Child Growth and Development
Chapter 2:
A Child’s World:
How We Discover It

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From Papalia, Olds and Feldman
1. Are children active or passive in their development?

- Locke: tabula rosa, society writes onto the slate (passive)
  • Mechanistic, machines respond to the environment
    - Able to predict response to situation
- Rousseau: inherently good (active)
  • Organismic, initiate events, not just react, impetus for change is internal, environmental influences don’t cause development but rather influence
2. Is development continuous or does it occur in stages?

– Mechanistic theorists see development as continuous, consistent underlying processes, prediction of later behaviors from earlier ones
  • Focus on quantitative change
    – Frequency of response versus type of response
  
– Organismic theorists emphasize qualitative change, stage theorists, discontinuous
  • Each stage builds on the previous stage
  • At each stage we cope with different types of problems with different abilities
    – Death
A Shifting Balance

• Early theorists favored organismic or stage approaches to development
  – Freud
  – Erikson
  – Piaget

• Mechanistic view gained support in the 1960’s
  – Learning theorists
    • Watson
1. **Psychoanalytic**

   - **Freud: Psychosexual development**
     - Three hypothetical parts of personality
       - Id, ego, superego
         » Id present at birth seeks immediate gratification
         » Superego develops around 5-6 years, conscience, should/should nots
     - Unconscious motives (conflicts) direct development
     - Stages:
       - Oral (0 – 12 months)
       - Anal (12 months – 3 years)
       - Phallic (3 – 6 years)
       - Latent (6 years to puberty)
       - Genital (puberty through adulthood)
 Psychoanalytic (cont)

- **Erikson: Psychosocial development**
  - Eight stages across lifespan
  - Each stage has a “crisis” to be resolved to be “healthy” and when resolved, virtue
  - Balance of a positive trait with corresponding negative one
    - Positive quality should predominate but negative is needed
  - Emphasis on social and cultural influences
  - First to talk about “identity crisis”
    - Trust versus mistrust (hope) (0 – 1.5 years)
    - Autonomy versus shame and doubt (will) (1.5 – 3 years)
    - Initiative versus guilt (purpose) (3 – 6 years)
    - Industry versus inferiority (skill) (6 – 12 years)
    - Identity versus identity confusion (fidelity) (12 years – young adulthood)
    - Intimacy versus isolation (love) (young adulthood)
    - Generativity versus stagnation (care) (middle adulthood)
    - Integrity versus despair (wisdom) (late adulthood or confronting death)
2. Learning theory

   - Behaviorism
     - Classical conditioning (Pavlov, Watson)
       - Baby Albert
     - Operant conditioning (Skinner)
       - Reinforcement (behavior goes from accidental to intentional)
       - Punishment
       - Positive reinforcement: giving reward
       - Negative reinforcement: removing something not liked
       - Punishment should decrease a behavior

   - Social learning (social cognitive: emphasis on cognitive process are central to development)
     - Bandura: reciprocal determinism, modeling
     - Through feedback on behavior, child develops sense of self-efficacy
3. Cognitive theory
   - Piaget
   - Neo-Piagetian theorists
   - Vygotsky
   - Thought processes and behaviors reflect processes
   - Includes information-processing approach
   - Stage theory
Piaget’s Cognitive-Stage theory (Swiss biologist and philosopher)

- Emphasis on mental processes
- Looked at how children think, not the right or wrong answers they gave
- Four qualitatively different stages
- Seriously underestimated children’s abilities
- Growth occurs as a result of three interrelated processes
  - Organization, adaptation and equilibration
Organization

“schemes”

Adaptation

“assimilation”—take in new information
“accommodation”—modify thinking, more advanced

Equilibration

“striving for stable balance”
• Vygotsky’s Sociocultural theory (Cognitive theory also)
  – Russian psychologist 1900’s focused on social and cultural process that guide children’s cognitive development
  – Language is an expression of what a child knows
  – Language is essential to learning and to think about the world
  – **ZPD, zone of proximal development**
    • Gap between what child is able to do and what they are not quite ready to do by themselves (proximal = nearby)
  – **Scaffolding**: temporary support to give to a child
Information-Processing Approach (Cognitive theory)

How the brain processes information

- Sensory input (something you see, hear, taste, smell, touch)
- Behavior as a result of sensory input
  - Sensation
  - Perception
  - Cognition
  - Action or behavior
- Stimulus and response

Actively thinking about the world

Not a stage theory

Changes observed as a result of:

- Speed
- Complexity
- Efficiency of mental processing
- Amount of material stored
- Variety of material stored

Separate physical structures for conscious and unconscious memory

Indicative of later intelligence based on efficiency of sensory perception and processing
4. Contextual perspective
   – Understood in the social context
     • Vygotsky is also contextual
   – Bioecological theory
     • Bronfenbrenner (American psychologist)
     • Development occurs bidirectionally
     • Five interlocking contextual systems
       – Microsystem
       – Mesosystem
       – Exosystem
       – Macrosystem
       – Chronosystem
Bronfenbrenner’s Bioecological Theory

- Model #1
- Model #2
Pattern of activities
– Roles
– Personal relationships
– Home
– School
– Workplace
– Neighborhood
Mesosystem

– Interaction of two or more microsystems
  • How does home interact with school?
    – Family participation?
    – Open house?
    – Parent conferences?
    – PTA?
  • How does family interact with peer group?
    – Parties? Play dates?
Exosystem

- Linkages of two or more settings
- Parents and work
- Parents and social networks
- Affects child indirectly
- Educational system
- Community and government agencies
- Transit system
- Shopping centers
- Mass media
- Religious hierarchy
Macrosystem

- Cultural patterns
- Dominant values
- Beliefs
- Customs
- Political systems
- Economic systems
Chronosystem

– Time
– Degree of stability in child’s world
– Degree of change in child’s world
  • Family composition
  • Place of residence
  • Parents’ employment
  • Wars
  • Economic cycles
  • Waves of migration
– Changes in family patterns
  • Working mothers
  • Extended-family household
5. Evolutionary/Sociobiological perspective

- **Wilson, influenced by Darwin**
  - Anthropology
  - Ecology
  - Genetics
  - Ethology
  - Evolutionary psychology
- Explanations of adaptation, survival, value of behavior for individuals or species
- Darwin: survival of the fittest and natural selection
  - Evolved mechanisms (morning sickness)
  - Evolutionary developmental psychologists apply evolutionary principles to child development
• No one theory of human development is universally accepted
• No one theoretical perspective explains all facets of development
• No more “grand theories”
  – Freud and Piaget
• More smaller, limited “minitheories”
• Theories grow out of research
  – Behaviorist, social learning, and information-processing researchers
Research Methods

- Quantitative research (easier to measure, based on scientific method, conducted in controlled settings)
  - Objectively **measurable** data
    - Objective: like a camera, something everyone would agree on
    - Subjective: influenced by my own experiences, “What I look for, I will find”
  - Things with numbers, distance, times
    - Level of fear before surgery
  - Strengths and weaknesses

- Qualitative research (more open-ended, richer, conducted in everyday settings)
  - Interpretation of nonnumerical data
    - Nature of my experiences
    - Quality of my experiences, feelings, or beliefs
      - Description of fear before surgery
  - More flexible and informal
  - Less structured and systematic
  - Strengths and weaknesses
    - Indepth, great detail, rich source of insights
    - Less rigorous, more subject to bias
• **Scientific method**
  1. Identify a problem to be studied
  2. Formulate hypotheses
  3. Collect data
  4. Analyze data to see if hypothesis supported
  5. Disseminate findings
• **Sampling**
  
  – **Size**
    • Too small doesn’t generalize
    • Too big is costly and time consuming
  
  – Adequately represent the population it will be used for
    • If looking at the effects of chocolate on women, wouldn’t collect data on men and then apply it to women
  
  – **Random selection**
    • Ensures representation
    • Difficult to obtain in large population
    • May not apply to the population as a whole
      – When looking at study habits of college students, if looking at MJC, may not apply to all college students across United States
        » Stanford
        » Chico
        » Humboldt State
        » Brown
        » Harvard
Forms of Data Collection

1. Self-reports
   - Diaries, interviews, questionnaires
   - Broad picture
   - People willing to participate in interviews or questionnaires are not representative of general population
   - People may not be honest
   - People may not have thought about question so response isn’t necessarily accurate or what person would say a day later after reflection (think of better response later)
   - People may forget
   - People may consciously distort
   - People may unconsciously distort
   - How question asked, who asks question (social and religious influence), order of question and tone of question can affect answer
     - If question at the end of lengthy questionnaire, may not get accurate response
   - When questions about sexual habits or drug use, need anonymity to be “honest”
2. Naturalistic and Laboratory Observation

- Naturalistic observation is where children are observed in their real-life settings
  - Environment not modified or altered
  - HIGHLY PREFERRED FOR EARLY CHILDHOOD

- Laboratory observation
  - Manipulate environment
  - Control environment

- Neither explain why children do something
- Observer has bias, “What you look for, you will find”
3. Behavioral and Performance Measures
   - Mechanical and electronic devices
     • Less subjective than self-reports or personal observation
       – Fatigue and self-confidence affect results
   - Intelligence tests
     • Valid: measures what it says its measuring
     • Reliable: consistent from one time to another
     • Standardized: same scoring and criteria for all test-takers
       – Not, “Well, I think the child meant to say…or meant to point to…or meant to…”
     • Operational definitions: very important!!
       – Recent example in Washington, DC: If you say “pregnant woman” does that mean “pregnant teen”?
   - Cognitive neuroscience
     • MRI, PET, seeing the brain in action
     • Developmental cognitive neuroscience focuses on how cognitive growth occurs at brain interacts with environment
     • Social cognitive neuroscience bridges brain, mind, and behavior
       – Blending of:
         » Cognitive neuroscience
         » Social psychology
         » Information-processing
     – Memory and attention influences attitudes and emotions
     – Identify brain systems involved in schizophrenia, anxiety, phobias, learning disorders
Basic Research Designs

• **Case study**: one person or one family (Osbournes or Housewives of Orange County)
  – Rich but not generalizable
  – Doesn’t explain “why”

• **Ethnographic studies**
  – Patterns of relationships, customs, beliefs, technology, arts, and traditions that make up a society’s way of life
Safety pin on clothing to protect fetus during eclipse
Pierced ear to hold club, shaved teeth to demonstrate attachment to culture
Women carry wood long distances, barefoot
Technology: Cell phone on the beach, Mombasa
• **Correlational Studies**
  – Looking for a statistical relationship between two variables
    • One positively increases
      – The more violent television watched, the more aggressive the child
    • One negatively decreases
      – The more education, the less dementia (Alzheimer’s)
    • Correlations help to predict
    • Correlations do NOT tell the cause (but they may suggest)
      – Correlation is not causation
Experiments

- Controlled procedure, manipulating variables
  - What type of television watched, how many hours watched, socioeconomic status, two-parent homes versus one-parent home, reason for one-parent home

- Experimental group (receives treatment, reading instruction)
  - Independent variable can be manipulated
    - Influences the dependent variable

- Control group (do not receive treatment, no reading instruction)
  - Dependent variable may or may not change as result of independent variable

- Random assignment ensures equal opportunity for all groups
  - Blind study
  - Double blind study
• **Laboratory, Field, and Natural Experiments**
  • **Laboratory:** manipulate variables, control the conditions
    • Degree of control is higher
    • Degree of generalizing is lower
    • Looking for cause and effect, easier to replicate
  • **Field experiment:** more difficult to control the conditions, outside influences
    • Degree of control is lower
    • Degree of generalizing is higher
  • **Natural experiment, correlation, unable to manipulate variables (HIV positive children)**
Developmental Research Designs

• **Cross-sectional study** (dominate the field of study)
  - Children of different ages assessed at one time, example: what is a woman doing for 3-, 4-, 5-, 6-year-olds
    - Limited in application
    - Overlooks individual differences when seen with the group
    - Results may reflect cohort differences (internet)
    - Speed and economy

• **Longitudinal study**
  - Same people followed for a long time
    - Time-consuming, expensive
    - Attrition (people die, move, no longer want to participate, researchers graduate from graduate programs)
    - Biased: those who stay have above average intelligence and SES, repeated testing, investment in outcome

• **Sequential design**
  - Blending of two, taken at 2 or more events
Collaborative Research

• Researchers use various means to share and pool data
  – Archiving data sets for use by other researchers
  – Meta-analysis
    • Systematic overview of the research on a topic
  – Collaborative research by multiple researchers at multiple sites
    • Makes possible larger, more representative samples
    • Makes it easier to carry out longitudinal studies
    • Challenge: need for group consensus on all aspects of the research that can be cumbersome and may require difficult compromises
Ethics of Research

• Researchers should be guided by *three* principles:
  – **Benefit** to participants and minimize harm
  – **Respect** for participants’ autonomy and protection of those who are unable to exercise their own judgment
  – **Justice**, inclusion of diverse groups
• Right to informed consent
  • Children cannot give
• Avoidance of deception
  • Withhold information only when it is essential to the study
• Right to self-esteem
  • Some studies have a built-in failure factor
• Right to privacy and confidentiality
  • Some ethical issues do not have a clear answer but rely on researchers’ judgment
Little Albert

Developmental considerations of children in research

- Younger children vulnerable to:
  - Stressful or unfamiliar situations
  - Absence of parent or caregiver
  - Situations arousing inappropriate shame, guilt, or embarrassment
  - Coercion, deception, or unreasonable demands

- Older children vulnerable to:
  - Apparent approval or disapproval by researcher
  - Sense of failure, threats to self-esteem
  - Expressed or implied comparisons with others
  - Implied racial, ethnic, or SES biases
  - Threats to privacy
We Develop Based On:

- Family traditions
- Family values
- Relationships with others
- Where we play
- What we play with
- Cultural responsibilities
- Educational expectations
- Educational opportunities
- Family employment
- Where we live
- Parental relationships
- Methods of transportation
- History
Watching cookies bake
Value of person with disabilities in a family, in society
Family dances
Responsibility for others
Girls’ rights, the right to attend school
School, Mwala Village
Preschool, Mwala
Where we live, Machakos hills
Parent relationship
Transportation
History: Fort Jesus, slave storage, Mombasa
“A failure is not always a mistake, it may simply be the best one can do under the circumstances. The real mistake is to stop trying.”

B.F. Skinner