

. UNDERSTANDING CHILD AND ADOLESCENT DEVELOPMENT

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*Childhood means simplicity. Look at the world with the child's eye - it is very beautiful.
- Kailash Satyarthi*

OVERVIEW

In this module, we will cover the following topics:

- Piaget's theory of child development
- Erikson's psychosocial stages of human development
- Bowlby's attachment theory
- Watson's behaviorism theory
- Other developmental theories
- Behavioral cusp

INTRODUCTION

To be able to identify and manage a child with special education needs, it is firstly necessary to understand typical child development. From the early 1900s, there have been many different theories, each focusing on a different aspect of functioning, such as cognitive abilities, psychosocial functioning, cultural influences, psychosexual stages, attachment, and conditioning.

Most agree on the same basic principles, namely that a child's biological disposition interacts with their environment to determine their individual psychology and behavior. It is especially the primary caretaker who, as a role model and provider for basic needs, plays a critical role during the formative years from birth to eight, of which the first two years are particularly crucial. The most widely referenced model of child development is Piaget's theory of cognitive stages

PIAGET'S THEORY OF CHILD DEVELOPMENT

The best known human developmental stage model was developed by Jean Piaget, whose ideas became popular in the 1960s. He described four sequential stages of cognitive development from birth to adulthood. Piaget's cognitive theory consists of three building blocks, namely (a) schemas, or building blocks of knowledge, (b) adaptation processes of equilibrium, assimilation, and accommodation that enables the transition from one stage to another, and (c) distinction of four steps of development. These developmental stages include the sensorimotor (0-2 years), preoperational (2-7 years), concrete operational (7-11 years), and formal operational (11 years+) periods. To today, the stages remain useful, especially to understand the cognitive development of children, but it has also attracted criticism.

SENSORIMOTOR STAGE

Piaget suggested that the first stage of human development, the sensorimotor stage, begins at birth and lasts to 2-years-old. When a baby is born, he or she starts to develop both physically and cognitively. Physical abilities include crawling, grasping, and pulling, and, as babies develop cognitive skills, they also start to think about their behaviors and react to different stimuli such as noises, movement, and emotions. These aspects are what defines the sensorimotor stage, which can be further subdivided into six types, namely simple reflexes, primary, secondary, and tertiary circular reactions, coordination of reactions, and early representational thought.

A reflex is an involuntary reaction that happens automatically without thinking and is prevalent for the first six weeks of life. Primary circular reactions occur around 1-4 months of age when they realize that they have the ability to repeat a movement such as placing their thumb in their mouth. Secondary circular reactions happen between 4-8 months, and the child learns to intentionally repeat an action to get a response in the environment.

Coordination of reactions, which include clearly intentional actions, exploring their immediate surroundings, imitating the observed behavior of others, and recognizing the qualities of objects, take place between 8-12 months. Tertiary circular reactions involves trial-and-error experimentation, especially trying out different sounds or actions as a way of getting attention from a caregiver, at 12-18 months of age. In the final sensorimotor substage, early representational thought, children become aware of mental operations and begin to develop symbols to represent events of objects in the world.

PREOPERATIONAL STAGE

The second stage of child development, the preoperational stage, lasts from 2-years-old to the age of 7. During this period, children starts to talk and begin to engage in symbolic play during which they learn to manipulate symbols. Yet, Piaget argued, they do not understand concrete logic, cannot mentally manipulate information, and are unable to take the point of view of other people, which he termed egocentrism. They use pretending in play activities by using objects to represent something else and assuming others' roles. During this time, few children showed an understanding of conservation, or the ability to determine that a certain quantity will remain the same despite adjustment of the container, shape, or apparent size.

CONCRETE OPERATIONAL STAGE

Piaget called the third developmental stage the concrete operational stage, which spans from 7- to 12-years-old. The main characteristic of the concrete operational stage are a better understanding of mental operations, such as thinking logically about concrete events and an awareness that actions can be reversed. However, they still have difficulty understanding abstract or hypothetical concepts. At his time, their understanding of conservation develops, and the marked egocentrism disappears.

FORMAL OPERATIONAL STAGE

Piaget's final stage of child development happens in adolescence, from 12-year-old onward. During this fourth period of cognitive growth, abstract thought and hypothetical reasoning skills emerge. Children can use logic to come up with creative solutions to problems and apply systematic planning in the process. Deductive reasoning requires the ability to use a general principle to determine a particular outcome, while the capacity to think about abstract concepts means considering possible outcomes and consequences of actions rather than solely relying on previous experiences. Also, instead of depending on trial-and-error to solve problems, teens are able to plan an organized and systematic approach to achieve the same.

CRITICISM OF PIAGET'S THEORY

More recent postformal development models criticized the fact that Piaget's model does not cover adult cognitive development. Mostly, Piaget's model assumes that

thinking changes halt in adolescence and early adulthood. Until recently even, it has even been believed that adulthood brings a long and steady decline of cognitive capability. This is just illogical and definitely not correct but has shaped education and leadership development approaches of adults for many decades.

Also, there is an unclear association between cognitive and intellectual abilities. Piaget's theory largely overlooks effects of cultural, social, and other contextual influences. The identification of distinct stages is oversimplified and assumes the same level of cognitive operations in all areas of functioning of any individual at a time. It also diminishes the impact of ego development and other psychological phenomena on cognitive processes, an issue that causes a failure to adequately account for dysfunctional behavior and psychological disturbances. Generally, no explanation is provided for a qualitative difference in cognitive capacity between two persons of the same age.

Piaget also assumed that individuals will automatically transcend to the next stage as they age, with the meaning of age generally defining developmental and social status. This is a fundamental flaw, especially when considering adult cognitive development. Contrary to earlier beliefs, children are not alike "little adults" with only incremental differences in physical ability, skills, and intelligence. Their cognitive structures and thinking patterns are vastly different. Thus, as a first step, several researchers expanded Piaget's model to cover the whole lifespan, including the various adult stages of development, which is outside the scope of this material.

However, Piaget's model remains useful to explain cognitive stages in child development, especially as he applied the concept of schema to an understanding of the development of learning in children. Piaget defined schema as the child's mental representation of an associated set of perceptions, ideas, and/or behavior that form the basic building block of thinking. With the development of cognitive abilities, new schemata are constructed, while existing schemata are more efficiently organized to better adapt to the environment. Piaget also noted that an individual has the tendency to interpret new events about existing schemata rather than adapting or forming new ones. Therefore, the model describes how a child's views and beliefs about himself, others, and the world builds over time until it becomes relatively fixed in late adolescence and plays a determining role in people's emotions, thoughts, and behavior.

ERIKSON'S PSYCHOSOCIAL STAGES OF HUMAN DEVELOPMENT

In the late 1950s, Erik Erikson proposed a psychoanalytic theory of psychosocial development comprising eight stages from infancy to adulthood that was greatly influenced by Freud's ideas of personality structure.

Figure 1.1: *Erikson's Eight Stages of Psychosocial Development*

Stage	Psychosocial Crisis	Basic Virtue	Age
1	Trust vs. mistrust	Hope	Infancy (0 to 1 ½)
2	Autonomy vs. shame	Will	Early Childhood (1 ½ to 3)
3	Initiative vs. guilt	Purpose	Play Age (3 to 5)
4	Industry vs. inferiority	Competency	School Age (5 to 12)
5	Ego identity vs. Role Confusion	Fidelity	Adolescence (12 to 18)
6	Intimacy vs. isolation	Love	Young Adult (18 to 40)
7	Generativity vs. stagnation	Care	Adult hood(40 to 65)
8	Ego integrity vs. despair	Wisdom	Maturity (65+)

Different from Freud, Erikson emphasized the role of culture and society and the conflicts that can take place within the ego itself, rather than focusing on the conflict between the id and the superego. He argued that the ego develops as it successfully resolves crises that are social in nature, which involves developing a sense of trust in others and identity in society. As such, Erikson believed that personality develops in a predetermined order where each of the eight stages builds upon the previous one. The successful acquisition of the skills in each stage reflects a healthy personality, while failure implies the reduced ability to complete further steps and a more unhealthy personality and sense of self. The first stage involves a crisis of trust and mistrust.

HOPE: TRUST VS. MISTRUST (ORAL-SENSORY, INFANCY, 0–2 YEARS)

In the first year or so of life, the child forms an idea whether the world is a safe place or filled with unpredictable and unpleasant events. Trying to resolve their feelings of uncertainty, the infant looks toward their primary caregiver for stability, safety, and consistency of care. If these qualities are present, the child feels secure and able to have healthy relationships with others. By developing a sense of trust, the child acquires the virtue of hope, instead of developing a fear of others and the future, which is associated with trait anxiety and mistrust.

WILL: AUTONOMY VS. SHAME AND DOUBT (EARLY CHILDHOOD, 2–4 YEARS)

In Erikson's second psychosocial stage, the toddler can experience a conflict between autonomy or a sense of personal control over physical skills and independence, and feelings of shame and doubt when the need is not satisfied. If denied sufficient autonomy, shame and self-consciousness develop, a sense of justice often lacks, and doubt may become paranoia.

PURPOSE: INITIATIVE VS. GUILT (LOCOMOTOR-GENITAL, PRESCHOOL, 4–5 YEARS)

In the preschool years, children need to begin asserting control and power over their environment, which leads to a sense of purpose if met with approval. Too much power

and an inability to adjust will result in negative feedback from others that causes guilt or denial that can lead to paralysis and inhibition, or overcompensation and showing off. The act of successful initiative adds to autonomy the quality of planning and executing a task with approval.

COMPETENCE: INDUSTRY VS. INFERIORITY (LATENCY, SCHOOL AGE, 5–12 YEARS)

In the pre-adolescent, school-age years, children learn to cope with social and academic demands and to use the fundamentals of technology to achieve their goals. Success is linked to confidence, while failure to perform can lead to isolation, conformity, and feelings of inferiority, which other may be able to exploit.

FIDELITY: IDENTITY VS. ROLE CONFUSION (ADOLESCENCE, 13–19 YEARS)

In the adolescent period, teens develop a sense of self and personal identity in the context of individual and group roles and responsibilities. Success in this stage means a stable and confident self-image. Otherwise, role confusion and a weak sense of self are likely. A lack of ego identity can lead to a diffusion thereof, where the adolescent struggles to fit in while remaining true to themselves.

The final three stages cover adulthood, namely (6) Love: intimacy vs. isolation (early adulthood, 20-39 years), (7) Care: generativity vs. stagnation (adulthood, 40–64 years), and (8) Wisdom: ego integrity vs. despair (maturity, 65 – death). These are also outside the scope of a discussion about child and adolescent development, although some aspects of romantic relationships, the need to make one's life count, and reflecting on the meaning of life can occur earlier in life depending on the responsibilities of the adolescent. Read more here about stages 6-8: <https://www.verywell.com/erik-eriksons-stages-of-psychosocial-development-2795740>.

Exercise 1.1

Explain why you think Piaget's work is important for people working with children and adolescents.

Answers can be found at the end of the module

Now watch this video

Human development: Piaget's cognitive theory

<https://www.youtube.com/watch?v=VKA8OXXOfJw> [25:48]



BOWLBY'S ATTACHMENT THEORY

Attachment theory is important to explain the significance of the bond between a mother and child. In many instances, the attachment theory describes how the children are attached to their mothers and the impact that it has on their development and characteristics and behavior later in life.

John Bowlby conceived of four stages of attachment that begin during infancy: pre-attachment, attachment-in-the-making, clear-cut attachment, and formation of reciprocal relationships. Although all of these phases pertain to children up to the age of two only, it is important to realize how profoundly the attachment styles that a child developed during this period influence their adjustment and behaviors later on.

Bowlby relied on the principles of evolutionary origins and biological purposes of behavior, arguing that children are biologically predisposed to develop attachments to caregivers as the result of genetics. To a large extent, an infant's actions are "designed" to encourage caretakers to attach to, care for, and stay in close proximity to the child, thereby ensuring his wellbeing and safety.

The caretaker-infant attachment is a complex process that leads to much deeper attachment with time that has lifelong implications as it profoundly influences a person's personality and reaction to thoughts and feelings. The first of Bowlby's stages of attachment, the pre-attachment period, happens from birth to about six weeks.

PRE-ATTACHMENT (BIRTH TO 6 WEEKS)

Instinctive reflexes, such as crying and cooing, are mechanisms to draw the caretaker closer to the infant, whose smell, voice, and touch are comforting and mark the beginning of an attachment. The attachment is still fluid and the baby is still comfortable in the presence of an unfamiliar person.

ATTACHMENT-IN-THE-MAKING (6 WEEKS TO 8 MONTHS)

Now, the attachment is getting stronger, and the child distinguishes between familiar people and strangers. Those with whom s/he has stronger attachments will be able to comfort them more by meeting the basic needs for food, shelter, and comfort. Separation anxiety has not developed yet, and the child does not feel anxious or becomes upset when the caregiver is absent,

CLEAR-CUT ATTACHMENT (8 MONTHS TO 18 MONTHS)

In this stage of attachment, separation anxiety is likely when a trusted caregiver is absent. Toddlers generally want to be with their preferred caregiver at all times, and they will follow the caretaker and do things to keep her attention. The attachment continues to strengthen as the adult stays receptive to the child's needs and gives him/her attention.

FORMATION OF RECIPROCAL ATTACHMENT (18 MONTHS TO 2 YEARS)

During this time, the child rapidly develops language, which facilitates a new understanding of the caretaker's movements and other concepts. As a result, separation anxiety usually lessens, which the parent or another significant adult can

help manage by explaining things to the child, being present as much as possible and interacting with the child.

As such, this theory also explained how the insecurities in attachments led to maladaptive behaviors in later adult life. Any shortcoming in providing for the child's basic needs will lead to negative expectations about him- or herself, other people, and the world, especially relating to trust and care. Along these lines, Ainsworth expanded on Bowlby's work and identified three primary types of attachment, namely secure, avoidant, and resistant/ambivalent, while his colleague, Mary Main, later added a fourth category, known as disorganized attachment. These different forms of attachment is associated with how children interact with others and respond to social situations later in life.

WATSON'S BEHAVIORISM THEORY

The behavioral analysis of child development originates from John B. Watson's study of behaviorism, which specifically looked at conditioning as a primary factor. Closely related to learning theory, behaviorism focuses on observable behaviors and is broken into two areas of conditioning – classical and operant.

The core premise of behavioral developmental theories is that children's interaction with their environment influences their behavior as they react to real or anticipated rewards, punishments, stimuli, and reinforcement. Unlike most other developmental theories, no consideration is given to internal experiences such as thoughts or feelings. Instead, the focus is only on how experience shapes behavior through mechanisms of conditioning.

CLASSICAL CONDITIONING

Watson proposed that the process of classical conditioning was able to explain all aspects of human psychology. For example, speech and emotions were responses based on external stimuli. In his 1924-book titled "Behaviorism," he famously stated:

“Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select - doctor, lawyer, artist, merchant-chief and, yes, even beggarman and thief, regardless of his talents, penchants, tendencies, abilities, vocations and the race of his ancestors.”

Based on Pavlov's experimental observations, Watson proposed that an unconditioned stimulus produced an unconditioned response, but, after repetition, both become conditioned, thereby creating a conditioned response after association with previous outcomes. The Little Albert experiment is one of the landmark studies of operant conditioning (read more here:

<http://www.simplypsychology.org/classical-conditioning.html>).

As such, child development is attributed to classical conditioning as experiences lead to conditioned responses. For instance, humiliation and punishment at school can lead to fear and a dislike of particular subjects.

OPERANT CONDITIONING

Operant conditioning is another form of learning whereby the child changes his or her behavior because of the consequences that s/he has encountered in previous similar situations. The results may be positive, thereby reinforcing the desired behavior, or negative, which discourages it. B. F. Skinner is regarded as the father of the term operant conditioning, and he also distinguished between positive and negative reinforcement determined by punishment and reward. Therefore, the expected outcomes of an intentional behavior shapes and modifies a child's behavior.

OTHER DEVELOPMENTAL THEORIES

Albert Bandura's social learning theory followed after Skinner's theory of operant conditioning, upon which it was based, but he added two important concepts, namely that mediating processes occur between stimuli and responses and that behavior is learned from the environment through the process of observational learning. Bandura proposed that mental processes are involved in learning rather than imitation or an automatic response. The four mediational processes suggested by Bandura are attention, memory, ability to reproduce the behavior, and motivation to perform the behavior.

Lev Vygotsky's sociocultural theory of child development proposes learning as a social process in the context of a person's society and culture. As such, social interaction plays a fundamental role in cognitive development. In his book titled "Social development theory" published in 1978, he wrote:

"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."

Therefore, according to Vygotsky, all children were born with fundamental biological constraints, but the cultural beliefs and attitudes in which they develop provide the tools to adapt their basic mental abilities to allow for optimal learning.

Freud's psychoanalytic child developmental theory stressed the importance of childhood events and experiences but emphasized psychosexual development relating to psychological dysfunctions rather than normal functioning. Freud identified these psychosexual stages as oral, anal, phallic, latency, and genital, through which he

argued a child progresses through with the passage of time, each linked to a different source of pleasure.

All these theories put together, offer a valuable perspective on child development in various aspects including cultural, social, cognitive, and attachment so that the understanding can help adults recognize children's individual needs and abilities and provide special education where required.

BEHAVIORAL CUSP

Finally, a concept worth mentioning as it has far-reaching consequences to the possibilities of accessing new reinforcers, new contingencies, new environments, new related behaviors, and shake archaic or problem behaviors. In essence, it can be applied as an alternative to the idea of simple chronological maturation linked to age-based developmental milestones. In simpler terms, some behavior changes may open the door to more profound changes and far-reaching consequences. As such, a cusp is a unique instance of behavior change that is crucial to subsequent or continued change.

Such ideas imply that behavior development is not always cumulative and hierarchical in that subsequent learning is dependent on prior knowledge. Therefore, human development is more complicated than chronological changes in a set sequence. Examples of aspects that can trigger behavioral cusps are generativeness (i.e. novel responses to counter stagnation), access to new environments (i.e. technology), and changes in social validity (i.e. new social demands, social media)

Exercise 1.2

In one paragraph, briefly explain if and how social media can be considered a behavioral cusp.

Answers can be found at the end of the module

Now watch this video

Human development: Erikson's life stages

<https://www.youtube.com/watch?v=OZCvth3mODM> [13:17]



In the next two modules, we explain the concept and importance of executive functioning skills and learn how to assess and improve each of the 11 skills.

REMINDER

Have you completed the following exercises?

- Exercise 1.1
- Exercise 1.2

Tick each box when you have completed the exercises. Then you can move on to the next module.

SUMMARY

1. Child development theories are important in the understanding of the factors and stages involved in the developmental processes so that it can be applied in practice.
2. Piaget's cognitive development model has been the most influential system and consists of four stages, namely sensorimotor, pre-operational, concrete operational, and formal operational phases.
3. Erikson's psychosocial child development theory included six phases until adolescence, based on needs-based conflicts in different stages of a child growth as they look for trust, autonomy, purpose, competence, and identity.
4. Bowlby's attachment theory proposed that the influence of a primary caretaker on a child's development has profound effects on their attitudes and behavior into adulthood.
5. Watson's behaviorism theory suggested that most child behavior is based on learning and conditioning.

6. Other notable child development theories include Bandura's social learning theory, Vygotsky's sociocultural theory, and Freud's psychosexual theory.
7. More recently, developmental models have become more unified, aiming to include the interactions between different aspects of child development rather than emphasizing one at a time as the previous theories.
8. The concept of behavioral cusp has become more prominent as there is a growing recognition that some environmental, social, value, and norm changes can trigger a cascade of behavioral and developmental changes that has not been expected.

NEXT STEPS

Well done! You have completed Module 1. Now, move on to module 2 where we introduce the concept of executive functioning skills, explain its importance in a child's daily life and start looking at how to improve each function, which is continued in module 3.

EXERCISE ANSWERS

EXERCISE 1.1. ANSWERS

Explain why you think Piaget's work is important for people working with children and adolescents.

Piaget's work is significant to people who work with kids because it enables them to understand that children's development is based on stages. Therefore, the construction of identity and thinking patterns of children got the attention that did not exist before. He shed new light underlying processes of intelligence and reasoning and established a theoretical basis within developmental psychology for educational practices. As such, it was the first clinical method that studied children about their thinking. Although many feel that the concept of stages in child development fails to capture all the complexities, it laid the foundation for later unified systems of child development. Moreover, his theory questioned the possibility of speeding up the acquisition of cognitive-stage milestones, a goal often found in curriculum design. Another example of the value of the cognitive development model is Piaget's emphasis on active involvement in learning, which favors process-oriented education instead of product-oriented methods. So, his theories centered on structured development, observation, using multiple learning aids, and providing as much a wide range of experiences as possible.

EXERCISE 1.2. ANSWERS

In one paragraph, briefly explain if and how social media can be considered a behavioral cusp.

A behavioral cusp is a behavior or change in behavior that enables or sets in motion more pronounced changes. Social media is a perfect platform and technological tool to allow changes in behavior, regarding communication patterns, interests, self-presentation, and other habits. As such, social media use often triggers a sequence of significant behavior changes that can change a young person's views, perspectives, and behavior completely in a short period. It often acts as a compounding effect on existing beliefs and habits, and as such, can facilitate a new base of support and kinship, or exacerbate current issues such as depression, anxiety, low self-esteem, and aggression