

This information guide is designed to support the knowledge and understanding of child development, in particular the theories and theorists behind these. It details the seven most popular theorists and the research carried out by them to highlight the many fascinating ways in which children develop and learn.

Child development theories focus on explaining how children change and grow over the course of childhood. Such theories centre on various aspects of development including social, emotional and cognitive growth.

The study of human development is a rich and varied subject. We all have personal experience with development, but it is sometimes difficult to understand:

How and why people grow, learn, and act as they do. Why do children behave in certain ways?

Is their behaviour related to their age, family relationships, or individual temperament?

Developmental psychologists strive to answer such questions as well as to understand, explain, and predict behaviours that occur throughout the lifespan.

In order to understand human development, a number of different theories of child development have arisen to explain various aspects of human growth.

The guide covers the following theorists and details each of their theories:

1. Freud's Psychosexual Developmental Theory
2. Erikson's Psychosocial Developmental Theory
3. Piaget's Cognitive Developmental Theory
4. Bandura's Social Learning Theory
5. Vygotsky's Sociocultural Theory

Child Development Theories: A Background

Theories of development provide a framework for thinking about human growth and learning. But why do we study development? What can we learn from psychological theories of development? If you have ever wondered about what motivates human thought and behaviour, understanding these theories can provide useful insight into individuals and society.

Child development that occurs from birth to adulthood was largely ignored throughout much of human history.

Children were often viewed simply as small versions of adults and little attention was paid to the many advances in cognitive abilities, language usage, and physical growth that occur during childhood and adolescence.

Interest in the field of child development finally began to emerge early in the 20th century, but it tended to focus on abnormal behaviour.

Eventually, researchers became increasingly interested in other topics including typical child development as well as the influences on development.

Why is it important to study how children grow, learn and change? An understanding of child development is essential because it allows us to fully appreciate the cognitive, emotional, physical, social, and educational growth that children go through from birth and into early adulthood.

Some of the major theories of child development are known as grand theories; they attempt to describe every aspect of development, often using a stage approach. Others are known as mini-theories; they instead focus only on a fairly limited aspect of development such as cognitive or social growth.

The following are just a few of the many child development theories that have been proposed by theorists and researchers. More recent theories outline the developmental stages of children and identify the typical ages at which these growth milestones occur.

Freud's Psychosexual Developmental Theory

Psychoanalytic theory originated with the work of Sigmund Freud. Through his clinical work with patients suffering from mental illness, Freud came to believe that childhood experiences and unconscious desires influenced behaviour.



According to Freud, conflicts that occur during each of these stages can have a lifelong influence on personality and behaviour. Freud proposed one of the best-known grand theories of child development. According to Freud's psychosexual theory, child development occurs in a series of stages focused on different pleasure areas of the body. During each stage, the child encounters conflicts that play a significant role in the course of development.

His theory suggested that the energy of the libido was focused on different erogenous zones at specific stages. Failure to progress through a stage can result in a fixation at that point in development, which Freud believed could have an influence on adult behaviour.

So what happens as children complete each stage? And what might result if a child does poorly during a particular point in development? Successfully completing each stage leads to the development of a healthy adult personality. Failing to resolve the conflicts of a particular stage can result in fixations that can then have an influence on adult behaviour.

While some other child development theories suggest that personality continues to change and grow over the entire lifetime, Freud believed that it was early experiences that played the greatest role in shaping development. According to Freud, personality is largely set in stone by the age of five. Whilst being one of the theories well-known in psychology, it is also one of the most controversial.

So how exactly does this psychosexual theory work? Freud believed that personality developed through a series of childhood stages in which the pleasure-seeking energies of the id become focused on certain erogenous areas. This psychosexual energy, or libido, was described as the driving force behind behaviour.

Psychoanalytic theory suggested that personality is mostly established by the age of five. Early experiences play a large role in personality development and continue to influence behaviour later in life.

So what happens during each stage? What if a person fails to progress through a stage completely or favourably? If these psychosexual stages are completed successfully, a healthy personality is the result. If certain issues are not resolved at the appropriate stage, fixations can occur. A fixation is a persistent focus on an earlier psychosexual stage. Until this conflict is resolved, the individual will remain "stuck" in this stage. For example, a person who is fixated at the oral stage may be

over-dependent on others and may seek oral stimulation through smoking, drinking, or eating.

The Oral Stage – Age Range birth – 1 year

Erogenous Zone: Mouth

During the oral stage, the infant's primary source of interaction occurs through the mouth, so the rooting and sucking reflex is especially important. The mouth is vital for eating and the infant derives pleasure from oral stimulation through gratifying activities such as tasting and sucking. Because the infant is entirely dependent upon caretakers (who are responsible for feeding the child), the infant also develops a sense of trust and comfort through this oral stimulation.

The primary conflict at this stage is the weaning process--the child must become less dependent upon caretakers. If fixation occurs at this stage, Freud believed the individual would have issues with dependency or aggression. Oral fixation can result in problems with drinking, eating, smoking, or nail biting.

The Anal Stage - Age Range 1 to 3 Years

Erogenous Zone: Bowel and Bladder Control

During the anal stage, Freud believed that the primary focus of the libido was on controlling bladder and bowel movements. The major conflict at this stage is toilet training--the child has to learn to control his or her bodily needs. Developing this control leads to a sense of accomplishment and independence.

According to Freud, success at this stage is dependent upon the way in which parents approach toilet training. Parents who utilise praise and rewards for using the toilet at the appropriate time encourage positive outcomes and help children feel capable and productive. Freud believed that positive experiences during this stage served as the basis for people to become competent, productive, and creative adults.

However, not all parents provide the support and encouragement that children need during this stage. Some parents instead punish, ridicule or shame a child for accidents.

According to Freud, inappropriate parental responses can result in negative outcomes. If parents take an approach that is too lenient, Freud suggested that an anal-expulsive personality could develop in which the individual has a messy, wasteful, or destructive personality. If parents are too strict or begin toilet training too early, Freud believed that an anal-retentive personality develops in which the individual is stringent, orderly, rigid, and obsessive.

The Phallic Stage – Age Range 3 to 6 years

Erogenous Zone: Genitals

During the phallic stage, the primary focus of the libido is on the genitals. At this age, children also begin to discover the differences between males and females.

Freud also believed that boys begin to view their fathers as a rival for the mother's affections. The Oedipus complex describes these feelings of wanting to possess the mother and the desire to replace the father. However, the child also fears that he will be punished by the father for these feelings, a fear Freud termed *castration anxiety*.

The term Electra complex has been used to describe a similar set of feelings experienced by young girls. Freud, however, believed that girls instead experience *penis envy*.

Eventually, the child begins to identify with the same-sex parent as a means of vicariously possessing the other parent. For girls, however, Freud believed that penis envy was never fully resolved and that all women remain somewhat fixated on this stage. Psychologists such as Karen Horney disputed this theory, calling it both inaccurate and demeaning to women. Instead, Horney proposed that men experience feelings of inferiority because they cannot give birth to children, a concept she referred to as *womb envy*.

The Latent Period - Age Range: 6 to Puberty

Erogenous Zone: Sexual Feelings Are Inactive

During the latent period, the libido interests are suppressed. The development of the ego and superego contribute to this period of calm. The stage begins around the time that children enter into school and become more concerned with peer relationships, hobbies, and other interests.

The latent period is a time of exploration in which the sexual energy is still present, but it is directed into other areas such as intellectual pursuits and social interactions. This stage is important in the development of social and communication skills and self-confidence.

Evaluating Freud's Psychosexual Stage Theory

Freud's theory is still considered controversial today, but imagine how audacious it seemed during the late 1800s and early 1900s. There have been a number of observations and criticisms of Freud's psychosexual theory on a number of grounds, including scientific and feminist critiques:

The theory is focused almost entirely on male development with little mention of female psychosexual development.

His theories are difficult to test scientifically. Concepts such as the libido are impossible to measure, and therefore cannot be tested. The research that has been conducted tends to discredit Freud's theory.

Future predictions are too vague. How can we know that a current behaviour was caused specifically by a childhood experience? The length of time between the cause and the effect is too long to assume that there is a relationship between the two variables.

Freud's theory is based upon case studies and not empirical research. Also, Freud based his theory on the recollections of his adult patients, not on actual observation and study of children.

Erikson's Psychosocial Developmental Theory

Psychoanalytic theory was an enormously influential force during the first half of the twentieth century. Those inspired and influenced by Freud went on to expand upon Freud's ideas and develop theories of their own. Of these neo-Freudians, Erik Erikson's ideas have become perhaps the best known.



Erikson's eight-stage theory of psychosocial development describes growth and change throughout life, focusing on social interaction and conflicts that arise during different stages of development.

While Erikson's theory of psychosocial development shared some similarities with Freud's, it is dramatically different in many ways. Rather than focusing on sexual interest as a driving force in development, Erikson believed that social interaction and experience played decisive roles.

His eight-stage theory of human development described this process from infancy through death. During each stage, people are faced with a developmental conflict that impacts later functioning and further growth.

Unlike many other developmental theories, Erik Erikson's psychosocial theory focuses on development across the entire lifespan. At each stage, children and adults face a developmental crisis that serves as a major turning point. Successfully managing the challenges of each stage leads to the emergence of a lifelong psychological virtue.

So what exactly did Erikson's theory of psychosocial development entail?

Much like Sigmund Freud, Erikson believed that personality developed in a series of stages. Unlike Freud's theory of psychosexual stages, Erikson's theory described the impact of social experience across the whole lifespan. Erikson was interested in how social interaction and relationships played a role in the development and growth of human beings.

In each stage, Erikson believed people experience a conflict that serves as a turning point in development. In Erikson's view, these conflicts are centered on either developing a psychological quality or failing to develop that quality. During these times, the potential for personal growth is high but so is the potential for failure.

If people successfully deal with the conflict, they emerge from the stage with psychological strengths that will serve them well for the rest of their life. If they fail to deal effectively with these conflicts, they may not develop the essential skills needed

for a strong sense of identity and self.

The Role of Ego Identity and Ego Strength

One of the main elements of Erikson's psychosocial stage theory was the development of ego identity. Ego identity is the conscious sense of self that we develop through social interaction. According to Erikson, our ego identity constantly changes due to new experiences and information we acquire in our daily interactions with others.

As we face each new stage of development, we also take on new challenges that can help or hinder the development of identity.

When psychologists talk about identity, they are referring to all of the beliefs, ideals, and values that help shape and guide a person's behaviour. Forming the identity is something that begins in childhood and becomes particularly important during adolescence. Erikson believed that it is a process that continues throughout life.

Our personal identity gives each of us an integrated and cohesive sense of self that endures and continues to grow as we age. Our sense of personal identity is shaped by our experiences and interactions with others, and it is this identity that helps guide our actions, beliefs, and behaviours as we grow and develop throughout life.

In addition to ego identity, Erikson also believed that a sense of competence motivates behaviours and actions. Each stage in Erikson's theory is concerned with becoming competent in an area of life. If the stage is handled well, the person will feel a sense of mastery, which is sometimes referred to as ego strength or ego quality. If the stage is managed poorly, the person will emerge with a sense of inadequacy.

Psychosocial Stage 1 - Trust vs. Mistrust

The first stage of Erikson's theory of psychosocial development occurs between birth and one year of age and is the most fundamental stage in life.

Basic Conflict: Trust vs. Mistrust

Important Events: Feeding

Outcome: During the first stage of psychosocial development, children develop a sense of trust when caregivers provide reliability, care, and affection. A lack of this will lead to mistrust.

Because an infant is utterly dependent, developing trust is based on the dependability and quality of the child's caregivers. At this point in development, the child is utterly dependent upon adult caregivers for everything that he or she needs to survive including food, love, warmth, safety, and nurturing.

Everything. If a caregiver fails to provide adequate care and love, the child will come to feel that he or she cannot trust or depend upon the adults in his or her life.

If a child successfully develops trust, he or she will feel safe and secure in the world. Caregivers who are inconsistent, emotionally unavailable, or rejecting contribute to feelings of mistrust in the children under their care. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable.

Of course, no child is going to develop a sense of 100 percent trust or 100 percent doubt. Erikson believed that successful development was all about striking a balance between the two opposing sides. When this happens, children acquire hope, which Erikson described as an openness to experience tempered by some wariness that danger may be present.

Psychosocial Stage 2 - Autonomy vs. Shame and Doubt

The second stage of Erikson's theory of psychosocial development takes place during early childhood and is focused on children developing a greater sense of personal control.

Basic Conflict: Autonomy vs. Shame and Doubt

Important Events: Toilet Training

Outcome: Children need to develop a sense of personal control over physical skills and a sense of independence. Potty training plays an important role in helping children develop this sense of autonomy. Children who struggle and who are shamed for their accidents may be left without a sense of personal control. Success during this stage of psychosocial development leads to feelings of autonomy, failure results in feelings of shame and doubt.

At this point in development, children are just starting to gain a little independence. They are starting to perform basic actions on their own and making simple decisions about what they prefer. By allowing kids to make choices and gain control, parents and caregivers can help children develop a sense of autonomy.

Like Freud, Erikson believed that toilet training was a vital part of this process. However, Erikson's reasoning was quite different than that of Freud's. Erikson believed that learning to control one's bodily functions leads to a feeling of control and a sense of independence.

Other important events include gaining more control over food choices, toy preferences, and clothing selection.

Children who successfully complete this stage feel secure and confident, while those who do not are left with a sense of inadequacy and self-doubt. Erikson believed that achieving a balance between autonomy and shame and doubt would lead to will, which is the belief that children can act with intention, within reason and limits.

Psychosocial Stage 3 - Initiative vs. Guilt

The third stage of psychosocial development takes place during the preschool years.

Basic Conflict: Initiative vs. Guilt

Important Events: Exploration

Outcome: Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.

At this point in psychosocial development, children begin to assert their power and control over the world through directing play and other social interactions.

Children who are successful at this stage feel capable and able to lead others. Those who fail to acquire these skills are left with a sense of guilt, self-doubt, and lack of initiative.

When an ideal balance of individual initiative and a willingness to work with others is achieved, the ego quality known as purpose emerges.

Psychosocial Stage 4 - Industry vs. Inferiority

The fourth psychosocial stage takes place during the early school years from approximately age 5 to 11.

Basic Conflict: Industry vs. Inferiority

Important Events: School

Outcome: Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.

Through social interactions, children begin to develop a sense of pride in their accomplishments and abilities. Children who are encouraged and commended by parents and teachers develop a feeling of competence and belief in their skills. Those who receive little or no encouragement from parents, teachers, or peers will doubt their abilities to be successful.

Successfully finding a balance at this stage of psychosocial development leads to the strength known as competence, in which children develop a belief their abilities to handle the tasks set before them.

Psychosocial Stage 5 - Identity vs. Confusion

The fifth psychosocial stage takes place during the sometimes turbulent teenage years. This stage plays an essential role in developing a sense of personal identity which will continue to influence behaviour and development for the rest of a person's life.

Basic Conflict: Identity vs. Role Confusion

Important Events: Social Relationships

Outcome: Teens need to develop a sense of self and personal identity.

Success leads to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self.

During adolescence, children explore their independence and develop a sense of self. Those who receive proper encouragement and reinforcement through personal exploration will emerge from this stage with a strong sense of self and a feeling of independence and control. Those who remain unsure of their beliefs and desires will feel insecure and confused about themselves and the future.

Completing this stage successfully leads to fidelity, which Erikson described as an ability to live by society's standards and expectations.

Psychosocial Stage 6 - Intimacy vs. Isolation

This stage covers the period of early adulthood when people are exploring personal relationships.

Basic Conflict: Intimacy vs. Isolation

Important Events: Relationships

Outcome: Young adults need to form intimate, loving relationships with other people. Success leads to strong relationships, while failure results in loneliness and isolation.

Erikson believed it was vital that people develop close, committed relationships with other people. Those who are successful at this step will form relationships that are enduring and secure.

Remember that each step builds on skills learned in previous steps. Erikson believed that a strong sense of personal identity was important for developing intimate relationships. Studies have demonstrated that those with a poor sense of self do tend to have less committed relationships and are more likely to suffer emotional isolation, loneliness, and depression.

Successful resolution of this stage results in the virtue known as love. It is marked by the ability to form lasting, meaningful relationships with other people.

Psychosocial Stage 7 - Generativity vs. Stagnation

During adulthood, we continue to build our lives, focusing on our career and family.

Basic Conflict: Generativity vs. Stagnation

Important Events: Work and Parenthood

Outcome: Adults need to create or nurture things that will outlast them, often by having children or creating a positive change that benefits other people.

Success leads to feelings of usefulness and accomplishment, while failure results in shallow involvement in the world.

Those who are successful during this phase will feel that they are contributing to the world by being active in their home and community. Those who fail to attain this skill will feel unproductive and uninvolved in the world.

Care is the virtue achieved when this stage is handled successfully. Being proud of your accomplishments, watching your children grow into adults, and developing a sense of unity with your life partner are important accomplishments of this stage.

Psychosocial Stage 8 - Integrity vs. Despair

The final psychosocial stage occurs during old age and is focused on reflecting back on life.

Basic Conflict: Ego Integrity vs. Despair

Important Events: Reflection on life

Outcome: Erikson's theory differed from many others because it addressed development throughout the entire lifespan, including old age. Older adults need to look back on life and feel a sense of fulfillment. Success at this stage leads to feelings of wisdom, while failure results in regret, bitterness, and despair. At this stage, people reflect back on the events of their lives and take stock. Those who look back on a life they feel was well-lived will feel satisfied and ready to face the end of their lives with a sense of peace. Those who look back and only feel regret will instead feel fearful that their lives will end without accomplishing the things they feel they should have.

At this point in development, people look back on the events of their lives and determine if they are happy with the life that they lived or if they regret the things they did or didn't do.

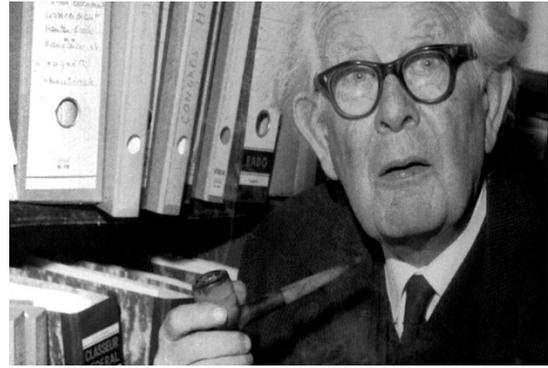
Those who are unsuccessful during this stage will feel that their life has been wasted and will experience many regrets. The individual will be left with feelings of bitterness and despair.

Those who feel proud of their accomplishments will feel a sense of integrity. Successfully completing this phase means looking back with few regrets and a general feeling of satisfaction. These individuals will attain wisdom, even when

confronting death.

Piaget's Cognitive Developmental Theory

Cognitive theory is concerned with the development of a person's thought processes. It also looks at how these thought processes influence how we understand and interact with the world. Piaget proposed an idea that seems obvious now, but helped revolutionize how we think about child development: *Children think differently than adults.*



Theorist Jean Piaget proposed one of the most influential theories of cognitive development. His cognitive theory seeks to describe and explain the development of thought processes and mental states. It also looks at how these thought processes influence the way we understand and interact with the world.

Piaget then proposed a theory of cognitive development to account for the steps and sequence of children's intellectual development.

The Sensorimotor Stage: A period of time between birth and age two during which an infant's knowledge of the world is limited to his or her sensory perceptions and motor activities. Behaviours are limited to simple motor responses caused by sensory stimuli.

The Preoperational Stage: A period between ages 2 and 6 during which a child learns to use language. During this stage, children do not yet understand concrete logic, cannot mentally manipulate information and are unable to take the point of view of other people

The Concrete Operational Stage: A period between ages 7 and 11 during which children gain a better understanding of mental operations. Children begin thinking logically about concrete events, but have difficulty understanding abstract or hypothetical concepts

The Formal Operational Stage: A period between age 12 to adulthood when people develop the ability to think about abstract concepts. Skills such as logical thought, deductive reasoning, and systematic planning also emerge during this stage.

The Sensorimotor Stage

This is the earliest in Piaget's theory of cognitive development. He described this period as a time of tremendous growth and change.

During this initial phase of development, children experience the world and gain knowledge through their senses and motor movements. As children interact with their environments, they go through an astonishing amount of cognitive growth in a relatively short period of time.

The first stage of Piaget's theory lasts from birth to approximately age two and is centered on the infant trying to make sense of the world.

During the sensorimotor stage, an infant's knowledge of the world is limited to his or her sensory perceptions and motor activities. Behaviours are limited to simple motor responses caused by sensory stimuli.

Children utilize skills and abilities they were born with (such as looking, sucking, grasping, and listening) to learn more about the environment.

Object Permanence

According to Piaget, developing object permanence is one of the most important accomplishments at the sensorimotor stage of development. Object permanence is a child's understanding that objects continue to exist even though they cannot be seen or heard.

Imagine a game of peek-a-boo, for example.

A very young infant will believe that the other person or object has actually vanished and will act shocked or startled when the object reappears. Older infants who understand object permanence will realize that the person or object continues to exist even when unseen.

Sub stages of the Sensorimotor Stage

The sensorimotor stage can be divided into six separate sub-stages that are characterized by the development of a new skill.

1. Reflexes (0-1 month):

During this sub stage, the child understands the environment purely through inborn reflexes such as sucking and looking.

2. Primary Circular Reactions (1-4 months):

This sub stage involves coordinating sensation and new schemas. For example, a child may suck his or her thumb by accident and then later intentionally repeat the

action. These actions are repeated because the infant finds them pleasurable.

3. Secondary Circular Reactions (4-8 months):

During this sub stage, the child becomes more focused on the world and begins to intentionally repeat an action in order to trigger a response in the environment. For example, a child will purposefully pick up a toy in order to put it in his or her mouth.

4. Coordination of Reactions (8-12 months):

During this sub stage, the child starts to show clearly intentional actions.

The child may also combine schemas in order to achieve a desired effect. Children begin exploring the environment around them and will often imitate the observed behaviour of others. The understanding of objects also begins during this time and children begin to recognize certain objects as having specific qualities. For example, a child might realize that a rattle will make a sound when shaken.

5. Tertiary Circular Reactions (12-18 months):

Children begin a period of trial-and-error experimentation during the fifth sub stage. For example, a child may try out different sounds or actions as a way of getting attention from a caregiver.

6. Early Representational Thought (18-24 months):

Children begin to develop symbols to represent events or objects in the world in the final sensorimotor sub stage. During this time, children begin to move towards understanding the world through mental operations rather than purely through actions.

The preoperational stage

The preoperational stage is the second stage in Piaget's theory of cognitive development. This stage begins around age two as children start to talk and last until approximately age seven. During this stage, children begin to engage in symbolic play and learn to manipulate symbols. However, Piaget noted that they do not yet understand concrete logic.

Learn more about some of the key characteristics of this stage, including egocentrism and conservation.

Characteristics of the Preoperational Stage

The preoperational stage occurs roughly between the ages two and seven. Language development is one of the hallmarks of this period. Piaget noted that children in this stage do not yet understand concrete logic, cannot mentally manipulate information, and are unable to take the point of view of other people,

which he termed egocentrism.

During the preoperational stage, children also become increasingly adept at using symbols, as evidenced by the increase in playing and pretending. For example, a child is able to use an object to represent something else, such as pretending a broom is a horse. Role playing also becomes important during the preoperational stage. Children often play the roles of "mommy", "daddy", "doctor", and many other characters.

Egocentrism

Piaget used a number of creative and clever techniques to study the mental abilities of children. One of the famous techniques to demonstrate egocentrism involved using a three-dimensional display of a mountain scene. Often referred to as the "*Three Mountain Task*," children are asked to choose a picture that showed the scene they had observed.

Most children are able to do this with little difficulty. Next, children are asked to select a picture showing what *someone else* would have observed when looking at the mountain from a different viewpoint.

Invariably, children almost always choose the scene showing *their own* view of the mountain scene. According to Piaget, children experience this difficulty because they are unable to take on another person's perspective.

Conservation

Another well-known experiment involves demonstrating a child's understanding of **conservation**. In one conservation experiment, equal amounts of liquid are poured into two identical containers. The liquid in one container is then poured into a different shaped cup, such as a tall and thin cup or a short and wide cup. Children are then asked which cup holds the most liquid. Despite seeing that the liquid amounts were equal, children almost always choose the cup that appears fuller.

Piaget conducted a number of similar experiments on the conservation of number, length, mass, weight, volume, and quantity. He found that few children showed any understanding of conservation prior to the age of five.

Piaget's Thoughts on the Preoperational Stage

As you might have noticed, much of Piaget's focus at this stage of development focused on what children *could not yet do*.

The concepts of egocentrism and conservation are both centred on abilities that children have not yet developed; they lack the understanding that things look different to other people and that objects can change in appearance while still maintaining the same properties.

Concrete Operational Stage

Characteristics of the Concrete Operational Stage

The concrete operational stage begins around age seven and continues until approximately age eleven. During this time, children gain a better understanding of mental operations. Children begin thinking logically about concrete events, but have difficulty understanding abstract or hypothetical concepts.

Logic

Piaget determined that children in the concrete operational stage were fairly good at the use of inductive logic (inductive reasoning). Inductive logic involves going from a specific experience to a general principle. An example of inductive logic would be noticing that every time you are around a cat, you have itchy eyes, a runny nose, and a swollen throat. You might then reason from that experience that you are allergic to cats.

On the other hand, children at this age have difficulty using deductive logic, which involves using a general principle to determine the outcome of a specific event.

For example, a child might learn that $A=B$, and $B=C$, but might still struggle to understand that $A=C$.

Reversibility

One of the most important developments in this stage is an understanding of reversibility, or awareness that actions can be reversed. An example of this is being able to reverse the order of relationships between mental categories.

For example, a child might be able to recognize that his or her dog is a Labrador, that a Labrador is a dog, and that a dog is an animal.

Other Key Characteristics

Another key development at this stage is the understanding that when something changes in shape or appearance it is still the same, a concept known as conservation. Kids at this stage understand that if you break a candy bar up into smaller pieces it is still the same amount as when the candy was whole.

The concrete operational stage is also marked by egocentrism disappearance. While children in the preceding stage of development (the preoperational stage) struggle to take the perspective of others, kids in the concrete stage are able to think about things the way that others see them. In Piaget's Three-Mountain Task, for example, children in the concrete operational stage can describe how a mountain scene would look to an observer seated opposite them.

The Formal Operational Stage

Characteristics of the Formal Operational Stage

The formal operational stage begins at approximately age twelve and lasts into adulthood.

During this time, people develop the ability to think about abstract concepts. Skills such as logical thought, deductive reasoning, and systematic planning also emerge during this stage.

How Did Piaget Test Formal Operations?

Piaget tested formal operational thought in a few different ways:

One task involved having children of different ages balance a scale by hooking weights on the each end. To balance the scale, the children needed to understand that both the heaviness of the weights and distancing from the center played a role.

Younger children around the ages of 3 and 5 were unable to complete the task because they did not understand the concept of balance. Seven-year-olds knew that they could adjust the scale by placing weights on each end, but failed to understand that where they put the weights was also important.

By age 10, the kids considered location as well as weight but had to arrive at the correct answer using trial-and-error. It wasn't until around age 13 that children could use logic to form a hypothesis about where to place the weights to balance the scale and then complete the task.

In another experiment on formal operational thought, Piaget asked children to imagine where they would want to place a third eye if they had one.

In another experiment on formal operational thought, Piaget asked children to imagine where they would want to place a third eye if they had one.

Younger children said that they would put the imagined third eye in the middle of their forehead. Older children, however, were able to come up with a variety of creative ideas about where to place this hypothetical eye and various ways the eye could be used. An eye in the middle of one's hand would be useful for looking around corners. An eye at the back of one's head could be helpful for seeing what is happening in the background. Such creative ideas represent the use of abstract and hypothetical thinking, both important indicators of formal operational thought.

Logic

Piaget believed that deductive reasoning became necessary during the formal operational stage. Deductive logic requires the ability to use a general principle to determine a particular outcome. Science and mathematics often require this type of thinking about hypothetical situations and concepts.

Abstract Thought

While children tend to think very concretely and specifically in earlier stages, the ability to think about abstract concepts emerges during the formal operational stage. Instead of relying solely on previous experiences, children begin to consider possible outcomes and consequences of actions. This type of thinking is important in long-term planning.

Problem-Solving

In earlier stages, children used trial-and-error to solve problems. During the formal operational stage, the ability to systematically solve a problem in a logical and methodical way emerges. Children at the formal operational stage of cognitive development are often able to plan quickly an organized approach to solving a problem.

Other Characteristics of the Formal Operational Stage

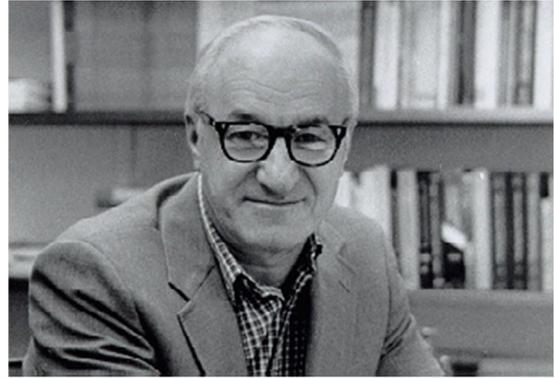
Piaget believed that what he referred to as "hypothetico-deductive reasoning" was essential at this stage of intellectual development. At this point, teens become capable of thinking about abstract and hypothetical ideas.

They often ponder "what-if" type situations and questions and can think about multiple solutions or possible outcomes.

While kids in the previous stage (concrete operations) are very particular in their thoughts, kids in the formal operational stage become increasingly abstract in their thinking. They also develop what is known as metacognition, or the ability to think about their thoughts as well as the ideas of others.

Bandura's Social Learning Theory

Social learning theory is based on the work of psychologist Albert Bandura. Bandura believed that the conditioning and reinforcement process could not sufficiently explain all of human learning. For example, how can the conditioning process account for learned behaviours that have not been reinforced through classical conditioning or operant conditioning?



According to social learning theory, behaviours can also be learned through observation and modelling. By observing the actions of others, including parents and peers, children develop new skills and acquire new information.

Bandura's child development theory suggests that observation plays a critical role in learning, but this observation does not necessarily need to take the form of watching a live model. Instead, people can also learn by listening to verbal instructions about how to perform a behaviour as well as through observing either real or fictional characters display behaviours in books or films.

How Does Social Learning Theory Work?

During the first half of the 20th-century, the behavioural school of psychology became a dominant force. The behaviourists proposed that all learning was a result of direct experience with the environment through the processes of association and reinforcement. While Bandura's theory is also rooted in many of the basic concepts of traditional learning theory, he believed that direct reinforcement could not account for all types of learning.

For example, children and adults often exhibit learning for things with which they have no direct experience.

Even if you have never swung a baseball bat in your life, you would probably know what to do if someone handed you a bat and told you to try to hit a baseball. This is because you have seen others perform this action either in person or on television.

While the behavioural theories of learning suggested that all learning was the result of associations formed by conditioning, reinforcement, and punishment, Bandura's social learning theory proposed that learning can also occur simply by observing the actions of others.

His theory added a social element, arguing that people can learn new information and behaviours by watching other people. Known as observational learning, this type of learning can be used to explain a wide variety of behaviours, including those that often cannot be accounted for by other learning theories

Three Things You Should Know About Social Learning Theory

There are three core concepts at the heart of social learning theory. First is the idea that people can learn through observation. Next is the notion that internal mental states are an essential part of this process. Finally, this theory recognizes that just because something has been learned, it does not mean that it will result in a change in behaviour.

"Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do," Bandura explained in his 1977 book *Social Learning Theory*. "Fortunately, most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action."

Let's explore each of these concepts in greater depth.

1. People can learn through observation.

In one of the best-known experiments in the history of psychology, Bandura demonstrated that children learn and imitate behaviours they have observed in other people. The children in Bandura's studies observed an adult acting violently toward a Bobo doll.

When the children were later allowed to play in a room with the Bobo doll, they began to imitate the aggressive actions they had previously observed.

Bandura identified three basic models of observational learning:

1. A live model, which involves an actual individual demonstrating or acting out a behaviour.
2. A verbal instructional model, which involves descriptions and explanations of a behaviour.
3. A symbolic model, which involves real or fictional characters displaying behaviours in books, films, television programs, or online media.

As you can see, observational learning does not even necessarily require watching another person engage in an activity. Hearing verbal instructions, such as listening to a podcast, can lead to learning. We can also learn by reading, hearing, or watching the actions of characters in books and films.

As you can imagine, it is this type of observational learning that has become a lightning rod for controversy as parents and psychologists debate the impact that pop culture media has on kids. Many worry that kids can learn bad behaviours such as aggression from violent video games, movies, television programs, and online videos.

2. Mental states are important to learning.

Just observing someone else's actions is not always enough to lead to learning. Your own mental state and motivation play an important role in determining whether a behaviour is learned or not.

While the behavioural theories of learning suggested that it was external reinforcement that created learning, Bandura realized that reinforcement does not always come from outside sources.

Bandura noted that external, environmental reinforcement was not the only factor to influence learning and behaviour. He described intrinsic reinforcement as a form of internal reward, such as pride, satisfaction, and a sense of accomplishment. This emphasis on internal thoughts and cognitions helps connect learning theories to cognitive developmental theories. While many textbooks place social learning theory with behavioural theories, Bandura himself describes his approach as a 'social cognitive theory.

3. Learning does not necessarily lead to a change in behaviour.

So how do we determine when something has been learned? In many cases, learning can be seen immediately when the new behaviour is displayed. When you teach a child to ride a bicycle, you can quickly determine if learning has occurred by having the child ride his or her bike unassisted.

But sometimes we are able to learn things even though that learning might not be immediately obvious. While behaviourists believed that learning led to a permanent change in behaviour, observational learning demonstrates that people can learn new information without demonstrating new behaviours.

How Does Observational Learning Happen?

It is also important to note that not all observed behaviours are effectively learned. Why not? Factors involving both the model and the learner can play a role in whether social learning is successful. Certain requirements and steps must also be followed.

The following steps are involved in the observational learning and modelling process:

Attention: In order to learn, you need to be paying attention. Anything that distracts your attention is going to have a negative effect on observational learning. If the model is interesting or there is a novel aspect of the situation, you are far more likely to dedicate your full attention to learning.

Retention: The ability to store information is also an important part of the learning process. Retention can be affected by a number of factors, but the ability to pull up information later and act on it is vital to observational learning.

Reproduction: Once you have paid attention to the model and retained the information, it is time to actually perform the behaviour you observed. Further practice of the learned behaviour leads to improvement and skill advancement.

Motivation: Finally, in order for observational learning to be successful, you have to be motivated to imitate the behaviour that has been modelled. Reinforcement and punishment play an important role in motivation. While experiencing these motivators can be highly effective, so can observing others experiencing some type of reinforcement or punishment. For example, if you see another student rewarded with extra credit for being to class on time, you might start to show up a few minutes early each day.

A Few Applications for Social Learning Theory

Social learning theory can have a number of real-world applications. For example, it can be used to help researchers understand how aggression and violence might be transmitted through observational learning. By studying media violence, researchers can gain a better understanding of the factors that might lead children to act out the aggressive actions they see portrayed on television and in the movies.

But social learning can also be utilized to teach people positive behaviours. Researchers can use social learning theory to investigate and understand ways that positive role models can be used to encourage desirable behaviours and to facilitate social change.

Vygotsky's Sociocultural Theory

Another psychologist named Lev Vygotsky proposed a seminal learning theory that has gone on to become very influential, especially in the field of education. Like Piaget, Vygotsky believed that children learn actively and through hands-on experiences. His sociocultural theory also suggested that parents, caregivers, peers and the culture at large were responsible for developing higher order functions.



In Vygotsky's view, learning is an inherently social process. Through interacting with others, learning becomes integrated into an individual's understanding of the world. This child development theory also introduced the concept of the zone of proximal development, which is the gap between what a person can do with help and what they can do on their own. It is with the help of more knowledgeable others that people are able to progressively learn and increase their skills and scope of understanding.

Sociocultural theory grew from the work of seminal psychologist Lev Vygotsky, who believed that parents, caregivers, peers, and the culture at large were responsible for developing higher order functions.

According to Vygotsky, learning has its basis in interacting with other people. Once this has occurred, the information is then integrated on the individual level:

"Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals."

Vygotsky was a contemporary of other great thinkers such as Freud, Skinner, and Piaget, but his early death at age 37 and suppression of his work in Stalinist Russia left him in relative obscurity until fairly recently. As his work became more widely published, his ideas have grown increasingly influential in areas including child development, cognitive psychology, and education.

Sociocultural theory focuses not only how adults and peers influence individual learning, but also on how cultural beliefs and attitudes impact how instruction and learning take place.

According to Vygotsky, children are born with basic biological constraints on their

minds. Each culture, however, provides what he referred to as 'tools of intellectual

adaptation.' These tools allow children to use their basic mental abilities in a way that is adaptive to the culture in which they live.

For example, while one culture might emphasize memory strategies such as note-taking, other cultures might utilize tools like reminders or rote memorisation.

Piaget vs. Vygotsky: Key Differences

So how does Vygotsky's sociocultural theory differ from Piaget's theory of cognitive development?

First, Vygotsky placed a greater emphasis on how social factors influence development. While Piaget's theory stressed how a child's interactions and explorations influenced development, Vygotsky stressed the essential role that social interactions play in cognitive development.

Another important difference between the two theories was that while Piaget's theory suggests that development is largely universal, Vygotsky suggested that cognitive development can differ between different cultures. The course of development in a Western culture, for example, might be different than it is in an Eastern culture.

The Zone of Proximal Development

An important concept in sociocultural theory is known as the zone of proximal development.

According to Vygotsky, the zone of proximal development "is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers."

Essentially, it includes all of the knowledge and skills that a person cannot yet understand or perform on their own yet but is capable of learning with guidance. As children are allowed to stretch their skills and knowledge, often by observing someone who is slightly more advanced than they are, they are able to progressively extend this zone of proximal development.