

# Cognitive and Social Development

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WATS

## Outline

- ▶ Cognitive Development
  - ▶ Piaget
  - ▶ Vygotsky's Sociocultural Theory of Development
- ▶ Social Development
  - ▶ Erikson's Theory of Psychosocial Development
  - ▶ Attachment Theory
  - ▶ James Marcia's Identity Statuses

## Jean Piaget

- ▶ PhD in biology
- ▶ Got a job administering intelligence tests to children
  - ▶ Intrigued by children's mistakes
  - ▶ Realized errors were systematic and reflective of the child's reasoning

## Schema

- ▶ **Schema:** Mental representation of the world
- ▶ Piaget: Schemas affect how a person makes sense of the world and learns new things
  - ▶ Learning consists of changes in schemas
- ▶ Piaget proposed four stages of cognitive development
  - ▶ Each stage represents a different schema from the previous stage
  - ▶ Learning builds on previous understanding

## Characteristics of Piaget's Stages

- ▶ Advancement to a new stage represents a qualitative change in thinking
- ▶ Children progress through the stages in exact order
  - ▶ However, there are individual differences in the rate of passing through stages
- ▶ Children of all cultures progress through the same stages in the same order

## Piaget's Stages of Development

Stage	Age* (years)	Key Characteristic
Sensorimotor	0-2	Thinks via senses
Pre-Operational	2-7	Can use mental symbols Thinks unidirectionally Egocentric
Concrete Operations	7-11	Thinks concretely Reversibility
Formal Operations	11+	Thinks abstractly

**Operations:** Mental representations of actions that obey logical rules

## Sensorimotor Stage

- ▶ **Sensorimotor:** Infants understand the environment from physical actions (senses and movement)
  - ▶ Newborns interact with the environment via natural reflexes
  - ▶ Reflexes become more adaptive as infants learn to apply movements to achieve a goal
- ▶ Two key achievements at the end of the Sensorimotor stage
  - ▶ Engage in goal-directed actions
  - ▶ Object Permanence

## Sensorimotor Stage: Object Permanence

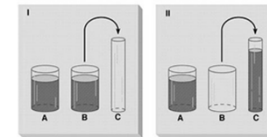
- ▶ **Object Permanence:** Object exists even when one cannot sense it → Mental symbolism
  - ▶ **Phase 1:** If an object disappears, will not search for it
  - ▶ **Phase 2:** Only search for object if partially hidden or the object is taken while the child was engaged
  - ▶ **Phase 3:** A-not-B Error
  - ▶ **Phase 4:** Continue to search for an object until it is found

## Characteristics of Thinking at the Pre-Operational Stage

- ▶ *Elijah throws a phone and it hits my face. I say, "Elijah, that hurt me." Elijah says, "But it didn't hurt me."*
- ▶ **Egocentrism:** Failure to distinguish others' viewpoints from one's own
  - ▶ Difficulty taking another person's points of view
- ▶ **Unidimensionality:** Focus only on one dimension of a problem

## Conservation

- ▶ **Conservation:** Physical properties of an object stay the same despite superficial changes in appearance
  - ▶ Performance on the conservation tasks reflects the presence or absence of mental operations



## Concrete Operational Stage

- ▶ **Concrete Operations:** Perform mental operations on concrete objects
- ▶ Children in concrete operations understand:
  - ▶ **Reversibility:** Operations are reversible and the object will keep the same properties despite transformations
    - ▶ If pour the water back into the original glass, there will be the same amount
  - ▶ **Class inclusion:** One category can be included in another

## Class Inclusion: Pre-operational

- ▶ E: What is your nationality?
  - ▶ C: I am Swiss [Nigerian]
- ▶ E: How come?
  - ▶ C: Because I live in Switzerland
- ▶ E: Are you also Genevan? [a Plateau Man]
  - ▶ C: No, that is not possible. I am already Swiss, I cannot also be Genevan.

Quoted from Miller (2002)

## Formal Operational Stage

- ▶ **Formal operations:** Mental operations can also be applied to abstract concepts
- ▶ Individuals in Formal Operations can:
  - ▶ Think abstractly
    - ▶ *What would have happened if the British had not colonized Nigeria?*
  - ▶ Plan a systematic approach to solving a problem
    - ▶ *Determine which mixture of five colorless liquids produces a yellow color.*

## Contributions of Piaget to the study of Development

- ▶ Children are actively learning
- ▶ Children do not think like adults
- ▶ Wrong answers are very helpful in the learning process

## Vygotsky's Sociocultural Theory of Development

- ▶ Russian Renaissance man
- ▶ Began studying psychology at age 28 and died of tuberculosis at age 38
- ▶ Under pressure to create a theory of education in line with Marxism
- ▶ Russian government suppressed his ideas
- ▶ Not widely published until after the Cold War ended

## Vygotsky's Principles of Development

- ▶ Development is studied by examining the process of change
  - ▶ Zone of Proximal Development
- ▶ Cognitive development cannot be separated from the culture
  - ▶ Socio-cultural Theory of Development
- ▶ Thinking is transformed through the use of tools
  - ▶ Psychological Tools

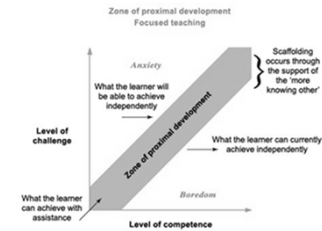
## Vygotsky's Zone of Proximal Development

**Vygotsky's Zone of Proximal Development:** Range of tasks that a child can not do alone but can accomplish when assisted by a more skilled partner

- |                 |   |  |
|-----------------|---|--|
| Very Difficult  | } | <b>Zone of Impossibility.</b> Task is too difficult for the child to do at all. Teacher must do the task for the child.                        |
| Task Difficulty | } | <b>Zone of Proximal Development.</b> Task requires thinking just above the child's current mastery. The child can learn with help from others. |
| Very Simple     | } | <b>Mastery Zone.</b> Task is very simple. No help is needed. No new knowledge is learned.  |

## Zone of Proximal Development (ZPD)

- ▶ The ZPD is where real learning is possible because the task is above the child's current level of mastery, but still within reach
  - ▶ Instruction should always be aimed at a child's ZPD.
- ▶ The ZPD is continually changing as children practice and master new skills

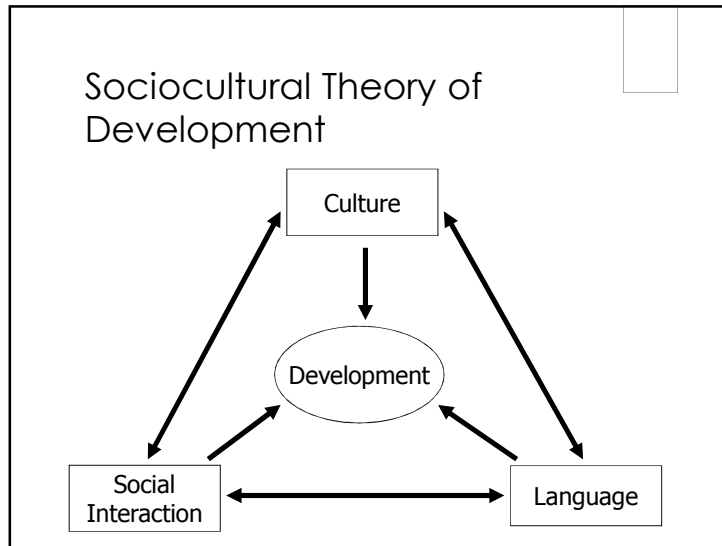


## Scaffolding

- ▶ To assist in learning within a child's ZPD, the teacher should provide scaffolding
  - ▶ **Scaffolding:** Assistance by a more skilled person that allows a child to complete a task they cannot do independently
- ▶ Types of Scaffolding
  - ▶ Adapting content or learning materials to children's developmental level
  - ▶ Modeling
  - ▶ Questions

## Scaffolding

- ▶ **Scaffolding:** Assistance by a more skilled person that allows an individual to complete a task they cannot do independently
- ▶ Types of Scaffolding
  - ▶ Modeling
  - ▶ Questions
  - ▶ Adapting materials



### Sociocultural Theory of Development

- ▶ **Culture:** Attitudes, values, customs, and behavioral patterns that characterize a social group
- ▶ Culture influences:
  - ▶ What is thought about
  - ▶ Skills to be acquired
  - ▶ How to acquire information
  - ▶ The tools and symbols available to facilitate development and thinking
  - ▶ When a person is allowed to participate in an activity
  - ▶ Who is allowed to participate in an activity

### Sociocultural Theory of Development

- ▶ Language is necessary for abstract thinking
  - ▶ Language symbols provide freedom from the immediate perceptual, concrete context
- ▶ Roles of Language
  - ▶ Provide cognitive tool to think about problems
  - ▶ Allow to regulate and reflect on thinking
  - ▶ Enables social interaction
- ▶ **Private speech:** Use of language to plan and direct behavior, particularly in difficult tasks
  - ▶ Also called self-directed speech

### Sociocultural Theory of Development

- ▶ Social Interactions
  - ▶ Complex thinking has its roots in social interactions
  - ▶ Learning new skills results from guidance by a more skilled person who structures the learning process
    - ▶ ZPD

## Psychological Tools

- ▶ **Tool:** Something that can be used in the service of something else
  - ▶ **Technical Tools:** Change and control objects
  - ▶ **Psychological Tools:** Change thought and control behavior
    - ▶ Language system
    - ▶ Number system
    - ▶ Writing system
- ▶ According to Vygotsky, **language** is the most important psychological tool

## Erik Erikson

- ▶ Father abandoned before born
- ▶ Worked as a teacher for children of Freud's patients
- ▶ Studied Native Americans on reservations
- ▶ Took surname of Erikson, symbolizing full attainment of sense of identity

## Erikson's Stages of Psychosocial Development

- ▶ Maturation and culture's expectations create eight crises that the individual must resolve for healthy development
  - ▶ Cultural demands change as a child ages
- ▶ Development continues throughout the lifespan
  - ▶ Main goal in life is the search for identity
    - ▶ **Identity:** Understanding and accepting one's self and society
- ▶ Eight psychosocial stages throughout the lifespan influence identity

## Erikson's Stages of Psychosocial Development

- ▶ **Psycho:** Mental processes
- ▶ **Social:** Relating to society
- ▶ Each stage is characterized by a crisis
  - ▶ **Crisis:** Psychosocial challenge that presents opportunities for development
    - ▶ Positive resolution leads to growth
    - ▶ Negative or no resolution leads to maladjustment

Stage	Age	Primary Event
Infancy	0-1	
Early Childhood	2-3	
Preschool	3-5	
School Age	6-11	
Adolescence	12-20	
Young Adults	Mid-20s	
Adulthood	25-60	
Old Age	60+	

### Erikson's Stages of Psychosocial Development

Stage	Age	Primary Event	Crisis
Infancy	0-1	Feeding	Trust vs. Mistrust
Early Childhood	2-3	Toilet Training	Autonomy vs. Shame & Doubt
Preschool	3-5	Independence	Initiative vs. Guilt
School Age	6-11	School	Industry vs. Inferiority
Adolescence	12-20	Peer relationships	Identity vs. Role Confusion
Young Adults	Mid-20s	Loving relationships	Intimacy vs. Isolation
Adulthood	25-60	Parenting	Generativity vs. Stagnation
Old Age	60+	Reflection & acceptance of life	Ego Integrity vs. Despair

- ### Erikson's Stages of Psychosocial Development
- ▶ Stage 1: Trust vs. Mistrust
    - ▶ **Primary Event:** Feeding
    - ▶ **Positive Resolution:** Trust in the world based on basic needs being met

- ### Attachment Theory (Bowlby)
- ▶ **Thesis:** The quality of attachment an infant has with his/her primary caregiver influences relationships throughout life
    - ▶ **Secure Attachment:** Sensitive caregiving provides a "secure base" for infants to explore
    - ▶ **Insecure Attachment:** Inconsistent or unresponsive caregiving leads to adoption of maladaptive views of themselves and the world, leaving a child at risk for social, emotional, and behavioral problems throughout the rest of their lives



## Erikson's Stages of Psychosocial Development

- ▶ Stage 2:  
Autonomy vs. Shame and Doubt
  - ▶ **Autonomy:** Self-control
  - ▶ **Primary Event:** Toilet training
  - ▶ **Positive Resolution:** Self-confidence based on encouragement
- ▶ Stage 3:  
Initiative vs. Guilt
  - ▶ **Initiative:** Willingness to try new activities
  - ▶ **Primary Event:** Independence
  - ▶ **Positive Resolution:** Allowed to explore the environment

## Erikson's Stages of Psychosocial Development

- ▶ Stage 4:  
Industry vs. Inferiority
  - ▶ **Industry:** Doing things that others value
  - ▶ **Primary Event:** School
  - ▶ **Positive Resolution:** Productive work and successful experiences
- ▶ Stage 5:  
Identity vs. Role Confusion
  - ▶ **Identity:** Integrated sense of self; answering the question: Who am I?
  - ▶ **Primary Event:** Peer relationships
  - ▶ **Positive Resolution:** Strong sense of identity and plans for the future

## James Marcia's Identity Status

- ▶ Reflects the degree to which an individual has (1) explored and (2) committed to an identity
- ▶ Identities are needed in a variety of domains
  - ▶ Vocation (Career)
  - ▶ Religion
  - ▶ Politics
  - ▶ Relationship choices
  - ▶ Ethnicity and Culture

## James Marcia's Identity Status

		Committed?	
		Yes	No
Exploring?	Yes	Identity Achievement	Identity Moratorium
	No	Identity Foreclosure	Identity Diffusion

Stages 6-8				
Stage	Crisis	Definition	Primary Event	Positive Resolution
6	Intimacy vs. Isolation	<b>Intimacy:</b> Close committed relationship with someone	Loving relationships	Able to self-disclose with another
7	Generativity vs. Stagnation	<b>Generativity:</b> Desire to create things in the world that will outlive you	Parenting	Acts of caring beyond the self
8	Ego Integrity vs. Despair	<b>Ego Integrity:</b> Life has had order and meaning; acceptance of one's life	Reflection & acceptance of one's life	Satisfaction about the past