

# Psychology 100 Notes

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## **The Transition of Adolescence**

developmental period from puberty to adulthood

Bio-psycho-social shift:

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## Cognitive Changes in Adolescence

Concrete Operational (concrete objects & actions) → Formal Operational  
(systematic, abstract, complex)

- Philosophical inquiry
- Sensation seeking, risk taking, preoccupation with body image and sex
- Role confusion = uncertainty of place in society

## Moral Reasoning

## Social Changes in Adolescence

- Peer social reorganization: Peer relations, Sexual activity, Parent-child relations
- Adult world: acceptance and new expectations:
  - Responsibility, reproduction, self-sustenance, legal, power: adult competition

*Rites of passage* - Social rituals marking transition between developmental stages, esp. childhood → adulthood

## Developmental Challenges of Adults

*Both Growth* (early/middle adulthood) and *decline* (late adulthood)

- Intimacy vs. isolation
- Generativity vs. stagnation
- Ego-integrity vs. despair

*Generativity* - making a commitment beyond oneself to family, work, future generations

*Ego-integrity* - ability to look back on life without regrets and to enjoy a sense of wholeness

NEW CHAPTER

## Sensation and Perception

*Sensation* - sense organs' receptor cells are stimulated, receive, relay stimulus energy information to the brain (for higher processing)

*Perception* - brain elaborates (selects, organizes, synthesizes, interprets)

## **Transduction**

*Receptors* - Specialized neurons that are activated by stimulation and transduce (convert) it into a nerve impulse

*Transduction* - Transformation of one form of energy into another:

- stimulus information → nerve impulses
- stimulus terminates in the receptor

## **Sensory Adaptation and Thresholds**

*Sensory pathway* - Bundles of neurons that carry information from the sense organs to the brain

*Sensory adaptation* - Loss of responsiveness in receptor cells after stimulation has remained unchanged for a while.

## Thresholds

*Absolute threshold* - Amount of stimulation necessary for a stimulus to be detected

*Difference threshold* - Smallest detectable change in a stimulus (“just noticeable difference” -JND)

## How Does Stimulation Become Sensation?

The brain senses the world indirectly:

1. sense organs convert stimulation into the language of the nervous system: neural impulses
2. brain creates the colors, sounds, tastes, odors, textures, and pains that you sense

## Signal Detection Theory

*Signal detection theory* - Perceptual judgement as combination of sensation and decision-making processes (such as motivation)

## Subliminal Perception. . . Persuasion?

*Subliminal perception* - when perception takes place below the threshold of awareness

- Conscious awareness is not necessary for perception
- *Studies have found that subliminal words flashed briefly on a screen can “prime” a person’s later responses*
- *No controlled research has ever shown that subliminal messages delivered to a mass audience can influence people’s buying habits*

## The Senses

- Vision
- Hearing
- Taste
- Smell
- Touch
- Position

- Movement

All the senses . . .

- extract different information about environment (internal or external)
- similar principles:
  - transduces physical stimuli → neural activity
  - more sensitive to change than constant stimulation
  - specialized processing regions in the brain
  - make use of only a fraction of available stimulation

## **The Anatomy of Visual Sensation**

Retina, Photoreceptors (Rods [dim light] and Cones [colors]), Optic nerve,  
Blind spot

## **Vision**

*Visual cortex* - the occipital cortex - where visual sensations are processed