtually all domains of our lives.

3. An important point to remember is that operations need not be physically performed. They can be done mentally (that is, symbolically).

4. Another important point is that operations are made possible because a child can simultaneously represent multiple aspects of a problem and compare them. The child can take account of how things are in State A before a transformation has occurred, how things are in State B after the transformation has occurred, and what the transformation is. This multiple representational ability makes reversible operations possible.

B. Why did Piaget call these operations concrete?

1. Some people mistakenly believe that what Piaget meant by concrete operations was that children had to perform them physically on real objects.

2. What he meant by concrete was that mental operations were possible as the child considered real-life situations, concrete instances of a problem, not hypothetical or highly theoretical problems.

3. For example, a seven-year-old child can understand how, if John is taller than Bonnie and Bonnie is taller than Peggy, then John is also taller than Peggy. A child can perform this type of inference by seriating the order of items (that is, putting them in order to compare them). In this case, Bonnie is both shorter than someone and taller than someone. (Once again, she is represented in two ways that can be compared.) This is a concrete situation.

4. However, if we asked this same child to seriate a series of fractions with which he had had no experience or to define seriation, he would not have the capacity. Concrete operations means that children are limited to specific concrete instances for which they have had some related experience.

C. With the further mastery of operational thinking, children come to classify their world and learn about relations and causality through their own logic, not just based on what they have observed.

1. They can understand that things aren’t always as they appear. An object may appear red because of the lighting on it but indeed be white.

2. Associated with this operational ability comes the belief in necessary truth. Some things must be true because logic says they must be this way. A person’s knowledge of transformations again tells him that certain transformations are not possible even if it appears that they are. For example, a magician is impressive because one knows that the trick cannot be magic, cannot be real. One cannot transform a scarf into a dove.
IV. We will discuss two specific examples of concrete-operational thinking, *conservation ability* and *conceptualization of kindness*.

A. The concept of *conservation* refers to the ability a person has to understand what remains the same about an object or person when some things change. In other words, a person can conserve the identity of an object amid change.

1. This ability is made possible because of reversible operations, which in turn, are made possible because of multiple representations.

2. A perfect example comes from an experiment that Piaget first performed. If a preschool child sees two identical glasses that are filled to the same height with water, she will report that they both have an equal amount of water in them. However, if she sees one glass of water poured into a tall, thin beaker (and sees the water rise to a higher level), she will say that that beaker now has more water in it. If she sees the water poured back into the original glass, she will say that the two glasses again have the same amount of water in them. She cannot take account of the multiple aspects of the transformation (pouring the water into a different-shaped glass) or keep in mind that the transformation is reversible. She is overwhelmed by appearances and does not conserve the basic amount of the water.

3. If we repeat the same procedure but this time, with a school-aged child, we will observe a different outcome. This time, the child will report that the amount of water stays the same in both the short, wide glass and the tall, thin glass. The child will be able to discuss the fact that we could pour the water back and it would be at the same level again, that no water was added or taken away, and the idea that the glass being thinner compensates for it being taller. This child, despite the appearances of the water in the glasses to the contrary, does conserve the basic amount of water.

4. Although we can train children to give the correct answers, their basic understanding of conservation under many different variations of this task on different materials (such as with masses of clay, with the number of things) shows the switch in understanding conservation that Piaget originally observed in children. Young children (at about three and four years) cannot conserve the amount or identity of things, while older children (at about five to seven years) can.

B. There are important implications of this conservation ability.

1. Problems in conservation appear in social relationships as well. One preschooler asked his father whether he would still be his father when he became a doctor. The child was quite concerned. In other words, how can one’s identity be conserved in the face of changes in roles, appearance, or relationships?

2. Many young children have had problems dealing with the divorce of their parents in part because they are concerned with the conservation of the parent-child relationship when the spousal relationship has ended. Again, the question for children is what remains the same when some things change.

3. In one study performed by Susan Carey, a tube was surreptitiously connected to the glasses. In this way, the experimenter could change the water level to arbitrary amounts, as in a magic trick. Children who were found to not have the ability to conserve did not seemed surprised when the water levels did not end up where the children had predicted they would. On the other hand, children who did have the ability to conserve were upset and protested when the water levels did not end up where they had predicted they would. In other words, they had a necessary truth. Because of their understanding of conservation, they believed that certain results had to occur despite what appearances told them.

C. James Youniss completed an experiment that revealed another variation on the developing ability to perform concrete operations.

1. He asked children to define and describe what made a person kind. He gave each child concrete examples of social situations.

2. He found that preschoolers defined being kind in terms of *absolute behaviors*. For example, a person is kind if she shares her cookies with another child. A person is kind if he helps another person across the street.

3. However, school-aged children defined kindness in more *relative* terms. For example, a person is kind if her playmate doesn’t have any cookies and is hungry, and she shares her cookies. A person is kind if another person wants to cross the street and can’t walk on her own, and the first person helps her across the street.

4. The older children seemed to take account of a need or deficit (State A) that needed amending and a transformation that could be performed that would bring about a better condition or end to the deficit.
(State B). In other words, giving someone who had too many cookies already or helping a person across the street who did not want to go were not considered acts of kindness. One had to take account of the full transformations, of meeting a need.

D. In conclusion, concrete-operational thinking makes possible many academic and cognitive accomplishments but also higher levels of adaptation in social situations, as well.

Supplementary Reading:
Inhelder and Piaget, *The Early Growth of Logic in the Child.*

Questions to Consider:
1. Do you think there is any connection between the cognitive shifts that children make between about five and seven years of age and the fact that most cultures that have formal education begin children’s schooling at this age period?
2. Can you think of practical examples of children’s confusions about the world that are based on their lack of ability to consider two viewpoints at the same time or their lack of ability to consider how a mental transformation can also be reversed?
Lecture Twenty-One
Piaget's Last Stage

Scope: This lecture begins with a description of Piaget’s stage 4, the formal-operational period, why it is called formal, and the ways in which it is a time of “idealistic” thinking. The lecture then gives examples of formal-operational logic, abstraction, and hypothetical thinking. The lecture concludes with a discussion of the problems with Piaget’s theory and revisions that have been made. An example of the revisions can be given by using Robert Siegler’s theory for how variation across tasks and domains is the rule in development and problem-solving strategies compete with each other for dominance.

Outline

I. In the last lecture, we left the child with the ability to reason logically and use multiple representations, but one major shortcoming in his concrete-operational level of development was that he could not deal with problems that were highly abstract and hypothetical. At about the time of puberty, children show a shift to a more abstract and theoretical level of thinking.

A. Piaget called this transition (his fourth and final stage) the formal-operational period. What did he mean by using that title?
   1. Pre-adolescents and adolescents still use mental operations to solve problems, but because of their experience with numerous specific problems and instances, they can now extract more general and all-encompassing strategies and concepts.
   2. Abstract thinking can be thought of as an extraction of general laws and principles from a set of specific instances of concrete problems in the real world. This level of abstraction is then no longer tied to any one concrete instance.
   3. Piaget called these operations formal to indicate that individuals could now deal with hypotheses or propositions in the abstract form of the proposition, regardless of the empirical evidence for the truth or falsehood of the proposition or the existence of any actual concrete instances. Think of the form in formal.
   4. Because of this freedom from the concrete, adolescents could think about and apply strategies to hypothetical situations.
   5. Piaget argued that adolescents became idealistic in their thinking. What he meant was that they could now deal with abstract ideas, rather than just concrete realities or representations of concrete realities. Think of the idea in idealistic.

B. Some concrete examples make these abstract ideas clearer.
   1. Studies have been done of propositional logic and the rules that one uses to think logically using syllogisms. One basic abstract form is: “If p, then q.” This form means, “If p exists, then q also exists.” To determine whether this proposition is false, one need only find a case in which p exists, but q does not exist. If the proposition is correct, then one logical corollary is “If q does not exist, then we know that p also does not exist.” However, if q does exist, then we can’t know for sure whether p exists or not. If the first proposition is correct, “If p, then q,” we can’t have p without also having q, but we could have q without p.
   2. For some who have experience with this kind of logic, this formal reasoning is easy, but for most of us, it is difficult to keep it straight. It is much easier, even for adults, to deal with concrete examples, rather than the abstract forms. Nevertheless, as adults with formal-operational thinking, we can learn to deal with these abstractions.
   3. Let’s switch to some concrete instances of “if p, then q.” “If a person studies hard, then he will get good grades.” This is a concrete instance of “if p (studies hard), then q (gets good grades).” To disprove this proposition, I must find someone who studies hard (p) and, nevertheless, doesn’t get good grades (not q). However, if the proposition is correct, then if I find someone who studies hard, I will know that he gets good grades. I will also know that if I find someone who does not get good grades, he did not study hard. But if I find someone who gets good grades, do I know he studies hard? The answer is no because someone might get good grades for other reasons and still not study hard. We can’t know for sure.
4. In this example, we have simply taken the general, abstract forms and applied them to a concrete instance.

5. Here is another concrete example: I said to an eight-year-old boy, “All men have hairy legs. I met a man. Did he have hairy legs?” The boy correctly answered, “Yes, because you said that all men have hairy legs.” I then said, “I met a person with hairy legs. Was that person a man?” The boy again correctly answered, “Maybe not because some women might have hairy legs also.” I then said to him, “All women have blue stripes down their backs. I saw a person with a blue-striped back. Was the person a man or a woman?” This time the boy said, “No one, because people don’t have blue stripes down their backs.”

6. The concrete-operational boy could handle some of the logic of these propositions when the instances were concrete and fit with his experiences of reality, but he couldn’t handle hypothetical, non-realistic instances.

7. That ability is precisely what comes with formal-operational thinking. Mastery of this level of thinking at the end of adolescence or in young adulthood allows the person to deal with highly abstract forms of logic, forms found in mathematics, philosophy, science, hypothesis testing, and many other fields.

C. Another aspect of formal-operational thinking is the emerging ability to perform operations on operations.

1. A perfect example of these types of operations comes from mathematics. The child has already learned to perform simple mathematical operations, such as addition and subtraction. She may have even learned to deal with some simple abstract forms, for example, using variables, such as a and b, to stand for fixed numbers (e.g., \( a + 24 = b \)).

2. However, truly formal-operational thinking is shown when one can perform one operation on another (or overlay one system onto another) as in: \( 2(a(b/c + 24/c)) = 100 \). Examples of formal systems of mathematics that require formal-operational thinking are algebra and calculus.

3. In this case, people develop by building on what they already have mastered and combining skills.

4. Here are some philosophical and theoretical questions that formal-operational adolescents and young adults may now be able to consider: If evolution functions by genetic selectivity, then how might this account for the evolution of behaviors and personality traits? What if there really isn’t a God? What if Hitler had never lived? What if I lived on an isolated island with 1,000 inhabitants and had to start a new society?

5. Other abstract and philosophical questions that many teenagers apparently grapple with come from Erikson’s fifth stage of identity development. What is there about me that forms my true identity, and what do I want to commit to in my life? It seems to be no accident that this level in Erikson’s theory would match Piaget’s level of formal operations.

II. Despite the value of Piaget’s theory in changing our view of the sequence of development and generating much research, many developmentalists have pointed out weaknesses in his theory.

A. First, many argue that his basic process, which includes schemes, assimilation, accommodation, and equilibration, is merely metaphorical. It is impossible ever to disprove it.

1. However, this criticism can apply to many of the concepts of all the major theorists. To develop a general and major theory, one must go beyond the specific and concrete data.

2. Indeed, metaphors (such as the processes of assimilation and accommodation) have helped many researchers organize their thinking about development and guide their research.

B. Second, many recent studies have shown that Piaget often misjudged the ages at which children would show evidence for understanding a particular concept.

1. When researchers simplified the tasks, they found understanding of a particular concept in children at much younger ages than Piaget reported.

2. If one takes the view that development is not all or none but comes about gradually in steps over time, then these disagreements over age are not a serious criticism of the theory.

3. Many forget that Piaget stressed the invariant order of development, not the specific ages at which particular skills appear.

C. Third, many point out that with Piaget’s focus on the development of logical thought, particularly in mathematics and scientific thinking, he ignored many other aspects of development.
1. Specifically, Piaget said very little about the role and influence of social relationships and emotions in cognitive development. He also ignored development in several domains, particularly in the creative arts.

2. Others have expanded Piaget’s concepts to account for some of these gaps.

3. And, once again, this criticism could be made of any developmental theory. No theorist has claimed to account for development in every domain or for every influential factor.

D. The fourth criticism is perhaps the most serious. Much recent research has now brought into serious question the universality of Piaget’s stages, not so much in terms of cultural universality, but in terms of generality across all domains and contexts of development.

1. In Piaget’s conception, once a person has consolidated the skills and understanding of a particular stage, that person will be functioning cognitively in that stage regardless of the particular cognitive problem or domain of knowledge.

2. For example, in Piaget’s view, if a child has reached the period of concrete-operational thinking, then she can think in this manner when dealing with mathematics, science, social relationships, conservation problems, seriation problems, classifications, perspective taking, and so forth. She will be in the concrete-operational period.

3. It is true that Piaget recognized asynchronies (or lags) in level of development of understanding from one area to another or on one task versus another, but he thought these cases were minor and were the exceptions. Nowadays, these asynchronies are considered the rule in development.

4. Most current researchers can discuss how a child might use concrete-operational thinking on a particular problem, while the same child might use pre-operational thinking on another task and formal-operational thinking on a third task. Therefore, most researchers today do not think of a child being in only one stage.

5. Rather than having general stages, we now have sequences in the development of cognitive skills that are influenced by the child’s level and experience in each specific domain and by the demands of each specific context and task.

III. The recent research of Robert Siegler illustrates some of the new conceptualizations of cognitive development that have modified and gone beyond Piaget’s theory.

A. Unlike Piaget’s model of general shifts in understanding at each stage, Siegler theorized that there is extreme variability at all times and all levels.

1. At any given age a child typically has several strategies or actions that she can use, and she will shift from one to another on different tasks.

2. Often, a new strategy or level of thinking happens once, then doesn’t appear again for some time. The child may still use various strategies and simply add a new strategy to her repertoire.

3. Over time, however, more efficient and adaptive strategies may win out and be used predominantly until a new and better strategy is discovered.

4. Think of each strategy as having its own course of development over time. At any given time or age, a person may have several strategies available to use.

5. One should think of development not in terms of discrete stages but in terms of overlapping waves of skill or strategy development.

B. An example from Siegler’s research comes from mathematics and concerns a child’s initial development at counting and adding.

1. When children must add two numbers together, they usually begin by counting all the numbers, often using their fingers. For example, if they must add 2 + 6, they will count, “1, 2,” then “3, 4, 5, 6, 7, 8.” We call this strategy the count-all strategy.

2. With time, children often discover a new strategy that is a much more efficient way of counting. They begin with the highest number, then count up the other numbers from there. For example, if they must add 2 + 6, they will start with “6,” then count, “7, 8.” This strategy is often called the min strategy.

3. Only with further experience will children shift to an even more efficient strategy, in which they memorize the sum for two numbers and quickly pull the sum out of memory. For example, they will now see 2 + 6 and say, based on their memory of the sum, “8.” This is the memorization strategy.

4. In detailed observations of children over time, Siegler once again found that they showed great variability in which strategy they would use. Although the order of development was from count all to
min to memorization, they would usually use all the strategies they had in their repertoire. Only gradually over time did the min strategy first win out over the count-all strategy and the memorization strategy win out over the min strategy.

5. Why would children ever return to using a less efficient strategy once they had discovered a better one? Siegler argues that we consolidate our mastery of new strategies or skills only gradually and with experience. We often fall back on older and more automatic strategies when we are tired or under stress or have too many simultaneous cognitive demands placed on us.

6. With repeated use and mastery, a strategy becomes more automatic and requires less concentration and energy to use.

Supplementary Reading:
Piaget and Inhelder, The Psychology of the Child, chapter 5 and conclusion.
Siegler, Emerging Minds: The Process of Change in Children’s Thinking.

Questions to Consider:
1. Despite the recent views of variation in development based on context, do you think there is any validity to Piaget’s view of his stages being universal across virtually all individuals and across practically all domains of development?

2. Can you see examples in your life of Siegler’s overlapping waves of skill development, in which a strategy for dealing with a problem eventually comes to dominate?
Lecture Twenty-Two

Vygotsky’s Cognitive-Mediation Theory

Scope: This lecture introduces the sixth and last major theory: Lev Vygotsky’s cognitive-mediation theory. It begins with a description of Vygotsky’s history. Although he died in 1934 and was practically unknown to Western thinkers until recently, his theoretical influence on development and education is constantly increasing. As a Russian theorist, he believed that Marxism, with its focus on the value of tools and society, could provide a foundation for a better theory of psychological development. The lecture compares the metaphor for the developing child based on Piaget’s theory—the child as lone scientist—with the metaphor for the developing child based on Vygotsky’s theory—the child as apprentice. The lecture then describes how psychological tools, such as language, come from other people but are made a part of one’s own thinking. Thus, development occurs when we incorporate tools for thinking from our society.

Outline

I. One of the criticisms of Piaget’s theory that we noted in the last lecture was that he took virtually no account of the influence of society and social interactions in explaining the processes of development. In contrast, Vygotsky’s cognitive-mediation theory focuses primarily on how social interactions influence cognitive development. Although all of Vygotsky’s work was completed before social learning theory and the cognitive revolution came about, his theory is currently increasing in influence on developmental researchers and educators.

II. To understand why we have had this “sleeper effect,” we must understand Vygotsky’s history.

A. Lev S. Vygotsky was born in 1896 (the same year that Piaget was born) near Minsk, Russia, and died in Russia in 1934 at the relatively young age of thirty-seven. He had tuberculosis and was quite sick for a good share of his life.
   1. Vygotsky was born into a middle-class Jewish family. Like Piaget, he was precocious and intellectual at a young age. In particular, he read Western philosophy.
   2. Because of the discrimination against Jews in Russia at the time and the quota system limiting the number of Jewish college students, Vygotsky thought he would not be able to attend college, but on a lottery, he was able to attend Moscow University and graduated in 1917.
   3. Vygotsky thought that the Bolshevik Revolution would put an end to discrimination against Jews in Russia, and he fully welcomed it. He was strongly influenced by Hegel’s and Marx’s philosophies, which stressed the importance of society and the value of work in helping humans rise to something better.
   4. He believed that the Marxist view, in which technology and tools transform society and help humans to evolve socially, could be the foundation for a new Marxist theory of human development that would better account for human functioning than what he had read up until that time.
   5. Part of this social view of development was a dialectic view of change. In dialectic reasoning, one begins with a thesis (or argument). An antithesis is presented to challenge the thesis, and by the combination of thesis and antithesis, a person constructs a synthesis, a new level of argument or understanding. Indeed, this combination has already been seen in complementary and often conflicting processes found in other theories (such as Erikson’s constant interplay between seeking connectedness and independence and Piaget’s interplay between assimilation and accommodation).
   6. For Vygotsky, the dialectic was between the individual and others. In synthesis, they combined to move development to higher levels of thinking and functioning. These principles became the foundation for Vygotsky’s theory.

B. Once Vygotsky settled on psychology as his primary field of interest, he worked as an academic in Moscow.
   1. His first publication was on the psychology of art. He also wrote about language development, intelligence testing, and principles of education.
   2. He knew he was sickly and probably would not live to old age, and he worked feverishly as if he had a short time to complete his life’s work.
3. Unfortunately, even though he may have been the supreme Marxist theorist on human development, at
the end of his life, his work was banned in the Soviet Union. Although the reasons aren’t clear and
could have included the fact that he was Jewish, it seems that his greatest “sin” was that he integrated
so much Western philosophy and so many Western ideas into his theories.
4. Because of the ban, Vygotsky was able to publish little work in his own lifetime. Most of what we
have comes from posthumous publications and the writings of his students.
5. We had virtually none of Vygotsky’s work in English until the 1970s. With the collapse of the Soviet
Union, there has been an increased interchange between American and Russian scholars that has
provided even more details and insight into Vygotsky’s thinking.

III. Vygotsky’s theory provides a good comparison with, and complement to, Piaget’s theory.
A. In many ways, a metaphor for Piaget’s conceptualization is the child as a lone scientist. The child, on his
own and through his own actions, discovers how the world works and applies his reasoning to various
problems and challenges presented by the world.
B. In contrast, a metaphor for Vygotsky’s conceptualization is the child as apprentice. The child actively
learns skills and symbolic processing by his interactions with an adult mentor and incorporates what the
adult provides to him in knowledge and cognitive tools.
1. In traditional learning theory and social learning theory, society is thought to influence and shape the
child, but in Vygotsky’s theory, the child is a part of society and a collaborator in his learning with
adult mentors. He isn’t simply a passive recipient of conditioning and socialization.
2. In reality, both Piaget’s and Vygotsky’s theories account for the way children develop. Thus, we might
consider them as important complements of each other.

IV. Why is Vygotsky’s theory entitled cognitive mediation?
A. First, Vygotsky believed we share lower mental functions with other animals. What differentiates us is that
we go beyond other animals because of the mental or psychological tools we acquire to help us think.
(Remember, based on Marxist philosophy, Vygotsky believed that tools mediated progression.)
1. The way we acquire psychological tools is from our culture (and the previous learning of our species).
2. As with learning theory, at first, outside stimuli elicit responses from an individual. However, when
we acquire a psychological tool, such as language, the tool mediates between the outside stimuli and
the responses. Our psychological tools create intentionality, comparisons, and higher-order planning.
Thus, we are no longer at the mercy of outside stimuli, as are lower animals.
3. Culture is handed down to us through our society, which is handed down to us through adults in our
society (such as our parents). What was in the culture is incorporated into our own cognitive processes
as the psychological tools that we use. Vygotsky said, “what was inter-mental becomes intra-mental.”
4. For Vygotsky, we can’t function on an adult level without the culture of which we are a part bringing
us along and providing what is necessary. This conceptualization acknowledges a deeper level of
social interaction than the simple social influence and conditioning envisioned by learning theory. As
Vygotsky once said, “A colt is already a horse; a human baby is only a candidate to become a human
being.”

B. What are these psychological tools that came from the culture and are so necessary for our development of
higher cognitive processes?
1. The tools are symbolic.
2. The same symbol systems we have already encountered in our discussion of Piaget are our primary
tools for thinking: language, symbolic play, art, writing.
3. This description may sound similar to Piaget’s description, except for two aspects that Vygotsky
emphasized. First, the symbol systems come to us from others rather than from within ourselves.
Second, the symbol systems are not just used in our thinking but completely reorganize our thinking.

C. Language is the most important psychological tool. Vygotsky described the process by which children
internalize language as a personal tool.
1. First, others in the culture provide the child with a particular language and set of symbols.
2. As the child masters the use of the language, she begins using language not just to communicate to
others but as egocentric speech. She talks to herself, usually out loud.
3. Then, with more experience, the child is able to eliminate the overt speech and internalize her egocentric speech. Vygotsky called this *inner speech*. The child is still talking to herself but only mentally.

4. Eventually, this inner speech becomes the mediating tool for the child’s thinking. She begins using automatic and truncated speech to think, to plan, to direct herself. It is no longer speech for communication; it is now a personal psychological tool that changes all her thought processes. It came from others, but it now is part of the child’s mind.

5. Although language is the primary tool, other symbolic tools become internalized as well (such as mathematical thinking and visual thinking).

6. We can point to many examples in both children and adults of egocentric speech. In one example, a preschooler’s mother told him to go to his room and put on his pants and shirt. From the other room, the adults heard the child say, “Label in the back, label in the back.” They realized that the child was repeating the instructions for putting on shirts and pants that his mother had provided to him. He was giving himself directions.

7. In another example, a person is driving and attempting to follow directions to someone’s house. She realizes that she is thinking to herself, “Go two lights, then turn left. Look for the red house.” When we consider how we think, we often use these symbolic devices (derived from inner speech) to guide our thinking, planning, and actions.

V. Vygotsky also believed that society, through adults, helps children regulate themselves at first until they have internalized the mediators so that they can regulate themselves without adult aid.

A. This process of internalization from others does not carry the connotations of conditioning or behavior modification being effective whether the child cooperates or not. In Vygotsky’s conceptualization, children mentally cooperate in this joint regulation.

B. Piaget also had a view—albeit a different one—of egocentric speech.
   1. For Piaget, a child in egocentric speech exhibited a lack of perspective taking.
   2. Egocentric speech, in Piaget’s view, is when you talk about something to another person without making sense to that other person.
   3. In Vygotsky’s view, egocentric speech is talking to yourself.

C. Vygotsky and Piaget also held differing views about pretend play.
   1. Piaget saw pretend play (symbolic play) as an immature process and predominantly assimilation that distorted reality. The value of pretend play is to give the child a way to “act out” situations she doesn’t understand.
   2. Vygotsky viewed pretend play as the area where a child performs at the best level of his abilities. Play is a safe place to try things.

D. Our next lecture will discuss this adult-child co-construction process and how it influences current educational decisions.

**Supplementary Reading:**


Kozulin, *Vygotsky’s Psychology: A Biography of Ideas*. (This recent book provides an overview and biography of Vygotsky by a Russian psychologist who has been familiar with his work and its influence in Russia.)


**Questions to Consider:**

1. Do you believe that your thinking is primarily controlled by symbolic skills that you originally acquired from others (in particular, language)? Does this approach adequately account for most of our thinking?

2. In your mind, how would you combine Piaget’s and Vygotsky’s theories to provide a more valid account of real-life development?
Lecture Twenty-Three

Vygotsky's Zone of Proximal Development

Scope: This lecture discusses Vygotsky’s important argument that a person’s level of development is not a point on a developmental course but a range or zone. This zone of proximal development shifts over time. The lecture then discusses the concept of scaffolding in the zone, which is provided by other people. Examples of scaffolding are given: how an adult and a child co-construct the child’s narrative memory and how pretend play helps bring about development at the next highest level. The lecture concludes with a discussion of how this important concept applies to education.

Outline

I. One of the most important contributions of Vygotsky’s theory has been the concept of the zone of proximal development.
   A. In the previous developmental theories we have studied, one assumption is that children progress along a given course of development toward some end point of mature and adaptive functioning. This is most easily seen in stage theories, such as those of Freud, Erikson, and Piaget. Thus, at any given time, a child is thought to be at some distinct point along the course of development.
   B. For Vygotsky, there was no single point of development. Instead, an individual’s level of development varies across some fuzzy range along the course of development, some zone.
      1. According to Vygotsky, the zone that covers an individual’s current developmental level stretches from the level at which the child has already completely mastered lower level skills and knowledge to the level at the upper limit of the individual’s capacity, where the child can use a skill or know something only in the best of circumstances.
      2. The lower level of the zone is called the actual level of development; everything below this level has already been mastered (the past). The upper level of the zone is called the potential level of development; everything above this level (or outside this level) is as yet unachievable by the person and beyond his or her limits (the future). Everything between these two levels is in the zone and is potentially achievable by the person (the present).
      3. This area is called the zone of proximal development because this range covers the problems, challenges, and tasks that are proximal, or next to, the person’s last fully developed level.
   C. Why did Vygotsky propose a zone rather than a distinct point in the course of development?
      1. As Vygotsky observed, whether or not a person can perform a task or successfully solve a problem depends on many environmental factors. It depends on whether a problem is worded clearly, whether the problem or task is a simple version or a complicated version, whether someone else is helping the person, and whether aids or cues are given.
      2. Some tasks are not very challenging because they are highly similar to what the person already knows. Other tasks are more challenging because they are complicated and require the person to perform without any help.
      3. As an example, some fathers and sons were building birdhouses together. For the youngest boys, the fathers read the directions, explained the use of the tools, did most of the measuring, sawed the wood pieces, nailed the pieces together, and did much of the painting. For boys a little more experienced, the fathers told the children what to do at each step, sawed the wood, and let the boys do the rest. For the oldest boys, the fathers simply watched and gave suggestions from time to time. Each instance appeared at a different level in a child’s zone of developing construction skills.
      4. In another example, a kindergarten girl was learning to read with her mother. At first, they chose books that had large pictures and only one or two words on each page. The words were simple and were often repeated. The mother said the word first, and the child would then repeat it. Later, after the child had mastered the easiest books, the mother would have the girl guess the word, then try to sound it out, but the mother would help with part of the sound. After more time, they chose books with more complicated sentences, and the mother let the girl do more sounding out and reading without the mother’s intervention. Eventually, they chose books with mostly writing and very few pictures. The girl either recognized or sounded out most of the words without the mother’s help. Finally, the girl...
read books without the mother even being present. Each instance showed a different level in the child’s zone of reading development.

5. In each of these examples, at what point would one be able to say, “The child has now developed that skill [that is, making a birdhouse or being able to read]”? There is no single point at which the child had developed the skill but didn’t have it before. Thus, Vygotsky argued for calling the entire zone the individual’s level of development rather than one single point.

II. How does a person progress through his or her zone of proximal development?

A. First, as the person develops new skills at a high level of mastery, both her actual level and her potential level increase. In other words, with mastery, the entire zone moves along the developmental course. The zone is dynamic and never static.

B. Second, Vygotsky never meant that a child had only one universal zone of development that spanned all tasks and domains. Each different domain (such as wood construction or reading) was likely to have its own dynamic zone.

C. Third, one would expect to find individual differences in a person’s zones of development.
   1. In a given domain, one child’s zone might be farther along than another child’s zone.
   2. One child might progress faster through the zone than another child does.
   3. The span of the zone from the actual to the potential level might be wider for one child than for another.

D. What was the mechanism of development?
   1. Because of the instructions, cues, and assistance given by someone else, a child is able to handle more challenging problems and eventually learns to handle the problems without the help of others. Once again, society and adults cooperate with the child in providing tools for development.
   2. As mentioned in the last lecture, this help from someone else is then internalized and becomes part of the child’s own repertoire.

E. Jerome Bruner coined the term scaffolding to refer to this cooperative help from others and the environment
   1. Physical scaffolding supports a building project at the level where current building is going on. As the building progresses, the scaffolding needs to be placed higher to keep up with the level of construction on the building. It is no longer required for the levels of the building that are already in place. This is the metaphor for all kinds of developmental tasks.
   2. Adults add scaffolding at the edge of development but remove it when some levels have already been mastered. In addition, scaffolding makes no sense if placed above the level where the developmental work is occurring.
   3. In the construction example given above, the fathers, in effect, provided scaffolding to their sons’ construction of birdhouses. They systematically removed the scaffolding when no longer needed (that is, for tasks that the children could do on their own). In the reading example, the mother provided scaffolding to her daughter’s reading by helping and giving cues right at the edge of the daughter’s abilities. She also removed help as the daughter could do tasks on her own, and she added higher-level tasks, such as books with more words and fewer pictures, which again, required more help from the mother.
   4. One can see that the process of scaffolding is a dynamic one that constantly shifts levels.
   5. Scaffolding is not effective if the adults provide help well beyond the child’s zone of proximal development (at levels not yet available for mastery) or below the child’s zone of proximal development (at levels that the child has already mastered).

III. Here are two more examples of the scaffolding process in a child’s zone of development.

A. Robyn Fivush and others completed research on the co-construction of narrative memory in children.
   1. In observations of children being asked to tell about something that happened, the parent and the child usually co-construct the narrative account. In other words, the parent provides cues as to what happened and helps the child recall events. These events then become more permanently encoded in the child’s memory.
   2. Within this process, it is impossible to say what the child remembers and what comes from the parent.
3. However, young children would not remember most sequences of events without the initial aid of the parent recalling the event with them.

B. Vygotsky believed that during social pretend play (that is, symbolic play that children carry out with someone else), the play context provides "scaffolding" for the child's development through her zone.
   1. Play first requires that a child concentrate more on the meanings of what she is doing (the referents) than on the actual objects or actions that are used. Pretend play helps children distance the symbol from the referent.
   2. When the child pretends to be in another role carrying out actions appropriate to that role, she is performing actions that are often well above her zone in real life. For example, when a girl pretends to be a mother and take care of a sick baby, she is trying out responsibilities and stretching herself beyond what she really can do.
   3. Other players also push a child to stay within the "rules" of the play game and act according to the roles and plot. For example, a child may be frightened, but if she is pretending to be a superhero, she must act at not being frightened. Thus, social pretend play teaches children emotional control and discipline at the edge of their abilities.
   4. For all these reasons, play, according to Vygotsky, demonstrates the leading edge of development and creates a zone of proximal development for the child.
   5. In contrast, most other theorists, including Freud, Erikson, and Piaget, looked at play as a reflection of what the child already knew or believed, not the cutting edge of her development.

IV. The concept of a zone of proximal development, with its attendant scaffolding from adults and society, demonstrates a different conception of the relation between learning and development for Vygotsky than for other theorists.
   A. For learning theorists (and social learning theorists), learning is equated with development. Because differences in potential based on age are not considered, the process of learning new skills or knowledge and development are virtually indistinguishable. The focus is on the environment influencing the child.
   B. For Piaget, development comes from within and comes before learning. It makes possible learning of individual skills and knowledge. The focus is on the child's normal course and rate of development when he is left on his own.
   C. For Vygotsky, learning happens as a person masters new skills, aided by other people at the advanced edge of his zone of development. Learning comes first and brings about development. The focus is on cooperative scaffolding in learning.

V. The ideas of a zone of proximal development, scaffolding, and the recent research on co-construction of various skills have had a large impact on educators.
   A. Teachers use the idea of adjusting instruction to the students' current zone of proximal development.
      1. This approach to education requires that teachers focus on individual student levels to determine what will be challenging and accessible to students.
      2. A good teacher is someone who can determine the appropriate help that a student needs to gain mastery of a task (such as the number of examples and the amount of practice). A good teacher must also know when to withdraw help and scaffolding so as not to bore students.
      3. Good teaching usually means that the teacher must begin with what the student already knows but ensure that new and challenging information is also presented.
   B. This approach does have limitations and weaknesses, however.
      1. Like other theoretical conceptions we have discussed, the zone of proximal development, as well as the idea of scaffolding, are metaphors that are not easily tested or disproved. Their value seems to be in the way they can organize and guide a teacher's or researcher's thinking, but they are rather imprecise.
      2. In applying these concepts to classrooms, it is logistically difficult to see how a teacher could possibly assess any one child's actual levels of development across several domains, let alone do it for the entire classroom. Some compromises to individual instruction are often required.

VI. In conclusion, the main theoretical constructs and the emphasis provided by Vygotsky seem to be a healthy addition to other theories, but the ideas may be limited in their applicability. The most important results so far...
have been in conceptualizations of education and teaching and in a new emphasis on the context of development, especially across cultures.

**Supplementary Reading:**

**Questions to Consider:**
1. What examples of scaffolding can you think of in the learning and development of adults? Do the concepts of a zone of proximal development and scaffolding still apply to adults?
2. How do you think Piaget and Vygotsky would differ in their conceptualizations of intelligence? Do you think that, in terms of Vygotsky’s theory, intelligence might mean that a person can progress through the zone of development at a faster rate than average and need fewer cues or aids and less scaffolding to do so?
Lecture Twenty-Four
Conclusions—Our Nature and Development

Scope: This concluding lecture begins with the well-known metaphor of the blind men and the elephant and uses the metaphor to discuss how different theories might give us a partial understanding of human nature and development or a false understanding. The lecture discusses whether we can integrate these major theories. An example of a comparison and integration of three theories is described: the case of gender-role development from Freudian, social learning, and cognitive-developmental theories. The lecture ends with a reprise: Where does the student now stand regarding major issues of human development?

Outline

I. A well-known metaphor is appropriate to use as a model for how we might compare and integrate the six theories that we have discussed in this course.
   A. In this story, there were six blind men who approached an elephant to discover what kind of creature an elephant was.
      1. The first man happened to fall against the elephant’s side. He declared, “The elephant is like a wall.”
      2. The second man ran into the tusk and, after feeling it, explained, “The elephant is like a spear.”
      3. The third man grabbed onto the trunk and said, “The elephant is like a snake.”
      4. The fourth man held onto the elephant’s leg and exclaimed, “The elephant is like a tree.”
      5. The fifth man chanced to touch the elephant’s ear and said, “The elephant is like a fan.”
      6. The sixth man grasped the elephant’s swinging tail and said, “The elephant is like a rope.”
      7. Because of the personal experiences of each man, each came up with a different conception. Although all were partly right, they were all wrong.
   B. Like the blind men and the elephant, does each of our six theories give us a partial understanding of human nature and development or, worse, a false and biased understanding?
      1. The answer probably depends on what one does with each of these theories. One can use one theory only with the belief that that particular theory is the best explanation for human development, or one can realize that each theorist was biased by personal experiences and focus and dealt only with a piece of the whole picture.
      2. Thus, each theory must be used with a view of the context in which it was developed and the purpose for which it was developed.
   C. Freud’s theory dealt primarily with unconscious conflicts and emotionally charged issues that formed one’s personality.
      1. He contributed an awareness of the importance of the unconscious and talked about multiple, often unconscious, motivations.
      2. His approach was biased by trying to explain everything through sexual drives.
   D. Erikson’s theory dealt primarily with the development of identity and the joint issue of connectedness and independence.
      1. He contributed a good guide to the issues people face throughout their life spans and the sequence of focus on these issues.
      2. He was biased by his own struggles with identity confusion as he grew up and his attempts to reconcile his theory with Freud’s stages.
   E. Bowlby and Ainsworth’s theory dealt primarily with the development of close relationships and their functions.
      1. Their theory has generated many new findings about how attachments form and how relationships affect subsequent behaviors.
      2. Bowlby, however, saw development as being mainly instinctual; Ainsworth saw development as tied to whether parents were good or bad or consistent.
   F. Bandura’s theory dealt primarily with how we learn through observation and how our self-efficacy influences our development.

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1. His theory has generated many applications, for example, in treating phobias or dealing with aggression in youth.
2. He did not focus much on the importance of childhood or on the developmental processes that occur at different ages.

G. Piaget’s theory dealt primarily with how we change our cognitive skills over time and how we develop intelligent thought processes.
1. His theory generated thousands of studies, probably more than any other theory, which have led to a wealth of knowledge about how children develop.
2. He seemed to be biased toward logical mathematical operations, thus shortchanging more social and emotional domains. His stages may also have been too rigid.

H. Vygotsky’s theory dealt primarily with how we interact with adults to incorporate important symbolic tools from them and how adults aid in our development.
1. He influenced the way we look at cooperation and how we approach education.
2. His theory was somewhat narrow in what it covered and lacked precision in its processes.

I. We should be able to combine and integrate the theories to organize our thinking regarding different aspects and domains of development.
1. For example, we can use Erikson’s theory to talk about major issues that we face, combined with Bowlby’s and Ainsworth’s theory to discuss the process whereby trust and connectedness develop as a foundation for autonomy and independence.
2. As another example, we can use Piaget’s theory to provide a structure for understanding how we approach new information from the environment and the general sequence of shifts we make in our thinking, combined with Vygotsky’s theory to add insight into how others help us gradually become more independent in problem solving.
3. However, there are also some contradictions among theories and some aspects that are based on opposing worldviews. It is probably impossible to integrate everything, just as it is impossible to believe that any one theory is completely correct.

II. One final example, the explanation of gender-role development, provides a good comparison of three of the theories.

A. During the preschool and early elementary school years, children develop a firm conception of what is masculine and feminine behavior and how the role of each sex functions and differs from the other sex’s role.
1. In the field of development, sex refers to the actual physical differences between male and female. Gender refers to the attendant roles, behaviors, and attributes that go along with any particular sex.
2. These conceptions are called gender roles and are believed to originate not only in our biology but also in the beliefs of our culture.
3. Not only do children develop an understanding of gender roles, but they also incorporate them into their own identities.
4. Three of our theories have attempted to explain how this development occurs and what the motivation is for children to develop these strong gender conceptions. The theories are Freudian psychodynamic theory, Bandura’s social learning theory, and Piaget’s cognitive-developmental theory as interpreted and used by Lawrence Kohlberg.
5. Each sequence below is presented as if a preschool boy can state what he is thinking and feeling, even his unconscious thoughts and desires.

B. According to psychoanalytic theory, the following sequence occurs. It is based on one’s Oedipal desires and their resolution. The development of gender-role identity is initiated from within the child based on his own desires.
1. I want my mother as a love object.
2. To get her, I must be like my father.
3. Therefore, I want to be a male like my father and do masculine things.

C. According to social learning theory, the following sequence occurs. It is based on one’s expectancies and beliefs about reinforcement contingencies. The development of gender-role identity is initiated from the environment socializing the child.
1. I want reinforcement.
2. I have observed others and realize that I get reinforcement when I do masculine things.
3. Therefore, I want to be a male and act like males act.

D. According to cognitive-developmental theory, the following sequence occurs. It is based on one’s categorization of things in the world, including social relationships. The development of gender-role identity is initiated from within oneself; the child seeks it out.
1. I have discovered that I am a male and will stay a male.
2. I want to be a competent male.
3. Therefore, when I do masculine things, I am competent.

E. Empirical evidence does not provide much support for the psychoanalytic explanation. However, there has been much empirical evidence for both the social learning and the cognitive-developmental accounts.
1. The social learning account focuses on what comes from the environment.
2. The cognitive-developmental account focuses on what comes from within and how we socialize ourselves. It assumes that a child needs a prerequisite understanding of his own sex and identity before gender roles can be learned.
3. Most researchers today see some combination of these two accounts as the best explanation.

III. As a final assessment, we will return to some questions we asked in the first lecture concerning where the students stand on some major issues of development. Students should see if they have had any changes in their thinking. Students should recognize certain themes in each question, themes that cannot be proven or disproved but which guide one’s theoretical leanings. (For each statement, choose the alternative that best matches your belief.)

A. Children are:
1. Creatures whose basically negative or selfish impulses must be controlled.
2. Neither inherently good nor inherently bad.
3. Creatures who are born with many positive and few negative tendencies.
4. This question addresses our conception of the basic nature of humans. The first alternative came from early conceptions but also matches Freud’s theory. The second alternative matches Locke’s philosophy and that of other theorists, such as Bandura. The third alternative matches Rousseau’s philosophy and that of Piaget’s theory.

B. People are basically:
1. Active beings who play a major role in determining their own abilities and traits.
2. Passive beings whose characteristics are molded by either environmental or biological factors.
3. This question addresses our basic worldview of an (active) organismic versus a (passive) mechanistic approach to human nature. The first alternative matches Piaget’s theory, and the second alternative matches Bandura’s theory.

C. When we compare the development of different individuals, we see:
1. Mainly similarities; people develop along universal paths and experience similar changes at similar ages.
2. Mainly differences; people undergo different sequences of changes and have widely different timetables of development.
3. This question again addresses the issue of an organismic approach that focuses on universal norms of development versus a mechanistic approach that focuses on individual differences. The first alternative matches Piaget’s theory, and the second alternative matches Bandura’s theory.

D. Biological influences and environmental influences are thought to contribute to development. Overall:
1. Biological factors contribute more than environmental factors.
2. Biological and environmental factors are equally important.
3. Environmental factors contribute more than biological factors.
4. This question addresses the relative influence of nature versus nurture. All theorists believe that both factors are important, but Bowlby’s theory focuses more on biology, and Bandura’s theory focuses more on environment.
IV. As a final question, can we apply these theories to development in adulthood and old age?
   
   A. Although most aspects of these six major theories dealt with development during childhood and adolescence, they each provide explanations for developmental processes and models that are part of our basic human nature. Thus, these processes and ideas should be found at all age levels.

   B. In the case of human development, we do indeed see a little child in the adult and the fully developed human adult in the little child.

Supplementary Reading:
Hwang, Lamb, and Sigel, eds., *Images of Childhood*. (This book of readings reveals some insightful differences in theoretical backgrounds as people view children differently in other cultures.)
Kagan, *Three Seductive Ideas*. (A foremost developmental psychologist questions some of the basic tenets that have provided foundations for some of our theories.)

Questions to Consider:
1. Using the criteria provided in the first lecture, how would you evaluate each of the six theories as to whether it makes a good theory? Of particular interest is the last criterion, “Is the theory self-satisfying?”
2. Where are the major gaps as you see them in explanations of development? Where might you want to see and expect to see new theories emerging?
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Piaget, Jean. *The Origins of Intelligence in Children*. New York: W.W. Norton, 1963 (originally published, 1952). One of the most influential books ever published about human development. The first book of a trilogy that offers a theoretical account of Piaget’s processes, with abundant detailed observations, primarily of his own three children; covers development from birth to the preschool years and lays out the sub-stages of the sensory-motor period. Again, keep in mind that Piaget’s writing is often dense and unclear, though rewarding.


———. *Play, Dreams and Imitation in Childhood*. New York: W.W. Norton, 1963. The third book in Piaget’s trilogy; originally entitled in French *The Development of the Symbol in the Young Child*. Discusses the transition to symbol use and provides an excellent discussion of the development of symbolic play and functions of play in childhood; purported to be the best translation of any of his trilogy.


in children’s cognitive development; written by one of the foremost current researchers and theorists in cognitive development.

Vygotsky, Lev S. *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press, 1978. A compilation of some of his writings on various topics but all related to his basic theory of development in a social context. Discusses the child’s incorporation of psychological tools from adults; also includes a description of the concept of a zone of proximal development and an excellent chapter on the value of symbolic play.
