# **HUMAN DEVELOPMENT**

# DEVELOPMENTAL PSYCHOLOGY

is a branch of psychology that attempts to explain the development of humans over time

# DEVELOPMENTAL THEORIES

provide a set of guiding principles and concepts that describe and explain human development

- Infancy (1-2 years)
- Toddler (2-4 years)
- Early school age (5-7 years)
- Middle school age (8-12 years)
- Early adolescence (13-17 years)
- Later adolescence (18-25 years)
- Early adulthood (25-30 years)
- Middle adulthood (30-50 years)
- Later adulthood (50 and up)



# **4 MAIN DEVELOPMENTAL THEORIES**

Freud's Psychosexual Theory

Erik Erikson's Psychosocial Theory

Kohlberg's Moral Development Theory

Jean Piaget's Cognitive Development Theory

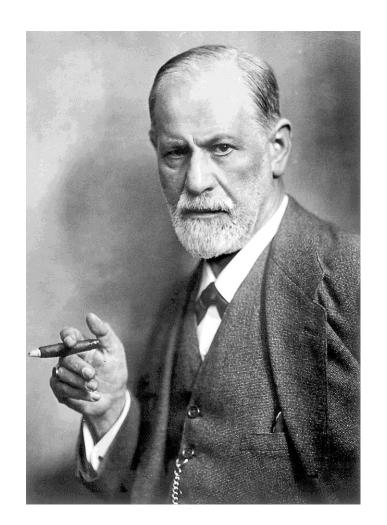
# SIGMUND FREUD

Austrian neurologist, now known as the Father of Psychoanalysis.

Psychosexual theory describes how personality is developed during childhood.

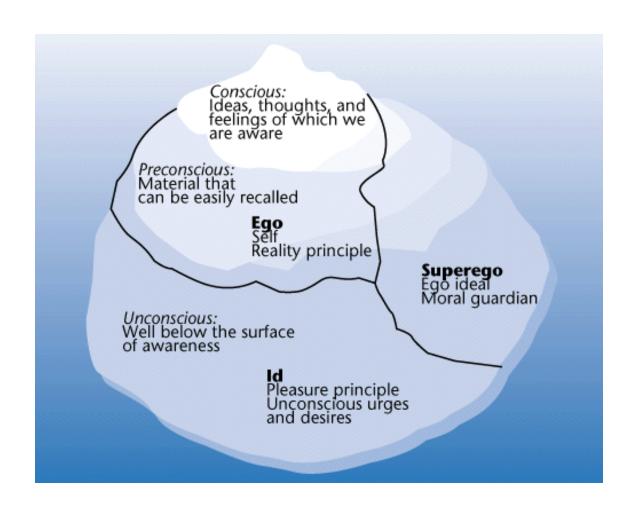
Well-known theory but remains to be very controversial.

Freud believed that personality develops 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 behavior.



Psychosexual 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 behavior later in life.

If these psychosexual stages are completed successfully, the result is a healthy personality. If certain issues are not resolved at the appropriate stage, fixation 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.



The id is the only component of personality that is present from birth.

This aspect of personality is entirely unconscious and includes of the instinctive and primitive behaviors.

According to Freud, the id is the source of all psychic energy, making it the primary component of personality.

The id is driven by the pleasure principle, which strives for immediate gratification of all desires, wants, and needs. If these needs are not satisfied immediately, the result is a state anxiety or tension.

The ego is the component of personality that is responsible for dealing with reality.

According to Freud, the ego develops from the id and ensures that the impulses of the id can be expressed in a manner acceptable in the real world.

The ego operates based on the reality principle, which strives to satisfy the id's desires in realistic and socially appropriate ways. The reality principle weighs the costs and benefits of an action before deciding to act upon or abandon impulses.

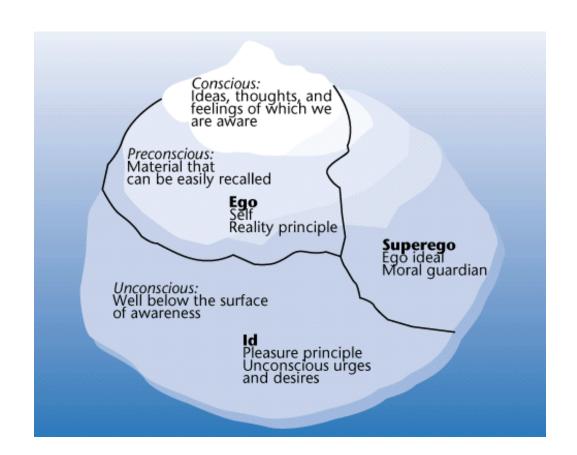
In many cases, the id's impulses can be satisfied through a process of delayed gratification--the ego will eventually allow the behavior, but only in the appropriate time and place.

The last component of personality to develop is the superego.

The superego is the aspect of personality that holds all of our internalized moral standards and ideals that we acquire from both parents and society - our sense of right and wrong.

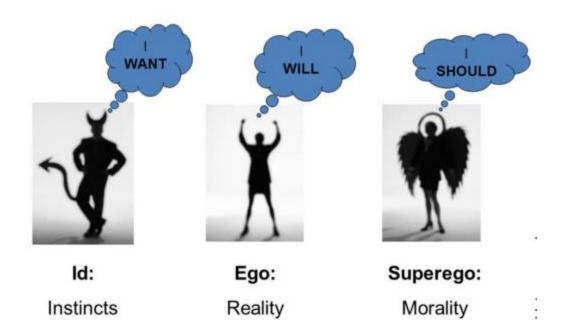
The superego provides guidelines for making judgments.

According to Freud, the superego begins to emerge at around age five.



**Ego strength** to refer to the ego's ability to function despite these dueling forces

The key to a healthy personality is a **balance** between the id, the ego, and the superego.





stage	Age	characteristics	
Oral	0-1yrs	Centre of pleasure; mouth (major source of gratification and explanation)	
Anal	1-3yrs	Source of pleasure: anus and bladder (sensual satisfaction and self control)	
Phallic	3-6yrs	Centre of pleasure: child's genitalia (masturbation) major conflict Oedipus (father) and Electra complex (mother)	
Latency	6-12yrs	Energy directed to physical and intellectual activities, sexual impulses repressed, relationship between peers of same sex	
Genital	12-18yrs	Energy directed towards full sexual maturation and function and development of secondary sexual characteristics	

# **ORAL STAGE (0-1 year)**

The infant's primary source of interaction occurs through the mouth, so the rooting and sucking reflex is especially important.

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**.

# **ANAL STAGE (1-3 years)**

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.** 

Freud believed that positive experiences during this stage served as the basis for people to become **competent**, **productive** and **creative** adults.

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.

### PHALLIC STAGE (3- 6 years)

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.

The term **Electra Complex** has been used to described a similar set of feelings experienced by young girls.

Men and women who are fixated in the Oedipal and Electra stages of their psychosexual development might be considered "mother-fixated" and "father-fixated." In adult life, this can lead to a choice of a sexual partner who resembles one's parent.

Freud attributed the Oedipus complex to children of about the ages three to six. He said the stage usually ended when the child identified with the parent of the same sex and repressed its sexual instincts.

If previous relationships with the parents were relatively loving and non-traumatic, and if parental attitudes were neither excessively prohibitive nor excessively stimulating, the stage is passed through harmoniously.

The superego, the moral factor that dominates the conscious adult mind, also has its origin in the process of overcoming the Oedipus complex. The development of the superego prevents the continuation of the incestuously-oriented relationship, in the form of conscience or perhaps an unconscious state of guilt.

Freud considered the reactions against the Oedipus complex the most important social achievements of the human mind.

# THE STORY OF OEDIPUS

According to one version of the story, Laius, king of Thebes, was warned by an oracle that his son would slay him. Accordingly, when his wife, Jocasta, bore a son, he had the baby exposed (a form of infanticide) on Cithaeron.

A shepherd took pity on the infant, who was adopted by King Polybus of Corinth and his wife and was brought up as their son. In early manhood Oedipus visited Delphi and upon learning that he was fated to kill his father and marry his mother, he resolved never to return to Corinth.

Traveling toward Thebes, he encountered Laius, who provoked a quarrel in which Oedipus killed him. Continuing on his way, Oedipus found Thebes plagued by the Sphinx, who put a riddle to all passersby and destroyed those who could not answer. Oedipus solved the riddle, and the Sphinx killed herself. In reward, he received the throne of Thebes and the hand of the widowed queen, his mother, Jocasta. They had four children: Eteocles, Polyneices, Antigone, and Ismene. Later, when the truth became known, Jocasta committed suicide, and Oedipus (according to another version), after blinding himself, went into exile, accompanied by Antigone and Ismene, leaving his brother-in-law Creon as regent. Oedipus died at Colonus near Athens, where he was swallowed into the earth and became a guardian hero of the land.

# **LATENT STAGE (6- 12 years)**

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.

### **GENITAL STAGE (12- 18 years)**

The individual develops a strong sexual interest in the opposite sex. This stage begins during puberty but last throughout the rest of a person's life.

Where in earlier stages the focus was solely on individual needs, interest in the welfare of others grows during this stage. If the other stages have been completed successfully, the individual should now be well-balanced, warm and caring. The goal of this stage is to establish a balance between the various life areas.

# STRENGTHS & WEAKNESSES OF THIS THEORY

#### **STRENGTHS:**

Importance of early childhood experience

#### **WEAKNESS:**

- 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 behavior 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.

# **ERIK ERIKSON**

German-born American developmental psychologist and psychoanalyst known for his theory on psychosocial development of human beings.

He discusses psychosocial stages. His ideas were greatly influenced by Freud, going along with Freud's (1923) theory regarding the structure and topography of personality.

However, whereas Freud was an **id psychologist**, Erikson was an ego psychologist. He emphasized the role of culture and society and the conflicts that can take place within the **ego** itself, whereas Freud emphasized the conflict between the id and the superego.

# **ERIK ERIKSON**

The ego develops as it successfully resolves crises that are distinctly social in nature. These involve establishing a sense of trust in others, developing a sense of identity in society, and helping the next generation prepare for the future.

Successful completion of each stage results in a healthy personality and the acquisition of basic virtues. Basic virtues are characteristic strengths which the ego can use to resolve subsequent crises.

Failure to successfully complete a stage can result in a reduced ability to complete further stages and therefore a more unhealthy personality and sense of self. These stages, however, can be resolved successfully at a later time.

# **ERIK ERIKSON'S PSYCHOSOCIAL THEORY**

Stage	Psychosocial Crisis	Basic Virtue	Age
1	Trust vs. mistrust	Норе	Infancy ( o to1 ½)
2	Autonomy vs. shame	Will	Early Childhood ( 1 ½ to3)
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+)

#### TRUST VERSUS MISTRUST

### Ages 0- 18 months

During this stage the infant is uncertain about the world in which they live. To resolve these feelings of uncertainty the infant looks towards their primary caregiver for stability and consistency of care.

If the care the infant receives is consistent, predictable and reliable, they will develop a sense of trust which will carry with them to other relationships, and they will be able to feel secure even when threatened.

Success in this stage will lead to the virtue of **hope**. By developing a sense of trust, the infant can have hope that as new crises arise, there is a real possibility that other people will be there are a source of support. Failing to acquire the virtue of hope will lead to the development of fear.

If not successful at this stage, the infant will carry the basic sense of mistrust with them to other relationships. It may result in anxiety, heightened insecurities, and an over feeling of mistrust in the world around them.

#### **AUTONOMY VERSUS SHAME AND DOUBT**

### Ages 18 months to 3 yrs

Children begin to assert their independence, by walking away from their mother, picking which toy to play with, and making choices about what they like to wear, to eat, etc.

The child is discovering that he or she has many skills and abilities, such as putting on clothes and shoes, playing with toys, etc. Such skills illustrate the child's growing sense of independence and autonomy.

It is critical that parents allow their children to explore the limits of their abilities within an encouraging environment which is tolerant of failure.

If children in this stage are encouraged and supported in their increased independence, they become more confident and secure in their own ability to survive in the world.

If children are criticized, overly controlled, or not given the opportunity to assert themselves, they begin to feel inadequate in their ability to survive, and may then become overly dependent upon others, lack of self-esteem, and feel a sense of shame or doubt in their own abilities.

#### **INITIATIVE VERSUS GUILT**

### Ages 3 to 5 yrs

During this period the primary feature involves the child regularly interacting with other children at school. Central to this stage is play, as it provides children with the opportunity to explore their interpersonal skills through initiating activities.

Children begin to plan activities, make up games, and initiate activities with others. If given this opportunity, children develop a sense of initiative, and feel secure in their ability to lead others and make decisions.

Conversely, if this tendency is squelched, either through criticism or control, children develop a sense of guilt. They may feel like a nuisance to others and will therefore remain followers, lacking in self-initiative.

A healthy balance between initiative and guilt is important. Success in this stage will lead to the virtue of **purpose**.

# **INDUSTRY (COMPETENCE) VERSUS INFERIORITY**

### aged 5 to 12 yrs

Teachers begin to take an important role in the child's life as they teach the child specific skills.

It is at this stage that the child's peer group will gain greater significance and will become a major source of the child's self esteem. The child now feels the need to win approval by demonstrating specific competencies that are valued by society, and begin to develop a sense of pride in their accomplishments.

If children are encouraged and reinforced for their initiative, they begin to feel industrious and feel confident in their ability to achieve goals. If this initiative is not encouraged, if it is restricted by parents or teacher, then the child begins to feel inferior, doubting his own abilities and therefore may not reach his or her potential.

If the child cannot develop the specific skill they feel society is demanding (e.g. being athletic) then they may develop a sense of inferiority. Some failure may be necessary so that the child can develop some modesty. Yet again, a balance between competence and modesty is necessary. Success in this stage will lead to the virtue of **competence**.

#### **IDENTITY VERSUS ROLE CONFUSION**

### age 12 to 18 yrs

This is a major stage in development where the child has to learn the roles he will occupy as an adult. It is during this stage that the adolescent will re-examine his identity and try to find out exactly who he or she is.

What should happen at the end of this stage is "a reintegrated sense of self, of what one wants to do or be, and of one's appropriate sex role". During this stage the body image of the adolescent changes.

Erikson claims that the adolescent may feel uncomfortable about their body for a while until they can adapt and "grow into" the changes. Success in this stage will lead to the virtue of **fidelity**.

Fidelity involves being able to commit one's self to others on the basis of accepting others, even when there may be ideological differences.

#### **IDENTITY VERSUS ROLE CONFUSION**

### age 12 to 18 yrs

During this period, they explore possibilities and begin to form their own identity based upon the outcome of their explorations. Failure to establish a sense of identity within society ("I don't know what I want to be when I grow up") can lead to role confusion. Role confusion involves the individual not being sure about themselves or their place in society.

In response to role confusion or **identity crisis** an adolescent may begin to experiment with different lifestyles (e.g. work, education or political activities). Also pressuring someone into an identity can result in rebellion in the form of establishing a negative identity, and in addition to this feeling of unhappiness.

#### INTIMACY VERSUS ISOLATION

### ages 18 to 40 yrs

We begin to share ourselves more intimately with others. We explore relationships leading toward longer term commitments with someone other than a family member.

Successful completion of this stage can lead to comfortable relationships and a sense of commitment, safety, and care within a relationship. Avoiding intimacy, fearing commitment and relationships can lead to isolation, loneliness, and sometimes depression. Success in this stage will lead to the virtue of **love** 

#### GENERATIVITY VERSUS STAGNATION

### ages 40 to 65 yrs

We establish our careers, settle down within a relationship, begin our own families and develop a sense of being a part of the bigger picture.

We give back to society through raising our children, being productive at work, and becoming involved in community activities and organizations.

By failing to achieve these objectives, we become stagnant and feel unproductive. Success in this stage will lead to the virtue of **care**.

#### **EGO INTEGRITY VERSUS DESPAIR**

### Ages 65+ yrs

We tend to slow down our productivity, and explore life as a retired person. It is during this time that we contemplate our accomplishments and are able to develop integrity if we see ourselves as leading a successful life.

Erik Erikson believed if we see our lives as unproductive, feel guilt about our past, or feel that we did not accomplish our life goals, we become dissatisfied with life and develop despair, often leading to depression and hopelessness.

Success in this stage will lead to the virtue of **wisdom**. Wisdom enables a person to look back on their life with a sense of closure and completeness, and also accept death without fear.

# **ERIK ERIKSON'S PSYCHOSOCIAL THEORY**

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# STRENGTHS & WEAKNESSES OF THIS THEORY

#### **STRENGTHS:**

- Grounded on reality
- Covers the entire life span, from infancy to late adulthood
- Considers the importance of society and culture in our development
- Acknowledges the importance of experience

#### **WEAKNESS:**

- Seen as a mere description of each phase of development, does not include the cause of behavior
- Difficult to establish cause (experience in each stage) and effect (behavior)
- Male perspective
- Methodology was mainly anthropologic data, historical data, case studies

# Jean Piaget's Cognitive Development Theory

## What is cognition?

- the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses

# Jean Piaget's Cognitive Development Theory

- He was mainly interested in the biological influences on "how we come to know."
- While working in Binet's IQ test lab in Paris, Piaget became interested in how children think. He noticed that young children's answers were qualitatively different than older children which suggested to him that the younger ones were not dumber (a quantitative position since as they got older and had more experiences they would get smarter) but, instead, answered the questions differently than their older peers because they thought differently.
- To Piaget, cognitive development was a progressive reorganization of mental processes as a result of biological maturation and environmental experience. Children construct an understanding of the world around them, then experience discrepancies between what they already know and what they discover in their environment.

## Schema

- Piaget (1952) defined a schema as 'a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning'.
- In more simple terms Piaget called the schema the basic building block of intelligent behavior a way of organizing knowledge. Indeed, it is useful to think of schemas as "units" of knowledge, each relating to one aspect of the world, including objects, actions and abstract (i.e. theoretical) concepts.
- Wadsworth (2004) suggests that schemata (the plural of schema) be thought of as 'index cards' filed in the brain, each one telling an individual how to react to incoming stimuli or information.

## **Assimilation**

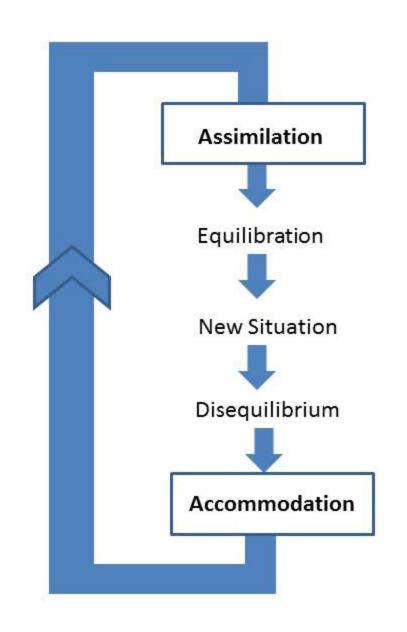
Which is using an existing schema to deal with a new object or situation.

## **Accommodation**

- This happens when the existing schema (knowledge) does not work, and needs to be changed to deal with a new object or situation.

## **Equilibrium**

- Equilibration is the force which drives the learning process as we do not like to be frustrated and will seek to restore balance by mastering the new challenge (accommodation).

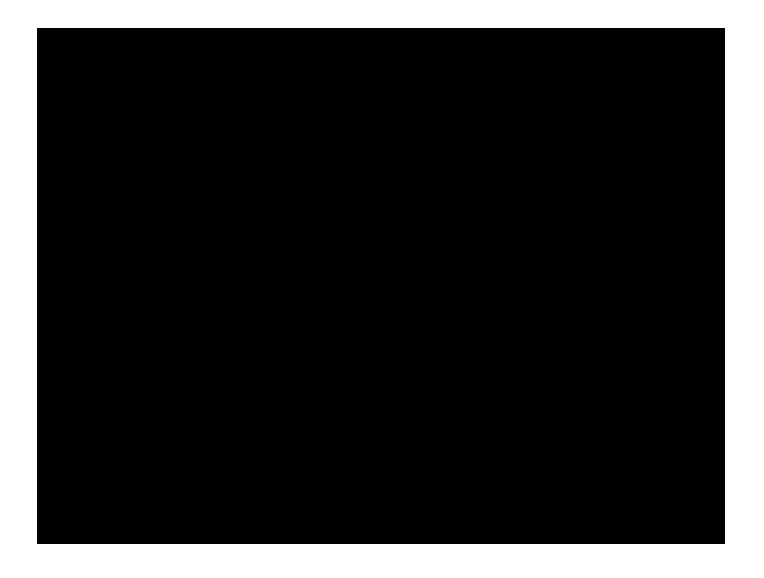


# Cognitive Theories on Learning

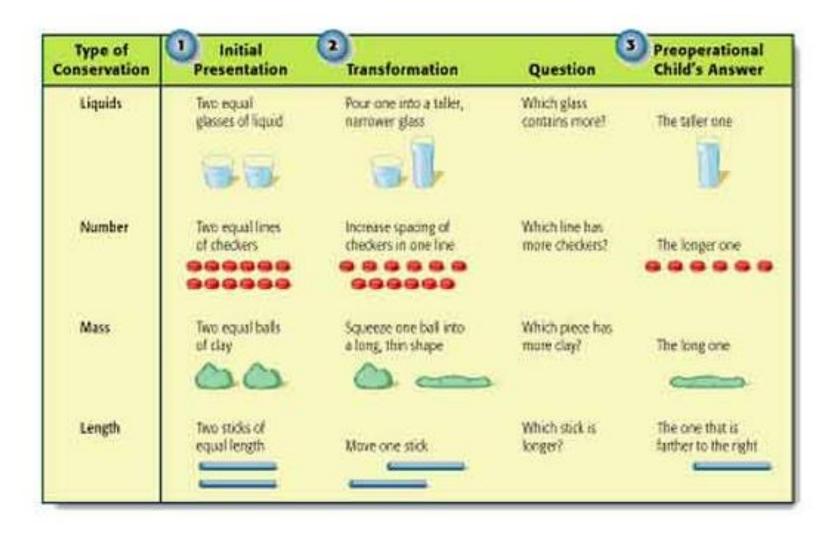
## **Stages of Cognitive Development**

Stage	Age	Description	Developmental Phenomena
Sensorimotor Stage	0-2 years old	Experiencing the world through senses and actions	Object Permanence
Pre-operational Stage	2-6 years old	Representing things with words and images	Pretend Play Egocentrism Language
Concrete- operational Stage	7-11 yrs old	Thinking logically about concrete events and grasping concrete analogies	Conservation Mathematical transformation
Formal-operational Stage	12- adulthoood	Thinking about hypothetical scenarios and processing abstract thoughts	Abstract Logic Moral Reasoning

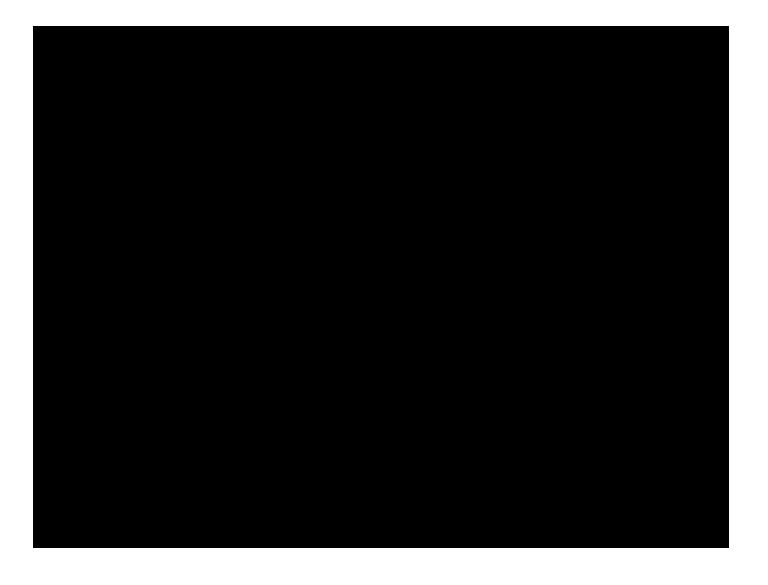
# Egocentrism



## Conservation



# Conservation



#### STRENGTHS:

- He changed how people viewed the child's world and their methods of studying children.
- Significant contributions to the fields of education (teaching and learning)
  - extremely influential in developing educational policy and teaching practice in the UK
  - the notion of "readiness
  - centrality of play and discovery in children's learning
  - teachers are to "facilitate" learning, not "direct

### **WEAKNESSES:**

- Piaget's methods (observation and clinical interviews) are more open to bias (subjective)
- Studied his own children and the children of his colleagues in Geneva- small sample,
   and composed solely of European children from families of high socio-economic status
- Focused on children, instead of all learners
- Focused on development, and not on learning per se
- Development is not purely dependent on biological maturation, but culture as well
- Schema cannot be directly observed, therefore measured, as it is an internal process (Behaviorism)

#### LAWRENCE KOHLBERG

Was an American psychologist best known for his theory of stages of moral development. Kohlberg began work on this topic while a psychology graduate student at the University of Chicago.

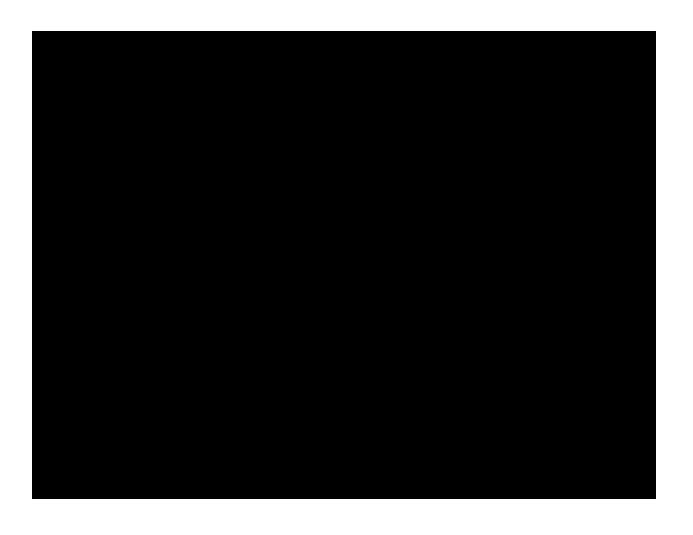
He served as a professor in the Psychology Department at the University of Chicago and at the Graduate School of Education at Harvard University.

Even though it was considered unusual in his era, he decided to study the topic of moral judgment, extending Jean Piaget's account of children's moral development from twenty-five years earlier.

#### LAWRENCE KOHLBERG

He used a storytelling technique to tell people stories involving moral dilemmas. In each case he presented a choice to be considered, for example, between the rights of some authority and the needs of some deserving individual who is being unfairly treated.

The sample comprised 72 Chicago boys aged 10–16 years, 58 of whom were followed up at three-yearly intervals for 20 years (Kohlberg, 1984).



Heinz's wife was dying from a particular type of cancer. Doctors said a new drug might save her. The drug had been discovered by a local chemist and the Heinz tried desperately to buy some, but the chemist was charging ten times the money it cost to make the drug and this was much more than the Heinz could afford.

Heinz could only raise half the money, even after help from family and friends. He explained to the chemist that his wife was dying and asked if he could have the drug cheaper or pay the rest of the money later. The chemist refused, saying that he had discovered the drug and was going to make money from it.

- 1. Should Heinz have stolen the drug?
- 2. Would it change anything if Heinz did not love his wife?
- 3. What if the person dying was a stranger, would it make any difference?
- 4. Should the police arrest the chemist for murder if the woman died?

**Option 1:** Heinz should not steal the drug as it is against the law.

**Option 2:** Heinz should steal the drug to save the wife and accept any prison sentence.

**Option 3:** Heinz should steal the drug to save the wife and should not be given a prison sentence as it is unfair.

#### **Level 1 - Pre-conventional morality**

At the pre-conventional level (most nine-year-olds and younger, some over nine), we don't have a personal code of morality. Instead, our moral code is shaped by the standards of adults and the consequences of following or breaking their rules.

Authority is outside the individual and reasoning is based on the physical consequences of actions.

**Stage 1. Obedience and Punishment Orientation**. The child/individual is good in order to avoid being punished. If a person is punished, they must have done wrong.

**Stage 2. Individualism and Exchange**. At this stage children recognize that there is not just one right view that is handed down by the authorities. Different individuals have different viewpoints.

#### **Level 1 - Pre-conventional morality**

#### **Stage 1. Obedience and Punishment Orientation.**

"I would cheat if I know I wouldn't get caught."

#### Stage 2. Individualism and Exchange.

"I'll let you copy mine if you do my homework."

"What's in it for me?"

### **Level 2 - Conventional morality**

At the conventional level (most adolescents and adults), we begin to internalize the moral standards of valued adult role models.

Authority is internalized but not questioned and reasoning is based on the norms of the group to which the person belongs.

**Stage 3. Good Interpersonal Relationships**. The child/individual is good in order to be seen as being a good person by others. Therefore, answers relate to the approval of others.

**Stage 4. Maintaining the Social Order**. The child/individual becomes aware of the wider rules of society so judgments concern obeying the rules in order to uphold the law and to avoid guilt.

### **Level 2 - Conventional morality**

#### **Stage 3. Good Interpersonal Relationships.**

"I am not going to tell because I want her to like me."

#### **Stage 4. Maintaining the Social Order**.

"You can't do that because the teacher said no."

"I will not steal because it is against the law."

#### **Level 3 - Post-conventional morality**

Individual judgment is based on self-chosen principles, and moral reasoning is based on individual rights and justice. According to Kohlberg this level of moral reasoning is as far as most people get. Only 10-15% are capable of the kind of abstract thinking necessary for stage 5 or 6 (post-conventional morality). That is to say most people take their moral views from those around them and only a minority think through ethical principles for themselves.

**Stage 5. Social Contract and Individual Rights**. The child/individual becomes aware that while rules/laws might exist for the good of the greatest number, there are times when they will work against the interest of particular individuals. The issues are not always clear cut. For example, in Heinz's dilemma the protection of life is more important than breaking the law against stealing.

**Stage 6. Universal Principles**. People at this stage have developed their own set of moral guidelines which may or may not fit the law. The principles apply to everyone. E.g. human rights, justice and equality. The person will be prepared to act to defend these principles even if it means going against the rest of society in the process and having to pay the consequences of disapproval and or imprisonment. Kohlberg doubted few people reached this stage.

### <u>Level 3 – Post- Conventional morality</u>

#### **Stage 5. Social Contract and Individual Rights.**

"In this case, the rule maybe wrong."

#### **Stage 6. Universal Principles.**

"You shouldn't lie because it violates the Golden Rule."

#### STRENGTHS & WEAKNESSES OF THIS THEORY

#### **WEAKNESS:**

#### 1. The dilemmas are artificial

Most of the dilemmas are unfamiliar to most people (Rosen, 1980). Kohlberg's subjects were aged between 10 and 16. They have never been married, and never been placed in a situation remotely like the one in the story. How should they know whether Heinz should steal the drug?

#### 2. The sample is biased

According to Gilligan (1977), because Kohlberg's theory was based on an all-male sample, the stages reflect a male definition of morality (it's androcentric). Mens' morality is based on abstract principles of law and justice, while womens' is based on principles of compassion and care.

#### 3. The dilemmas are hypothetical (i.e. they are not real)

In a real situation, what course of action a person takes will have real consequences – and sometimes very unpleasant ones for themselves. Would subjects reason in the same way if they were placed in a real situation? We just don't know.

The fact that Kohlberg's theory is heavily dependent on an individual's response to an artificial dilemma brings question to the validity of the results obtained through this research. People may respond very differently to real life situations that they find themselves in than they do with an artificial dilemma presented to them in the comfort of a research environment.