Child Development #1: Infancy
Developmental Milestones
Physical (average age attained)

- 1 month
- 4-6 months
- 7 months
- 10 months
- 12-15 months
- 24 months
- 24 months
- 36 months
- 48 months
- Lift head
- Sit unassisted
- Roll over
- Crawl
- Walk
- Walk up steps-upstairs
- Jump in place
- Ride tricycle
- Hop on one foot
Motor Skills-Summary

Age 2-up stairs w/o help

Age 3-tricycle, copies circle

Age 4-hops, copies square

Age 5-skips, copies triangle
## Developmental Milestones

**Fine Motor (average age attained)**

<table>
<thead>
<tr>
<th>Age</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 months</td>
<td>Grasp objects disappear</td>
</tr>
<tr>
<td>9 months</td>
<td>Pincer grasp</td>
</tr>
<tr>
<td>14 months</td>
<td>Scribbles</td>
</tr>
<tr>
<td>18 months</td>
<td>Tower of 4 blocks</td>
</tr>
<tr>
<td>24 months</td>
<td>Imitates a vertical line</td>
</tr>
<tr>
<td>36 months</td>
<td>Copies an O</td>
</tr>
<tr>
<td>48 months</td>
<td>Copies a +</td>
</tr>
</tbody>
</table>
Developmental Milestones
Social/ personal (average age attained)

- 1-2 months
- 7-9 months
- 7-18 months
- 12 months
- 18 months
- 24 months
- 36 months
- 48 months

- Social smile
- Stranger anxiety
- Separation anxiety
- Drinks from a cup
- Uses a spoon,
- Puts on clothing,
- Dresses with supervision
- Dresses without supervision
Developmental Milestones
Language (average age attained)

- 4-6 months
- 12 months
- 18 months
- 24 months
- 36 months

- Babbles
- Speaks real first word
- Names common objects
- Two-word sentences
- Says first and last names, colors
The Nature of Stages

• Epigenetic principle of development:
  – stages are sequential
  – mastery of stage required for successful development
  – failure to master $\Rightarrow$ maladjustment
  – based on Erikson

• Actual development may follow a variable sequence from one stage to other
  – ie some babies walk before they crawl
Stages of Development

- Infancy (first ~18 months)
  - birth until able to speak words
- Toddler (~1 to 3 years)
- Preschool (~3 to 6 years)
- School Age (~6 to 12 years)
- Adolescence (~12 to ?? years)
Theoretical Perspectives

- Neurologic
- Cognitive (Piaget)
- Psychosexual (Freud)
- Psychosocial (Erikson)
- Separation/Individuation (Mahler)
- Attachment (Bowlby)
- Temperament (Chess)
- Transactional
Neurological Development

• Rapid maturation and growth
  – Inborn reflexes: Moro, rooting, Babinski, endogenous smiling, orients to voice
  – 8 weeks: see shapes and colors
  – 16 weeks: stereoscopic vision, holds head up
  – 40 weeks: sits alone, pulls up to stand
  – 52 weeks: walks with hand held
  – 15 months: walks alone, crawls stairs

• Forms foundation for psychological development
<table>
<thead>
<tr>
<th>Stage</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Stage</td>
<td>0 to ~1 1/2 years</td>
</tr>
<tr>
<td>Anal</td>
<td>~1 1/2 to 3 years</td>
</tr>
<tr>
<td>Phallic/Oedipal</td>
<td>~3 to 5-6 years</td>
</tr>
<tr>
<td>Latency</td>
<td>~5-6 to 11-12 years</td>
</tr>
</tbody>
</table>
Oral stage

The first stage wherein the infant's mouth is the focus of libidinal gratification (pleasure of feeding at the mother's breast, and from the oral exploration of his or her environment) the tendency to place objects in the mouth. The infantile ego is forming during the oral stage; two factors contribute to its formation: (i) in developing a body image, he or she is discrete from the external world, the child understands pain when it is applied to his or her body, thus identifying the physical boundaries between body and behaviors that satisfy some needs (ii) experiencing delayed gratification leads to understanding that specific behaviors satisfy some needs (crying gratifies certain needs).
Weaning the first feeling of loss consequent to losing the physical intimacy of feeding at mother's breast. Weaning increases the infant's self-awareness that he or she does not control the environment, and learns of delayed gratification, which leads to the formation of the capacities for independence by passivity, gullibility, immaturity, unrealistic optimism, which is manifested in a manipulative personality consequent to ego malformation.
Anal stage

The second stage, where in the infant's erogenous zone changes from the mouth to the anus. Toilet training is the child's key anal-stage experience, occurring at about the age of two years, and results in conflict between the Id (demanding immediate gratification) and the Ego (demanding delayed gratification) in eliminating bodily wastes. The style of parenting influences the resolution of the Id–Ego conflict, which can be either gradual and psychologically uneventful, or which can be sudden and psychologically traumatic.
The ideal resolution of the Id–Ego conflict is in the child's adjusting to moderate parental demands that teach the value and importance of physical cleanliness and environmental order, thus producing a self-controlled adult. If the parents make immoderate demands of the child, by over-emphasizing toilet training, it might lead to the development of a compulsive personality, a person too concerned with neatness and order. If the child obeys the Id, and the parents yield, he or she might develop a self-indulgent personality characterized by personal slovenliness and environmental disorder, might develop a weak sense of Self, because it was the parents' will, and not the child's ego, who controlled the toilet training.
Phallic stage

The third stage wherein the child's genitalia are his or her primary erogenous zone. It is in this third infantile development stage that children become aware of their bodies, the bodies of other children, and the bodies of their parents; they gratify physical curiosity by undressing and exploring each other and their genitals, and so learn the physical (sexual) differences between "male" and "female" and the gender differences between "boy" and "girl". In the phallic stage, a boy's decisive psychosexual experience is the Oedipus complex, his son–father competition for possession of mother. Oedipus, who unwittingly killed his father, Laius, and sexually possessed his mother., in the phallic stage, a girl's decisive psychosexual experience is the Electra complex, her daughter–mother competition for psychosexual possession of father. Electra, who plotted matricidal revenge against her mother.
Unresolved psychosexual competition for the opposite-sex parent might produce a phallic-stage fixation leading a girl to become a woman who continually strives to dominate men either as an unusually seductive woman (high self-esteem) or as an unusually submissive woman (low self-esteem). In a boy, a phallic-stage fixation might lead him to become an aggressive, over-ambitious, vain man.
Latency stage

The fourth stage of psychosexual development is the latency stage spans from the age of six years until puberty, unlike during the preceding oral, anal, and phallic stages —the child must derive the pleasure of gratification from secondary process-thinking that directs the libidinal drives towards external activities, such as schooling, friendships, hobbies. Any neuroses established during the fourth, latent stage, of psychosexual development might derive from the inadequate resolution either of the Oedipus conflict or of the Ego's failure to direct his or her energies towards socially acceptable activities.
Genital stage

The fifth stage of psychosexual development is the **genital stage**, spans from **puberty** and adult life, and thus occupies most of the life of a man and of a woman; its purpose is the psychologic detachment and independence from the parents. The genital stage affords the person the ability to confront and resolve his or her remaining psychosexual childhood conflicts. The genital stage is centered upon the genitalia, but the sexuality is consensual and adult.
Oral Stage

• Centered on oral sensations and gratification (mainly feeding)

• Objective: trusting dependence on others, express needs without conflict

• Successful resolution: trust in others, self-reliance

• Unsuccessful: overly dependent, needy, demanding regarding others
Cognitive Development

• Pioneered by Jean Piaget (1896-1980)
• Studied his own children in formulating his theories
Piaget’s Theory of Cognitive Development

- Provides a framework for understanding the cognitive capabilities of children, informing effective communication and treatment

- Four stage theory
  - Sensorimotor (0-2)
  - Preoperational (2-6)
  - Concrete Operational (6-11)
  - Formal Operational (11-adult)
Sensorimotor Phase

• Birth to 24 months
• Sensory input and motor activity organized first
• Non-symbolic cognition: the world is what is perceived, with little or no internal representation of it
• Object permanence obtained late: objects exist even when out of sight (peek a boo)
## Sensorimotor milestones

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Milestone Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>~0 to 2 mos</td>
<td>suck, look, grasp (reflexes)</td>
</tr>
<tr>
<td>~2 to 5 mos</td>
<td>primary circular rxns (internal)</td>
</tr>
<tr>
<td></td>
<td>- intentional thumb sucking</td>
</tr>
<tr>
<td>~5 to 9 mos</td>
<td>secondary circular rxns (external)</td>
</tr>
<tr>
<td></td>
<td>- shaking rattle</td>
</tr>
<tr>
<td>~9 to 12 mos</td>
<td>peek-a-boo</td>
</tr>
<tr>
<td>~12 to 18 mos</td>
<td>tertiary circular rxns (variance)</td>
</tr>
<tr>
<td></td>
<td>- varying rattle shakes</td>
</tr>
<tr>
<td>~18 to 24 mos</td>
<td>attains object permanence</td>
</tr>
</tbody>
</table>
Object Permanence

- "Object" refers to things (toys, faces)
- critical task that when mastered signifies the end of the sensorimotor stage
- understanding that objects exist independently of current perceptual information
- indicates the development of symbolic thought
Erikson: Psychosocial Theory

- **Trust v Mistrust** (0 to ~1 year)
- Autonomy v Shame/Doubt (~1 to 3 years)
- Initiative v Guilt (~3 to 5 years)
- Industry v Inferiority (~6 to 11 years)
- Identity v Role Diffusion (~11 to 21 years)
- Intimacy v Isolation (~21 to 40 years)
- Generativity v Stagnation (~40 to 65 years)
- Integrity v Despair (~65 years and up)
Trust v Mistrust

- Erikson felt that the essential psychosocial task of infancy was the establishment of trust (like Freud, but ↓ oral emphasis)
- Success: differentiation from the caregiver, object permanence, and a secure attachment with the caregiver, generating a sense of trust or early confidence
- Failure → depressive or schizoid personality
Mahler
(Separation/Individuation)

- Autistic (first month)
- Symbiosis (2-5 months)
- Differentiation (5-10 months)
- Practicing (10-16 months)
- Rapprochement (16-24 months)
- Object constancy (“object” as a psychological other, 24-36 months)
  - note different from object permanence of Piaget
Mahler: Autistic

• Autistic phase
  – 1st month of life
  – behavior is instinctive and serves only to satisfy biological needs
  – infant is unaware of “outside”
  – infant and mother are “one”
Mahler: Symbiotic

- **Symbiotic Phase**
  - 2nd through 5th month
  - infant develops dim awareness that needs are met outside of self
  - **social smile** develops
  - John Bowlby observed this in greater detail in his study of attachment
    - social smile for all comers
Mahler: Differentiation

- Differentiation
  - 5th through 10th month
  - compares what is, and what is not mother
  - infant separates from caregiver by pushing away
  - infant develops *stranger anxiety*
    - more common in babies with one caretaker
    - fear at the approach of a stranger
Mahler: Practicing

- **Practicing subphase**
  - 10 through ~16 months
  - the infant explores the environment (now able to independently crawl/walk)
  - caregiver serves as “home base”
  - *separation anxiety* occurs during this time (but requires object permanence)
    - anxiety at physical separation from mother, especially if mother no longer visible
Mahler: Rapprochement

- **Rapprochement crisis**
  - 16-24 months
  - child torn between wanting mother’s soothing support (dependence) and not wanting help (omnipotence)
  - “terrible two’s” where sometimes the child has temper tantrums of frustration
ATTACHMENT
Theory Begins:

Harry Harlow
Ethologist
1905-1981
Harry Harlow and the Rhesus Monkeys

• Studied infant monkey behavior: what are the most important features of a mother?
  – Two “mothering” options for infants:
    • terry cloth covered wire surrogate without food
    • wire only surrogate with food
  – Infants instinctively prefer the “comfort contact” of terry cloth over food

• Monkeys raised without mothers and peers are socially incompetent
John Bowlby

1907-1990

Used ethology to inform human development
What is Attachment?

• An enduring emotional bond uniting one creature with another, manifested through efforts to seek proximity and contact with the ‘attachment figure’, especially when under stress

• Reciprocal relationship gradually built over time

• Not the same as bonding, which is the mother’s feeling for her child
Bowlby’s Attachment Theory

• Attachment behavior (proximity seeking, eye contact, smiling) gives an evolutionary advantage by motivating caregiving

• Attached children may have stayed closer to their mother, and therefore were less susceptible to predators or getting lost

• Attachment behavior continues to maturity
  – tendency to seek family/friends in anxious situations
Attachment Timeline

- 0-7 months: generalized social behavior, somewhat specific to parents
- 8-24 months: Attachment to parents with stranger anxiety and protest at separation – depression if separation prolonged
- 2-12 years: Parents remain primary attachment figures, but network broadens
- 12-adult: Peers, romantic interests, and eventually children may become primary
Psychosocial Implications of Attachment Theory

- Attachment relationships become the template for social relations throughout the life span.
- Therefore, the emotions and expectations arising from the infant-parent relationship are the basis for conceptualization of self and others in later years.
  - anticipating soothing from others leads to ability to self soothe (security)
Dangers of Disrupted Attachment

- Increased separation anxiety, avoidant personality disorder, depressive disorders, delinquency, failure to thrive, learning disorders
René Spitz: Attachment Applied

- Studied infant behavior/health
- Observed 123 infants living in a nursery/shelter with mother as primary caretaker
- Babies lived there for 2 years
- 45 developed depressive type symptoms
  - developed over a 3 month period, beginning age 6-8 months (no earlier)
Spitz’s Depressive Syndrome

- 5 Stage process
  1. Sadness, crying, anxiety
  2. Withdrawn, rejecting of attention
  3. Motor retardation, decreased responsiveness
  4. Loss of appetite and weight (FTT?)
  5. Insomnia, facial rigidity (marasmus)
Why did they get sick?

• Departure of mother from nursery between age 6-8 months in each case
• No children with mothers present developed depression
• Condition resolved with return of mother
• Conclusion: syndrome is result of loss of primary caretaker (mother)
  – “anaclitice depression” (Harlow observed this in monkeys as well)
  – thus a disorder of attachment
Mary Ainsworth: Laboratory Assessment of Attachment

• Colleague of John Bowlby
• 1913-1999
• Studied attachment behavior in Africa, Toronto, England, and Baltimore
  – believed attachment behavior universal
• Developed “Strange Situation” test to assess attachment behavior
The Strange Situation

Mary Ainsworth
Johns Hopkins University

<table>
<thead>
<tr>
<th>Ep</th>
<th>M, B</th>
<th>2 min</th>
<th>Ep 5</th>
<th>M, B</th>
<th>3 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ep 2</td>
<td>M, B</td>
<td>3 min</td>
<td>Ep 6</td>
<td>B</td>
<td>3 min</td>
</tr>
<tr>
<td>Ep 3</td>
<td>M, B, S</td>
<td>3 min</td>
<td>Ep 7</td>
<td>B, S</td>
<td>3 min</td>
</tr>
<tr>
<td>Ep 4, B, S</td>
<td>3 min</td>
<td>Ep 8</td>
<td>M, B</td>
<td>3 min</td>
<td></td>
</tr>
</tbody>
</table>
Mary Ainsworth’s “Strange Situation”

• 21 minute test with 8 steps:
  1. Introduction
  2. M + C
  3. M + C + S
  4. C + S
  5. C + M
  6. C
  7. C + S
  8. C + M

• Primary outcome measure is child’s reaction on reunion with Mother (Steps 5 + 8)
Attachment Classification

- Secure: Proximity seeking, pleasurable reunion; “I’m glad to see you”

- Insecure type
  - Avoidant/Anxious: Turn away, ignore, or offer mixed signals; “I don’t need you”
  - Resistant/Ambivalent: Anger, hostile, passive; “I hate you”
  - Disorganized: Incoherent, confused, or inconsistent behavior “I don’t know you”
Secure Attachment

• Known as Type B
• 60-70% of low risk sample
• Characteristics
  – share positive affect with caregivers
  – seek proximity on reunion
  – return to independent play easily
  – theorized to expect comforting from parents when they show distress
Insecure Avoidant Attachment

- Avoidant/anxious, or Type A
- 15-25% of low risk sample
- Characteristics
  - share little positive affect with caregivers
  - tend to ignore on reunion, make only brief contact
  - theorized to anticipate rejection from caregiver, thus they inhibit displays to avoid negative outcomes, instead distract themselves
Insecure Resistant Attachment

- Ambivalent/resistant, or Type C
- 10-15% of low risk sample

Characteristics
- preoccupied with caregiver’s presence, play little
- extended distress on reunion, showing anger and proximity seeking along with resistance
- theorized to anticipate inadequacy from caregiver, thus they are chronically activated, expressing at a low threshold at high intensity
Insecure Disorganized Attachment

- Disorganized, or Type D
  - added to classification scheme late
- 10-30% of low risk, up to 80% high risk
- Characteristics
  - demonstrate contradictory behavior: in fearful situation (caregiver gone) -
    - typical: ↓ exploration, ↑ attachment behavior (distress at separation, proximity seeking)
    - abnormal: ↑ exploration with parent absent, with little distress
Type D, continued

- Other characteristics
  - stereotypies, mistimed movements, freezing, stilling, or slowed movements
  - theorized to fear the caregiver, and lack an overall strategy of behavior
Freud Recognized Attachment:

“Psychoanalysis has taught us that the individual’s emotional attitudes to other people, which are of such extreme importance to his later behavior, are already established at an unexpectedly young age. The nature and quality of the human child’s relations to people of his own and the opposite sex have already been laid down in the first six years of life. He may afterwards develop and transform them in certain directions but he can no longer get rid of them… All of his later choices of friendship and love follow upon the basis of the memory-traces left behind by these first prototypes”.

Some Reflections on Schoolboy Psychology, 1914
Temperament

- Innate behavior style
  - primarily genetically mediated
- New York Longitudinal Study (Chess and Thomas) of upper/middle class families
Describing temperament

- 9 Dimensions measured include
  - baseline activity
  - rhythmicity
  - approach or withdrawal
  - adaptability
  - threshold of responsiveness
  - reaction intensity
  - baseline mood
  - distractibility
  - attention span or persistence
Temperamental Clusters

- Easy: 40% of sample, predominantly happy and easy to care for
- Slow to warm up: 15%, have a “shy” personality
- Difficult: 10%, tough on caretakers
- Undifferentiated: 25%
Temperamental Clusters

- Mood
- Rhythmicity
- Intensity
- Adaptability
- Approach

- Easy
- Difficult
- Slow to warm up
Conclusions from Temperament

• The temperament of the child affects the behavior of the caretaker
  – difficult temperament may generate frustration, anger, guilt, and more negative parenting styles
  – easy temperament may be rewarding, generating positive feelings in parent, positive parenting
  – exemplifies genes affecting the environment

• “Goodness of fit”: the match between the child’s temperament and the parent’s personality and parenting skills
Transactional Model of Development

• “Nature v Nurture” too restrictive
• Focuses on interaction between genes and environment
  – light exposure required for sight to develop
  – relevance in conduct disorder
• Keep interaction in mind as other theories considered
"I've decided that I'd like to be the only child of sensitive, kindly patients with an indulgent grandmother and several rich and influential uncles."
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