# Infancy & Childhood Module 10

# Physical development - brain

- At birth you have most of the brain cells you will ever have
- ❖ But connections between those cells are immature

# Physical development - brain

- **❖** From 3-6
  - Development especially in frontal lobes (logic, planning, self-control)
    - \* This continues into adolescence
      - Last areas to develop are areas assoc. with thinking, memory, and language

# Physical development - brain

- ❖ Experiment on rats 1962
- Those in an "enriched" environment 60 days showed actual physical brain weight increase 7-10%

### Physical development - brain

- · Post-adolesence
  - . Use it or lose it
  - Unused connections are "pruned" away

### Physical development - brain

- \* This is not to say that brain development is all over
- New neurons are born at any time via experience

### Physical development - brain

- Infantile amnesia we tend to not remember much before age 3 (it's in there, we just can't recall it)
  - Brain isn't yet fully capable
  - We don't have the language to put to our experiences that would make them "memorize-able"

# Physical development – motor skills

- \* As brain develops, so does potential for motor skills
- \* Babies tend to develop skills in a predictable order
  - Based on the growing development of their brain, not experience or imitation
    - So don't think "walking" your 1 week old baby around will cause him to walk by 1 month!
    - ❖ Motor development based partially on genetics

#### Cognitive Development

- ❖ Jean Piaget developmental psychologist 1896-1980
- \* "Stages of Development"
- . Brain is always trying to make sense of the world
- We develop "schemas" (mental molds) into which we can "pour" our experiences
- See handout
- ❖ See Table 10.1 pg 136

#### Cognitive Development

- ❖ Jean Piaget developmental psychologist 1896-1980
- "Object Permanence" Piaget believed it develops after about 8 months (still in sensorimotor stage)
  - The understanding that things still exist even though we can't see/hear them
    - Today's researchers feel it's more a development over time, not just a "all of the sudden" discovery

#### Cognitive Development

- Jean Piaget developmental psychologist 1896-1980
- "Conservation" idea something that appears "bigger" is not necessarily "more"
  - Preoperational children may not comprehend "conservation"
    - How many pieces do you want your pizza cut into? 6 or 8?
    - ❖ Oh, 8! I'm super hungry!!!

#### Cognitive Development

- Jean Piaget developmental psychologist 1896-1980
- Modern view of Piaget
  - His stages are still widely supported
  - He viewed each stage as independently scaffolding onto the previous one
  - Modern psychologists view it more as a constantly growing and unfolding process

#### Cognitive Development

- ❖ Lev Vygotsky 1896-1934
- Importance of language and social connections in learning
- Language provides the "building blocks" for thinking

#### Social Development

- Attachment survival impulse; strong bond between caregivers and child
  - . Was once believed to be tied to the food-provider
  - \* Now realized to be tied to the comfort-provider
    - · Harlows' blankie-mommy experiments
      - "Imprinting period" some animals (not humans)

#### Social Development

- Secure attachment comfortable to leave mom's side to play and explore as long as she is present; uncomfortable when she leaves, happy when she returns
  - \* Associated with attentive mothers
- Insecure attachment uncomfortable leaving mom's side to play; cling to mom; either become very upset when she leaves or become indifferent
  - $\begin{tabular}{ll} $\bigstar$ & Associated with inattentive, unresponsive mothers \\ \end{tabular}$ 
    - Thought question: So what about all these moms on their phones while Junior is on the playground?

#### Social Development

- \* Deprivation of attachment associated with
  - Lower intelligence scores
  - Increased anxiety
  - Trouble making secure attachments to others
    - But, children are resilient (bounce back from adversity), especially if they have a clear break/removal from the negative situation

#### Social Development

- \* Attachment and Daycare
  - Children in daycare show no ill effects or attachment issues as long as the care is loving and high-quality
  - One study running since 2002 shows that children in daycare had slightly advanced thinking & language skills

#### Social Development

- Temperament your characteristic reactivity and intensity
- ❖ apparent from birth often consistent into later years
- This is evidence that personality is at least partially biologically determined

#### Parenting Styles

- · Vary culturally and individually
  - 3 basic types
    - Authoritarian
    - \* Permissive
    - Authoritative