

2016-10-24

Genetics

- **Chromosome** = a bundle of DNA and histones that form a condensed structure in the nucleus
 - Some people experience an irregular number of chromosomes
 - **Trisomy** = three chromosomes in a pair
 - **Monosomy** = only one chromosome in a pair
 - Irregularities usually happen in sex chromosomes(23rd pair)
 - **Turner's Syndrome** = monosomy 23; *only* one X as 23rd pair
 - **Down Syndrome** = trisomy 21
- **DNA(Deoxyribonucleic acid)** = long strand of nucleotide bases that serves to encode hereditary information
 - **Duble Helix** = geometric shape of DNA; described as a ladder that is twisted
- **Histone** = a protein that DNA can wrap around to reduce overall volume
- **Codon** = a group of three nucleotide bases that match with tRNA to assemble proteins
 - 1 codon corresponds to 1 amino acid instruction(INSERT, START, END, etc)
- **Allele** = a specific version of a gene
- **Genotype** = the collection of alleles one possesses
- **Phenotype** = the physical traits you exhibit
- **Dominant Allele** = an allele whose expression takes precedence over that of **recessive** alleles
- **Recessive Allele** = an allele whose expression is inhibited by the presence of a **dominant** allele

Sex-Linked Traits

- **Sex-Linked Traits** = phenotypes involved with the X or Y chromosomes
- typically *recessive* and located on X chromosome
 - Y chromosome actually contains very few genes
- Examples
 - Color blindness
 - Baldness
 - Hemophilia

2016-10-25

Evolutionary Psychology

- **Natural Selection** = a mechanism set forth by Darwin that describes how genetic information can spread through a population if it confers a survival benefit
- **Mutation** = errors in the genetic code
 - Can be caused by faulty replication
- **Evolutionary Psychology** = the study of behavior and mental processes using natural selection as an explanatory mechanism

Nature vs Nurture

- *Is our behavior more a product of our **genetics** or of our **environment**?*
 - **Identical Twins** = two organisms that developed from the same embryo
 - also called **Monozygotic twins**
 - **Fraternal Twins** = two organisms that developed from different fertilized embryos but gestated in same womb
 - also called **Dizygotic twins**
 - **Separated Twins** = identical twins that are separated at birth
 - Useful for studying influence of environment
 - **Adoption Studies** = studies of different children who are raised as if genetically related
 - Useful for studying influence of genetics
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2016-10-27

Behavior Genetics

- **Behavior Genetics** = a term that describes behaviors that are influenced by genetics
- **Temperament** = a unique set of traits about reaction and emotional intensity
- **Heritability** = the proportion of phenotypic variation that can be attributed to genetics

Environmental Influences

- **Culture** = a group of societal expectations and conventions that influence how we think
 - **Norm** = a cultural expectation that is hard to break
 - Similar to a **taboo**
 - **Personal Space** = a “buffer-zone” that is expected between people while interacting
 - **Memes** = units of culture that can spread among the population similar to genes
 - **Dank Meme** = a zesty meme that is masterfully crafted
 - Styles of child-rearing
 - Western parents tend to emphasize *independence*
 - * Results in teenagers hating their adolescence
 - I wish I was dead
 - Non-Western parents tend to emphasize *interdependence*
 - * Stronger sense of “family” or “community”
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2016-11-03

Prenatal Development

- **Developmental Psychology** = the branch of psychology that focuses on the emergence of physical, cognitive, and social capabilities
 - Characterized by multiple **stages**
- **Embryonic Development**
 - **Fertilization** = sperm cell enters egg and merges genetic information
 - **Zygote** = fertilized egg
 - * Rapidly “cleaves” or divides for a period of about two weeks
 - * Eventually turns into an **embryo**
 - **Embryo** = stage after zygote but before **fetus**
 - * Lasts from second week to about second month
 - **Fetus** = organism that develops into a human
 - * Lasts from second month until birth
 - **Teratogens** = any substance that can harm the developing offspring in the womb
 - * **Fetal Alcohol Syndrome(FAS)** = developmental problems caused by excessive consumption of alcohol on the mother’s part
 - Symptoms include mis-sized head or death

Infant Behavior

- **Infant Reflexes** = behaviors hard-coded into the infant's brain
 - Rooting = turns mouth towards anything that touches their face
 - Grasping = fingers will curl around an object placed in their hand
 - Stepping = legs will take steps instinctually if held up
 - Sucking = will place any object near face into their mouth
 - Startle(Moro) = throws arms out, arches back, and grabs onto something
 - Babinski = curls toes when feet are tickled

Sensory Development

- Depth perception
 - Emerges around 6th month
 - **Visual Cliff Experiment** = babies will just crawl off the edge of a fall
 - Sight
 - **Habituation** = a trend of decreasing response when frequency of exposure is increased
 - * Babies get bored with your stupid toys
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2016-11-07

Infancy and Childhood

Physical Maturation

- Physical Maturation = biological processes that develop the organ systems of a baby and increase its size
 - Mostly controlled by *nature*, **not** nurture
 - * Unless the baby is deprived of a nutrients
 - **Developmental Norms** = a set of milestones with expected times-tamps meant to help track progress of physical maturation
 - * Helps to spot problems early so they can be treated

Cognitive Maturation

- Cognitive Development
 - **Infantile Amnesia** = mechanism through which memories of the very earliest memories are not encoded
 - * Thought to be caused by a lack of neural networks used in memory encoding
 - **Cognition** = all mental processes related to thinking, knowing, remembering, and communicating
 - **Schema** = a model stripped of specificity that objects of perception can be categorized as
 - **Assimilation** = explaining perception in terms of developed schemas
 - **Accomodation** = encountering objects that cannot be categorized and generating new schemas

Jean Piaget

- Developed **cognitive development personality theory**
 - 4 states of cognitive development
 - * **Sensorimotor**
 - **Egocentrism** = the inability to view things from a perspective other than their own
 - **Object Permanence** = the understanding that things continue to exist even if they aren't visible
 - **Stranger Anxiety** = fear of unknown people, starts at 8 months
 - **Conservation** = the understanding that aspects of matter like mass or volume are conserved regardless of shape
 - * **Preoperational**
 - * **Concrete Operational**
 - * ****Formal Operational***

2016-11-09

Social Development

Attachment

- **Attachment** = an emotional connection with another person

- Coined by Mary Ainsworth
- Young children try to be close to caregiver
 - * Similarly, they show anxiety when separated
- **Separation Anxiety** = distress resulting from separation from an attached person
 - Especially seen in infants
 - In healthy infants, as long as the parents are in the vicinity, they feel comfortable to engage in risky behavior
 - * Called **secure attachment**
 - In unhealthy infants, they won't feel comfortable unless parent is very near
 - * Called **insecure attachment**
 - * **Avoidantly Attached** = child avoids parent and is fearful
 - * **Anxious Resistant Attachment** = child doesn't avoid parent but isn't comfortable around them
- **Basic Trust** = a feeling that the world is predictable and understandable
 - Coined by Erik Erikson
 - Thought to be formed during infancy
 - * Responsive caregivers
 - * Loving parents
- **Self-Concept** = an understanding of one's traits and worth to others

Harow's Surrogate Mother Experiments

- **Contact comfort** = a feeling induced by touching caregiver
- Monkeys, even when hungry, preferred the contact comfort of a cloth doll to a sustaining wire mother

Early Life

- **Critical Period** = a segment of time in which exposure to certain stimuli result in essential cognitive and physical development
- **Imprinting** = the rapid attachment to those first exposed to
 - Sometimes happens immediately after birth

Methods of Child Rearing

- **Authoritarian** = relies on the assumption that rules will be followed without question

- “Why? Because I said so.”
- **Permissive** = gives leeway to child and buys into their desires—few demands and little punishment
- **Authoritative** = a combination of “demanding” and “responsive”
 - Establishes rules, but willing to justify themselves without demanding unconditional obedience
 - Seen in psychological community as the *best* parenting style
- **Rejecting-Neglecting** = disinvestment in the child
 - Little attention is paid to child
 - Can result in abandonment issues

Adolescence

- **Adolescence** = transition period between childhood and adulthood
- Lasts from **puberty** to socioeconomic independence
- **Puberty** = biological process of sexual and mental maturation
 - When people become capable of reproduction
- **Primary Sex Characteristics** = physical traits that are necessary to reproduction
 - Primarily genitalia
 - **Menarche** = first menstrual period
- **Secondary Sex Characteristics** = physical traits that serve as identifiers for their gender
 - Males
 - * Body hair
 - * Deepening voices
 - Females
 - * Fat redistribution to breasts and hips
 - Both
 - * Pubic hair
- Self-Esteem and Maturation
 - Boys feel more comfortable with their bodies if they mature early
 - Girls feel less comfortable with their bodies if they mature early

Kohlberg's Theory of Moral Development

1. Punishment and obedience orientation
 - Responding to punishment
 2. Naive hedonism
 - Doing things for rewards or favors
 3. Good boy/girl mentality
 - Doing things because of approval by peers and parents
 4. Acceptance of Norms
 - Accepts laws and conventions for what they are: does not question them
 5. Seeking Peaceful Change
 - Continues to obey law; works to change the law within the confines of the law
 6. Self-Actualization
 - Change requires that you disobey the law
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2016-11-14

Erikson's Theory of Social Development

- Based in premise that Natural Selection bred into us the propensity to develop relationships that are beneficial to survival
- Life span segmented into 8 stages
 - Each segment characterized by a different drive and crisis

The Eight Stages

| | Crisis Name | Basic Virtue | Age Range |
|---|--------------------------------|--------------|------------------------|
| 1 | Trust vs Mistrust | Hope | Infancy(0-1.5) |
| 2 | Autonomy vs Shame | Will | Early Childhood(1.5-3) |
| 3 | Initiative vs Guilt | Purpose | Play Age(3-5) |
| 4 | Industry vs Inferiority | Competency | School Age(5-12) |
| 5 | Ego identity vs Role Confusion | Fidelity | Adolescence(12-18) |
| 6 | Intimacy vs Isolation | Love | Young Adult(18-40) |
| 7 | Generativity vs Stagnation | Care | Adulthood(40-65) |
| 8 | Ego Integrity vs Despair | Wisdom | Maturity(65+) |

Carol Gilligan's Ideas About Gender

- Believes that males and females differ fundamentally in the way they relate to larger groups
- Males = more focused on perceiving themselves as individuals
- Females = more focused on drawing connections between things

Independence

- The process of social development results, at least in Western cultures, with the individual beginning to separate from the parents
- Increase in arguments
- **Empty-Nest Syndrome**

Physical Development

- **Menopause** = process by which menstruation stops occurring
 - Women are no longer fertile = cannot become pregnant
- **Alzheimer's Disease** = a slow-developing and irreversible brain disorder
 - Gradual deterioration of cognitive skills
 - * Memory
 - * Reasoning
 - * Language
 - * Physical functions
 - Ultimately results in death
 - Difficult to detect, because cognition naturally decays with age

Cognitive Development

- **Crystallized Intelligence** = accumulated information and encoded memory
 - Tends to increase with age and experience
- **Fluid Intelligence** = ability to reason quickly and in the abstract
 - Tends to decrease with age

Kubler-Ross's Stages of Dying

- A series of steps that occur as one comes to term with the fact that they will die soon
- Stages
 1. Denial
 2. Anger
 3. Bargaining with God
 - What if you're not religious?
 4. Depression
 5. Acceptance of Death