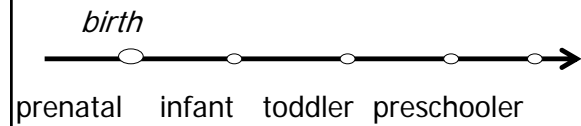


# Human Development

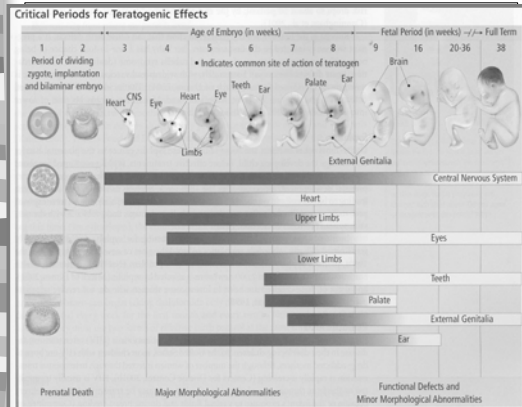
# Development



# Teratogens

factors that cause damage during the prenatal period

- dose
- heredity
- several negative factors
- age of the prenatal organism (sensitive period)



# Fetal Alcohol Syndrome

- ❖ mental retardation
- ❖ impaired: motor coordination, attention, memory, language
- ❖ hyperactivity
- ❖ slow physical growth
- ❖ facial abnormalities

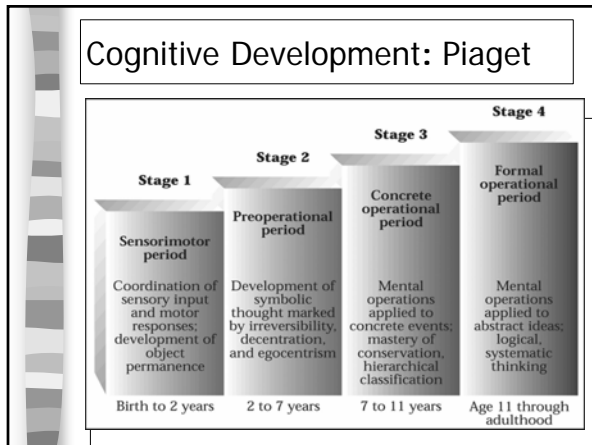
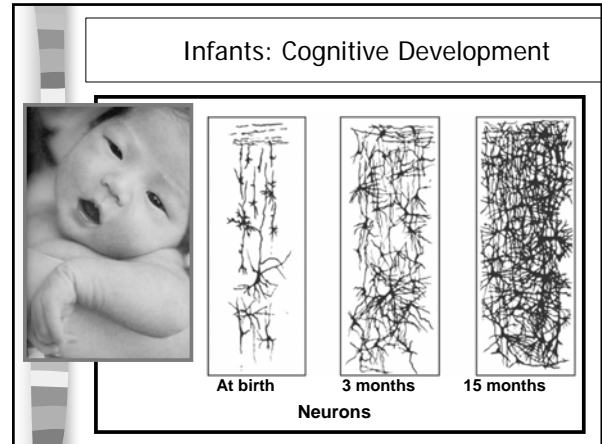
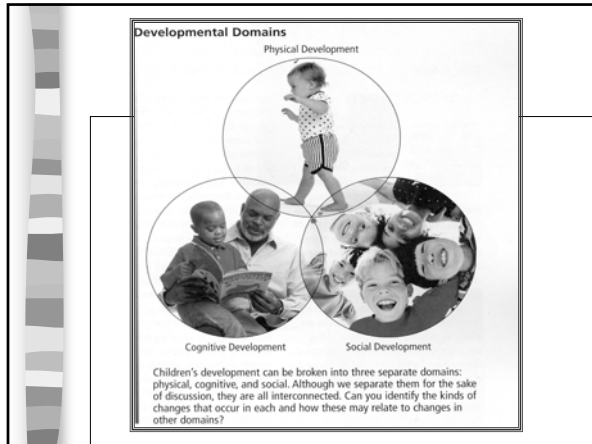


The mother of this severely retarded boy drank heavily during pregnancy. His widely spaced eyes, thin upper lip, and short eyelid openings are typical of fetal alcohol syndrome. (Photo courtesy: George Steinmetz)

# Radiation

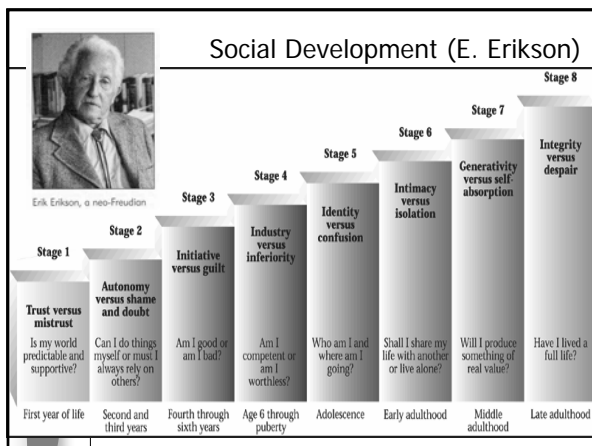
This child's mother was just a few weeks pregnant during the Chernobyl nuclear power plant disaster. Radiation exposure is probably responsible for his limb deformities. He is also at risk for low intelligence and language and emotional disorders. (Photo courtesy: Charlton-Bourdillon/Liaison Agency)



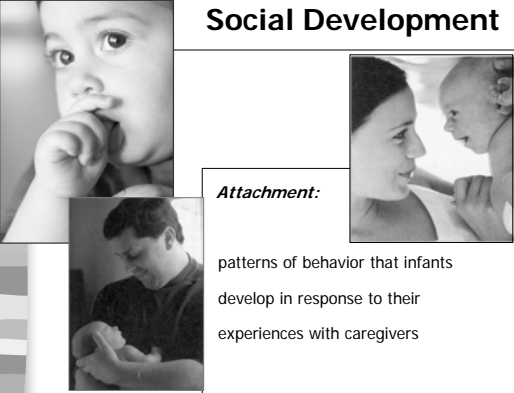


### Cognitive Development

- \* **Schemas:** mental models
- \* **Assimilation:** interpret new experiences using old schemas
- \* **Accommodation:** fitting old schemas to new experiences





## Social Development



**Attachment:**

patterns of behavior that infants develop in response to their experiences with caregivers

## Ainsworth: "strange situation"



3.7 Mary Ainsworth Ainsworth developed the Strange Situation Test, a 20-minute evaluation to observe the attachment between children and their caregivers.

## Ainsworth: "strange situation"

### Types of Attachment

#### 1. Secure

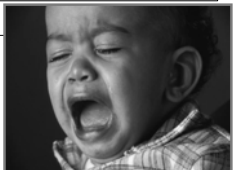
- infant:
- caregiver: sensitive, responsive, predictable
- later in life:

### Types of Attachment

#### 2. Anxious-Resistant

- infant:
- caregiver: insensitive to baby's cues, some rejection, lower on affect, not consistent
- later in life:



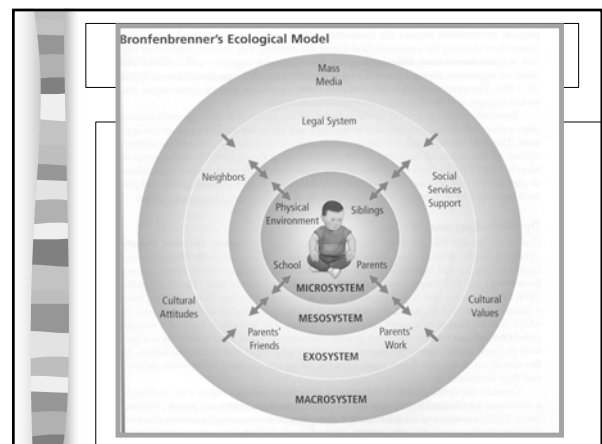
### Types of Attachment

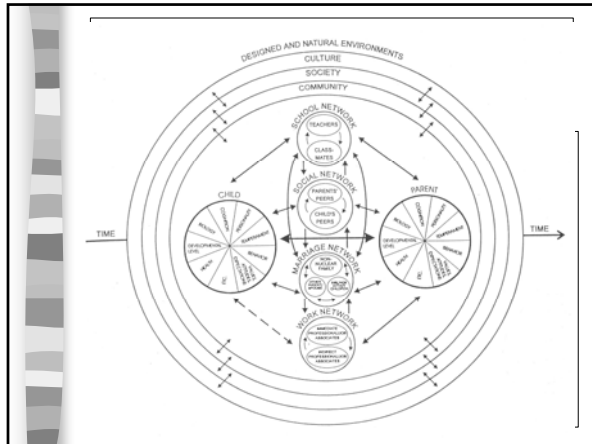
#### 3. Anxious-Avoidant

- infant:
- caregiver: more insensitive, less responsive, often angry, very low on affect
- later in life:



#### 4. Disorganized





### Toddlers: Development

- ◆ language
- ◆ symbolic play
- ◆ self-awareness
- ◆ gender identity
- ◆ self-evaluation
- ◆ self-control
- ◆ emergence of moral self

### Cognitive Development

Preoperational stage (Piaget)  
lack understanding of "conservation"

### conservation

### Preoperational stage

*Egocentrism*: inability to perceive things/events from another's point of view



### Cognitive Development: Piaget

Stage 1	Stage 2	Stage 3	Stage 4
Sensorimotor period	Preoperational period	Concrete operational period	Formal operational period
Coordination of sensory input and motor responses; development of object permanence	Development of symbolic thought marked by irreversibility, decentration, and egocentrism	Mental operations applied to concrete events; mastery of conservation, hierarchical classification	Mental operations applied to abstract ideas; logical, systematic thinking
Birth to 2 years	2 to 7 years	7 to 11 years	Age 11 through adulthood

## Cognitive development

*Piaget: concrete operational stage*

- ✧ think logically about concrete events (conservation)
- ✧ less egocentric
- ✧ can verbally hide feelings

## Adolescents

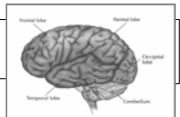
- 11-14 early
- 15-18 middle
- 18-21 late



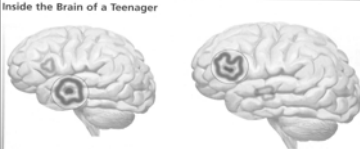


## Mood Swings

- ✧ Hormonal changes
- ✧ Developing brain (frontal cortex)



**Inside the Brain of a Teenager**



When interpreting emotions, teens (left image) rely more on the amygdala, whereas adults (right image) rely more on the frontal cortex. Teens seem not only to misread the feelings of others, but they react strongly from an area deep inside the brain that causes more of a "gut" emotional reaction than the adult brain does. This likely reflects the fact that a teen's frontal region is not fully connected with the emotional region. Such differences show that teens' brains are not yet fully developed, and some of their behaviors may result from this.


## Mood Swings

- ✧ Sleep deprivation
- ✧ Social support: still seek parental guidance



## Adolescent egocentrism



- ✧ Imaginary audience
- ✧ Personal fable



## Identity Achievement (Erikson)

unique/independent identity:

- social
- ethnic
- sexual
- occupational

**Moratorium:**

dedication to self-discovery



**Identity Diffusion:**

tried several identities - not able to settle on one



**Identity Foreclosure:**

didn't go through identity crisis



**Negative Identity:**

select identity that is  
undesirable in the eyes  
of others

