DEVELOPMENTAL PSYCHOLOGY
SEMINAR II (MARCH 4, 2022)
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CONTENTS OF THE SEMINAR

1) Developmental theories in general

2) Cognitive development (Piaget´s theory of cognitive development)

3) Psychosocial development (Erikson´s psychosocial theory)
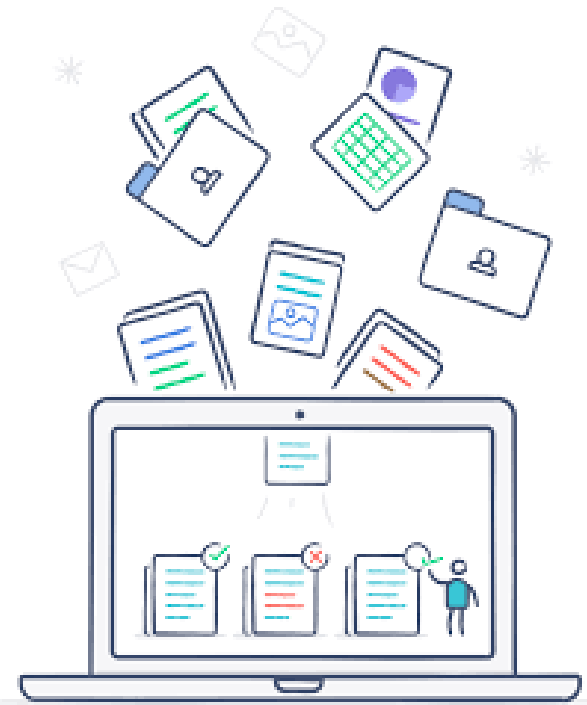
Developmental Theories

Psychological development is a:

◦ **regular process**, composed of consecutive phases; that have typical, invariant order

◦ **holistic process** involving somatic, psychological and social components (and their interactions)

◦ **continuum of gradual changes;** differentiation and integration of processes and properties leads to the emergence of qualitatively new forms that alter the nature of interaction and stimulate further development

XXX

◦ **Is not completely fluent and uniform;** preparatory phases can be recognized; there are also periods of latency or periods of cumulative changes - development leaps (e.g. Sexual development)

◦ **Is individually specific -** general principles "apply" only in general

Developmental milestones

Signal more significant change in some areas of development

(more often the accumulation of changes)

Biological

(body growth, CNS maturation, motor changes, hormonal changes; examples: walking alone, development of secondary sexual characteristics)

Psychological

(changes in mental capacity, changes caused by learning, changes in self-concept; examples: language acquisition, the onset of specific operations stage,…)

Social

(defining of new roles, "transition rituals" – e.g. entering school, first ID card, retirement bill…)

Example of accumalation of changes: School maturity

Sensitive and critical phases

Sensitive phase:

In this phase person is significantly more receptive to stimuli of a certain kind and set up better to integrate them

Examples: speech development, development of the ability to establish bilateral emotional relationship (see attachment)

Critical phase:

This term express the fact that certain stimuli are necessary at certain stages – process of learning cannot be "completed" later

Example: imprinting period

Transitions between stages
and
developmental (transitional) crises

Development does not have to be smooth, there may appear a "tension" between the „new" and the „old"

Different concepts of crisis – crisis as:

- ◦ result of an **unmanaged development task**
- ◦ **„Period between"** two stable phases
- ◦ time of **uncertainty** in „new" …
- ◦ subjectively perceived **motivation for change**

predictable developmental (transitional) crises have a different character than irregular personal or social crises - their mastery is a **developmental task**

Types of periodization

o *„life-span"*

     (e.g. E. Erikson – 8 stages)

o **focused on certain part of life** (usually considered as significant – commonly childhood)

     (e.g.: S. Freud – Psychosexual Development; M. Mahler – Separation-Individuation Theory)

Focused on development of a certain function, system, property … aspect of life – emotional development, cognitive development, moral development

(e.g.: J. Piaget, L. Kohlberg)

Eclectic „life-span" periodization
(according to Vágner, 2005, 2007)

Periods:

◦ Prenatal

◦ Newborn (0-4 weeks)

◦ Nursling (4 weeks – 1 year)

◦ Toddler (1 – 3 years)

◦ Preschool period (3- 6 years)

◦ School age – younger, middle, older

◦ Adolescence

◦ Adulthood – young (20-40), middle (40-50), older (50-60)

◦ Senior age– early (60-75), genuine(75 and more)

Cognitive development

# Cognitive functions

Specific cognitive functions:

- Perception

- Attention

- Memory

- Language

- executive functions

What are they usefull for:

- Learning

- Memorization

- symbolic and abstract thinking

- organizing information

- information processing

Cognitive Development – Refers to the changes that occur in children's mental skills and abilities over time.

Cognition

Preceiveing

Reasoning

Evaluating

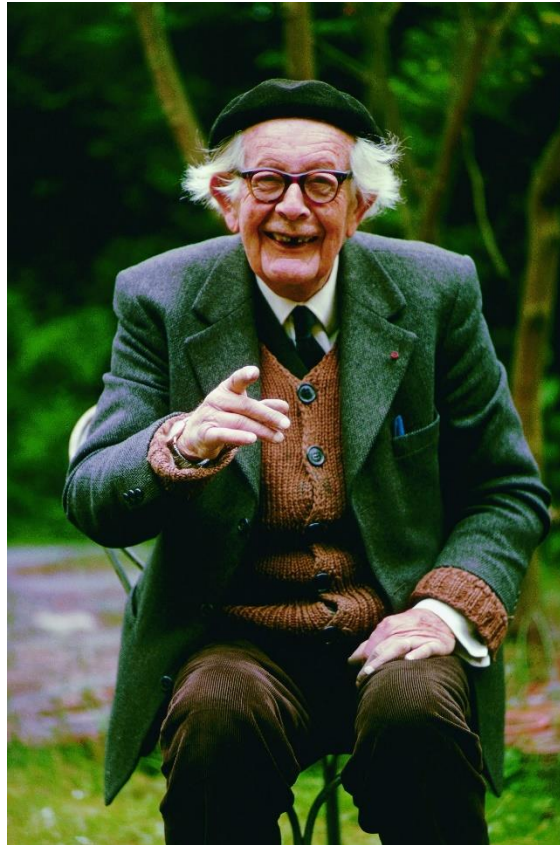Judging

Learning

Remembering
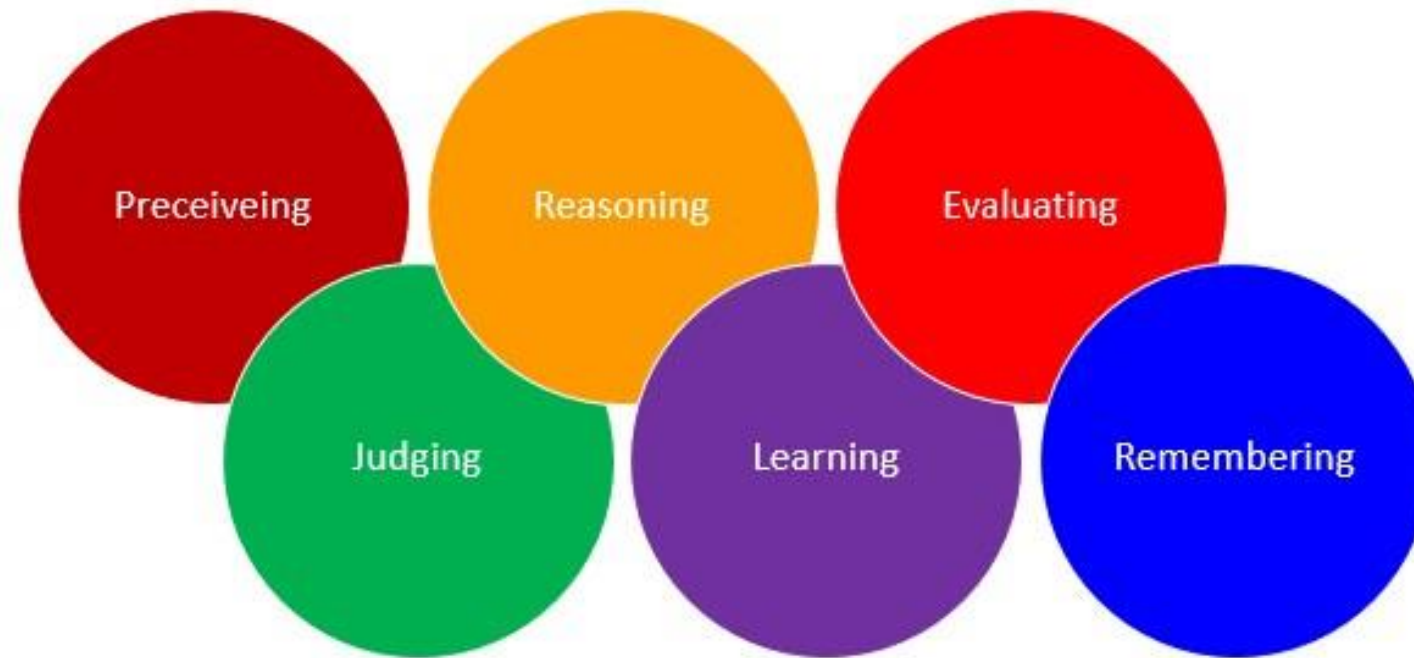
Intelligence

A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings—"catching on," "making sense" of things, or "figuring out" what to do.

Source: https://web.archive.org/web/20141222052006/http://www.udel.edu/educ/gottfredson/reprints/1997mainstream.pdf

Piaget´s theory of cognitive development

Jean Piaget (1896 – 1980)

➢Swiss psychologist and biologist

➢Published first paper at 10; earned his doctorate in natural sciences at 21

➢His theory was based also on observation of his own three kids

➢He worked for decades on understanding children's cognitive development and invented most widely known theory of cognitive development.

➢His theory is based on constructivism.

➢Construstivism = Assumption that learning is an active process of construction rather than a passive assimilation of information or rote memorization.

➢Individuals **construct** their understanding and learning is a **constructive** process
   ➢Child needs to be active in the learning proces as opposed to simply absorbing info from a teacher, book, etc.
   ➢The child is a **'little scientist'** constructing understandings of the world largely alone

Core terms in proces of learning

(Cognitive) Schema: basic building block that enables us to form a mental representation of the world *(e.g. every animal with four legs is a dog*)

The process of adaptation (a*daptation*- invariant process of change in schemas)**:**

Assimilation: process of fitting new information into existing cognitive schemas *(e.g. child sees a horse and thinks it is a „dog")*

Accomodation: process of revising existing cognitive schemas, perceptions, and understanding so that new information can be incorporated *(e.g. mother explains to child that if animal is tall, does „íhááá" and somebody sits on it´s back it is adifferent animal called horse)*

Equilibration: Equilibrium occurs when a child's schemas can deal with most new information through assimilation. Children are driven or motivated to learn when they are in disequilibrium (because they want to understand things)
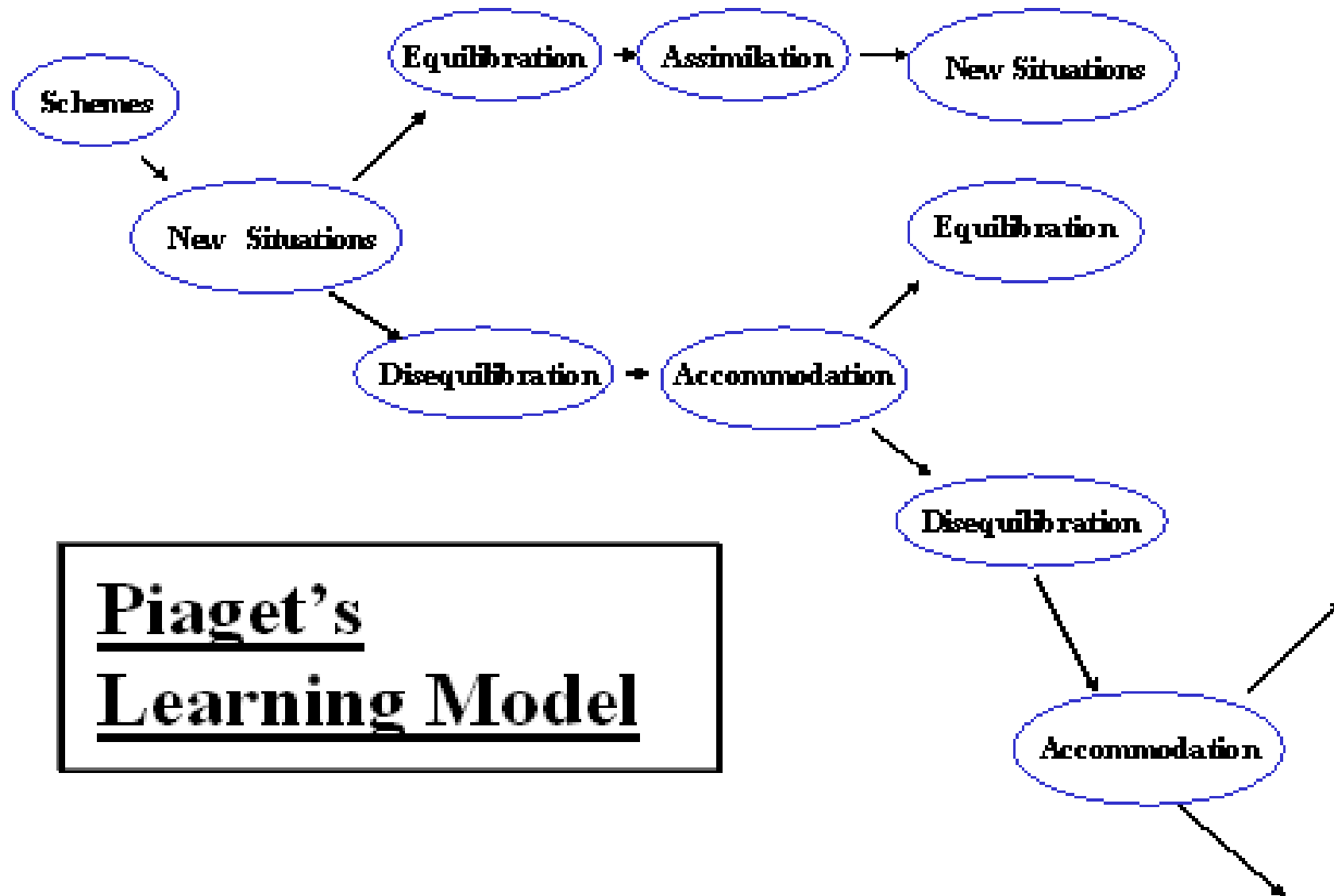
Piaget's Learning Model

Stages of cognitive development

➢ A child's capacity to understand certain concepts is based on the child's developmental stage

➢ Cognitive development can only happen when child is biologically prepared.

➢ All children develop according to four stages:

> ➢ age may vary some

> ➢ everyone goes through the stages in the same order

> ➢ transitions from stage to stage may occur abruptly and kids do differ in how long they are in each stage
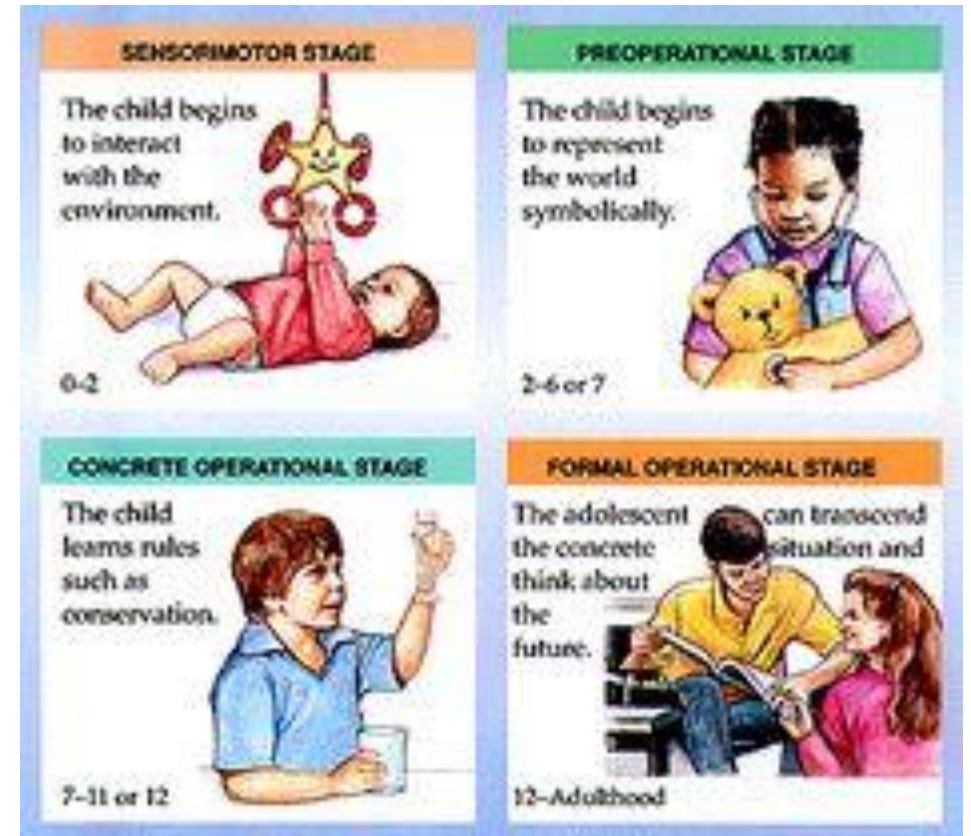
Stages of cognitive development

The 4 stages:

1. Sensorimotor (birth –2 years)

2. Preoperational (~2-7)

3. Concrete operational (~7-11)

4. Formal operations (~12-15)

Mnemonic for four stages ☺
Sometimes Piaget Can Frustrate!

Sensorimotor Stage (0-2)

The child:

- **Explore the world through senses & motor activity** (learn about the world using senses - seeing, hearing, tasting, feeling, smelling and motor skills - grabbing, stroking, pushing, kicking. Is attracted to facing, music and things that move)

- Early on, baby can't tell difference between themselves & the environment

- If they can't see something then it doesn't exist

- Begin to understand cause & effect

- Can later follow something with their eyes

- **<u>Object Permanence</u>** – knowledge that an object continues to exist

independent of our seeing, hearing, touching, tasting or smelling it!
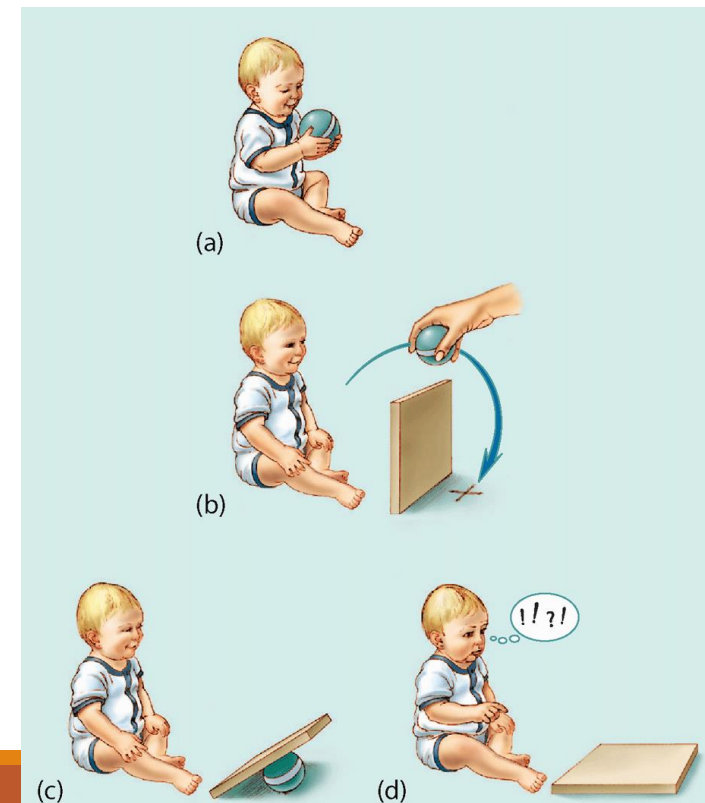
Major Accomplishments of the Sensorimotor Period

Object Permanence	Mental Representations	Symbol System
Begins with no visual or manual search	Mental Representations cannot be held in mind: " Out of Sight is Out of Mind"	No use of symbols
Searches for partially concealed objects	Mental Representations are beginning to be able to be held in mind	Emergence of rudimentary symbols
Searches for completely concealed objects	Mental Representations are able to be held in mind	Representations are coded with symbols: gestures & sounds
Searchers after visible displacement	Mental Representations can be held in mind but their external existence is tentative	Symbols are becoming more complex and are more linguistic
Searches after hidden displacement	Mental Representations can be held in mind and they are secure	Symbolic Function is Achieved: Gestures and Language

Preoperational Stage (2-7)

Divided into 2 subperiods:
◦ The Preconceptual (2-4)
◦ The Intuitive (4-7)

Major Characteristic:

o Symbolic Functioning evidenced by language

o Imaginative play

o Increase in deferred imitation

o Symbolization

o Acceleration of language

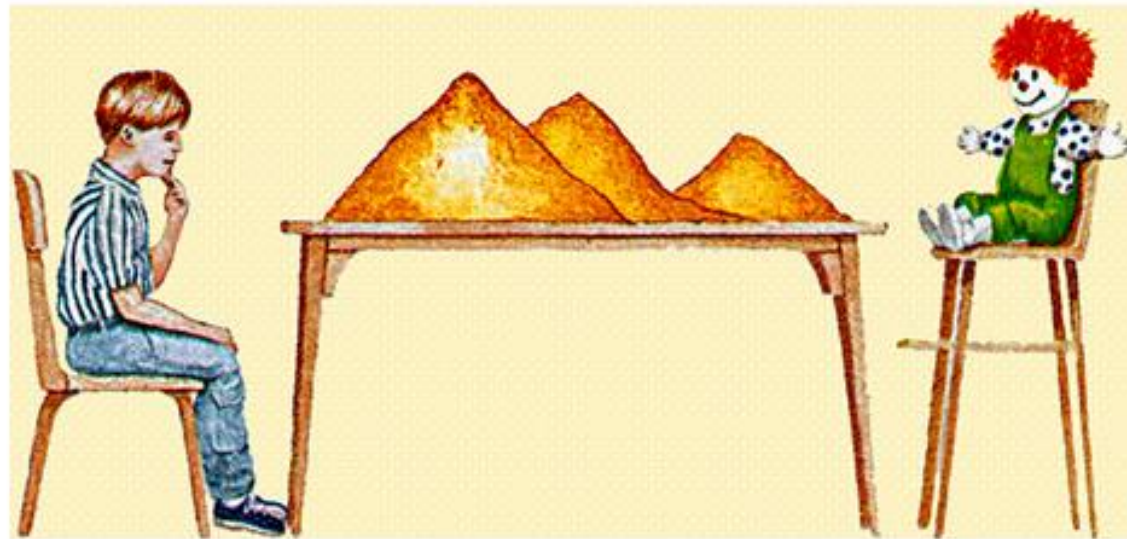"Cut it up into a LOT of slices, Mom, I'm really hungry!"

Preoperational Thought is Characterized by the Following

- Egocentrism
- Centration
- State Fixation
- Unstable Equilibrium
- Irreversibility
- Transduscive Reasoning

Egocentrism (4 yrs)

Papalia, Human Development, 7e. Copyright © 1998. McGraw-Hill Companies, Inc. All Rights Reserved.

Piaget's Mountain Task

Draw how the mountains would look from the doll´s point of view
https://www.youtube.com/watch?v=OinqFgsIbh0

Piaget's Demonstration of Preoperational Thinking Errors: Conservation Tasks

- Conservation of Volume

- Conservation of Mass

- Conservation of Number

- Conservation of Length

https://www.youtube.com/watch?v=gnArvcWaH6I

Type of conservation	Initial presentation	Manipulation	Preoperational child's answer
Number	Two identical rows of objects are shown to the child, who agrees they have the same number.	One row is lengthened and the child is asked whether one row now has more objects.	Yes, the longer row.
Matter	Two identical balls of clay are shown to the child. The child agrees that they are equal.	The experimenter changes the shape of one of the balls and asks the child whether they still contain equal amounts of clay.	No, the longer one has more.
Length	Two sticks are aligned in front of the child. The child agrees that they are the same length.	The experimenter moves one stick to the right, then asks the child if they are equal in length.	No, the one on the top is longer.
Volume	Two balls are placed in two identical glasses with an equal amount of water. The child sees the balls displace equal amounts of water.	The experimenter changes the shape of one of the balls and asks the child if it still will displace the same amount of water.	No, the longer one on the right displaces more.
Area	Two identical sheets of cardboard have wooden blocks placed on them in identical positions. The child agrees that the same amount of space is left on each piece of cardboard.	The experimental scatters the blocks on one piece of cardboard and then asks the child if one of the cardboard pieces has more space covered.	Yes, the one on the right has more space covered up.

The Concrete operational stage (7-11)

- The child begins to reason logically, and organize thoughts coherently. However, it cannot handle abstract reasoning.

- children begin to process complex concepts such as numbers and relationships but they need **concrete examples** to understand these concepts.

- There is the ability to perform multiple classification tasks, order objects in a logical sequence, and comprehend the principle of conservation.

- The child is capable of concrete problem-solving. Some reversibility now possible (quantities moved can be restored such as in arithmetic: 3+4 = 7 and 7-4 = 3, etc.)

- Class logic-finding bases to sort unlike objects into logical groups where previously it was on superficial perceived attribute such as color.   Categorical labels such as "number" or animal" now available.

The Formal Operations Stage

Mental actions performed on ideas and propositions. Can reason logically about hypothetical processes and events that may have no basis in reality.

Child is:

◦ able to think about hypothetical situations

◦ Form & test hypotheses

◦ Organize information

◦ Reason scientifically

Characteristics of Formal Operational Thought

Abstract	Idealistic	Logical
Adolescents think more abstractly than children. Formal operational thinkers can solve abstract algebraic equations, for example.	Adolescents often think about what is possible. They think about ideal characteristics of themselves, others, and the world.	Adolescents begin to think more like scientists, devising plans to solve problems and systematically testing solutions. Piaget called this type of logical thinking hypothetical-deductive reasoning.

Piaget's Stages of Cognitive Development

Sensori-motor stage

- 0-2 years old
  - Intelligence in action: child interacts with the environment by manuipulating objects

Pre-operational

- Preconceptual 2-4 years old
  - Thinking domimnated , but child becomes more capable of symbolic functioning:language development occurs.

- Intuitive 4-7 years old
  - Child still unduly influenced by own perception of environment

Concrete operation

- 7-11 years old
  - Logical reasoning can only be applied to objects that are real or can be seen.

Formal Operations

- 12 years old -up
  - Individual can think logically about potential events or abstract ideas.

Piaget´s theory & Education

➢ The child can only learn certain things when he is at the right developmental stage

➢ Development will happen naturally through regular interaction with social environment

Criticism of Piaget´s theory

➢Underestimating children's abilities

➢Cognitive development across domains is inconsistent (e.g. better at reading than math)

➢Studies have shown that development can to some degree be accelerated

8 stages of psychosocial development
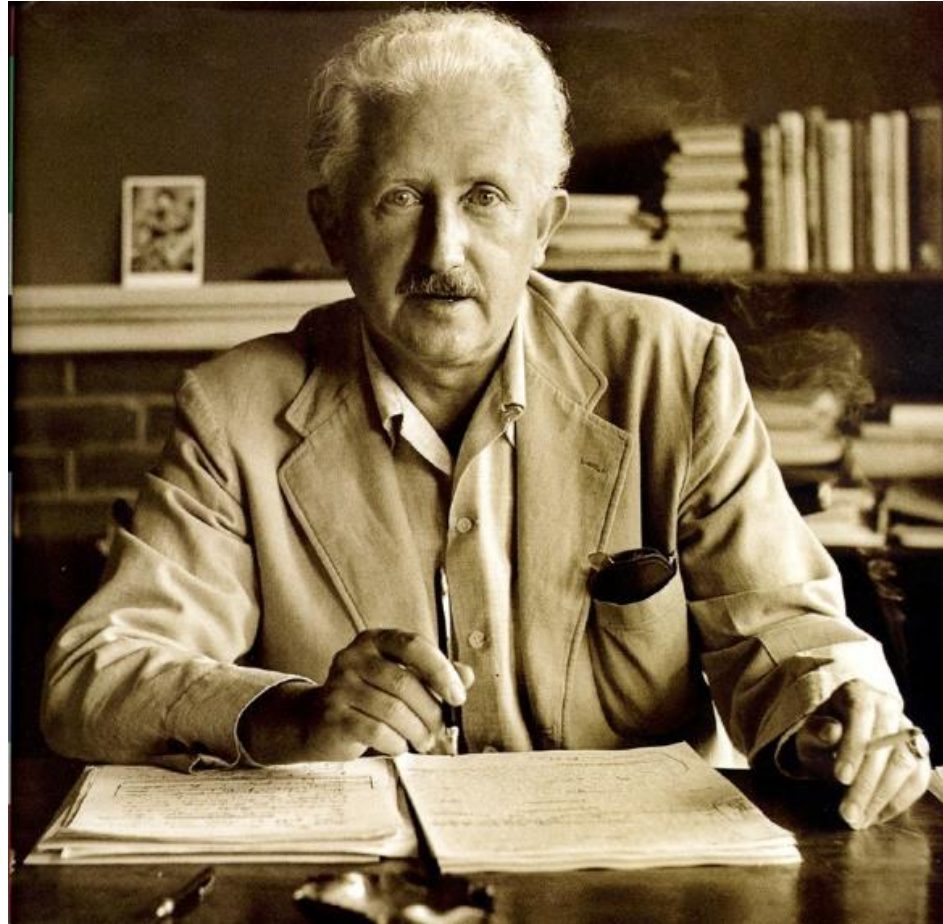
Erik Homburger Erikson

E.H. Erikson – basic concepts

➢Epigenetic principle

➢Development Crisis

➢The development task, "virtues"

➢Conflict

➢Identity

Erikson's Stages of Psychosocial Development

Stage	Psychosocial Crisis/Task	What Happens at This Stage?
1	Trust vs Mistrust	If needs are dependably met, infants develop a sense of basic trust.
2	Autonomy vs Shame/Doubt	Toddlers learn to exercise will and do things for themselves, or they doubt their abilities.
3	Initiative vs Guilt	Preschoolers learn to initiate tasks and carry out plans, or they feel guilty about efforts to be independent.
4	Industry vs Inferiority	Children learn the pleasure of applying themselves to tasks, or they feel inferior.
5	Identity vs Confusion	Teenagers work at refining a sense of self by testing roles and then integrating them to form a single identity, or they become confused about who they are.
6	Intimacy vs Isolation	Young adults struggle to form close relationships and to gain the capacity for intimate love, or they feel socially isolated.
7	Generativity vs Stagnation	The middle-aged discover a sense of contributing to the world, usually through family and work, or they may feel a lack of purpose.
8	Integrity vs Despair	When reflecting on his or her life, the older adult may feel a sense of satisfaction or failure.

Early childhood (from birth to 18 months)

Child completely dependent on care

(especially maternal)

Trust X Mistrust

Trust is build through physical care (breastfeeding, feeding), availability of caregiver, warmth, contact, expressions of love

Mistrust arises from rejection, inappropriate care, unpredictability or unavailability of the caregiver

Toddler (around 18 months -3 years)

Child learns "to do things independently" - to decide itself, to control it´s own body

autonomy X doubts and shame

Autonomy is related to the development of self-confidence, self-awareness

Doubts and feelings of shame usually arise from over-protective or restrictive parenting behavior

Pre-school age (about 3 - 6 years)

Child begins to be creative, rapid advancement of fantasy appears, interest in the world broadens, social contact deepens

Initiative X guilty

Development of one's own **initiative** is related to whether parents give the child the freedom to play, imagine and ask questions

The **feelings of guilt** are a reaction to criticism, prohibitions, insults, humiliation

Moral development implies a balance between initiative and guilt

School age (around 6 - 12 years)

Child is naturally realistic, performance focused, ready to learn systematically, fulfill the tasks, compete

industry X inferiority

Industry is supported by feelings of success, appreciation of constructive activities …

Feelings of inferiority are based on the predominance of signals about child deficiencies and their inferiority of their performance

Adolescence (approx. 12 – 19 years)

Pivotal period in Erikson's concept. In this period skills and plans for the future are combined by building one's own identity.

Identity X role confusion

The **sense of identity** is related to internal stability, but presupposes the possibility of experimenting; it is also related to finding a "place" in the sense of a role that does not force a person to embezzle themselves („feel the way I am")

Confusion of roles is often related to the fact that one does not sufficiently
separated his personal identity from the family,
poor professional plans, with a vague idea of
himself

Young adulthood (approx to 25 years)

A typical life theme is formation of a family

Intimacy X Loneliness

Intimacy means the ability to share experience and life with partner, and to create satisfatory two-sided relationship

Loneliness (social isolation) is associated with feelings of lack of Interest of manifestation of care…

Middle age adulthood(approx 25 years)

Important developmental task is to take care of something - usually offspring, but also a "child" in a more figurative sense - a work beneficial for others ...

Generativity XXX Stagnation

Feelings of life **stagnation** are related to the impossibility of taking care, engaging, "giving something to the world" (for various reasons)

Older adulthood (approx. 65+)

Typical is the "recapitulation" of one's own life history (not only) by balancing

Integrity X despair

Integrity is related to the achievement of a certain life wisdom, serenity, often with a sense of satisfaction from living life

Feelings of **despair** may relate to unfulfilled life, but may also be related to the losses that aging and old age accompanies

Basic conflicts and dominants of identity

Trust / Mistrust

"I'm what I can rely on ..."

Autonomy / Shame & Doubt

„I am what I can do on my own "

Initiative / Guilt

„I am what I am asking about"

Industry/ Inferiority

„I am what I am cappable of"

Erikson's Eight Stages of Psychosocial Development

Stage	Age	Person
Trust vs Mistrust	0 - 18 months	Infant
Autonomy vs Shame & Doubt	18 months - 3 years	Toddler
Initiative vs Guilt	3 - 5 years	Pre-Schooler
Industry vs Inferiority	5 - 13 years	Grade-Schooler
Identity vs Role Confusion	13 - 21 years	Teenager
Intimacy vs Isolation	21 - 39 years	Young Adult
Generativity vs Stagnation	40 - 65 years	Middle-Age Adult
Integrity vs Despair	65 years onwards	Older Adult

source: www.whaddayaknowabout.com

Basic conflicts and dominants of identity

Identity / Role Confussion

„I am what I believe in"

Intimacy / Isolation

„I am what I love"

Generativity / Stagnation

„I am what I am providing"

Integrity / Despair

„I am what will remain after I leave"

Basic conflicts and virtues

Trust / Mistrust —› **hope**

Autonomy / Shame & Doubt —› **willpower, pride**

Initiative / Guilt —› **purposefulness, conscience**

Industry/ Inferiority —› **competence**

Identity / Role Confussion —› **loyalty**

Intimity / Isolation —› **love**

Generativity / Stagnation —› **Ability to care**

Integrity / Despair —› **wisdom, inner peace**