Infancy and Childhood
Michael Phelps – In the beginning
Infancy and Childhood: Physical Development

- Maturation
  - biological growth processes that enable orderly changes in behavior
  - relatively uninfluenced by experience
Infancy and Childhood: Physical Development

- The brain is immature at birth
- As the child matures, the neural networks grow increasingly more complicated

Cortical Neurons

At birth 3 months 15 months
Infancy and Childhood: Physical Development

- Babies only 3 months old can learn that kicking moves a mobile - and can retain that learning for a month.
Infancy and Childhood: Cognitive Development

- **Schema**
  - a concept or framework that organizes and interprets information

- **Assimilation**
  - interpreting one’s new experience in terms of one’s existing schemas
Infancy and Childhood: Cognitive Development

- **Accommodation**
  - adapting one’s current understandings (schemas) to incorporate new information
  - (creating new schemas)

- **Cognition**
  - All the mental activities associated with thinking, knowing, remembering, and communicating
## Piaget’s Stages of Cognitive Development

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<th>Description of Stage</th>
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| Birth to nearly 2 years | **Sensorimotor** Experiencing the world through senses and actions (looking, touching, mouthing) | • Object permanence  
• Stranger anxiety                                                   |
| About 2 to 6 years      | **Preoperational** Representing things with words and images but lacking logical reasoning | • Pretend play  
• Egocentrism  
• Language development                                                   |
| About 7 to 11 years     | **Concrete operational** Thinking logically about concrete events; grasping concrete analogies and performing arithmetical operations | • Conservation  
• Mathematical transformations                                               |
| About 12 through adulthood | **Formal operational** Abstract reasoning | • Abstract logic  
• Potential for moral reasoning                                                   |
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| About 12 through adulthood | **Formal operational**                  |                                                                                       | • Abstract logic  
  Abstract reasoning                                                                 | • Potential for moral reasoning |
Infancy and Childhood: Cognitive Development

- **Egocentrism**
  - the inability of the preoperational child to take another’s point of view

- **Theory of Mind**
  - people’s ideas about their own and others’ mental states—about their feelings, perceptions, and thoughts and the behavior these might predict

- **Autism**
  - a disorder that appears in childhood
  - marked by deficient communication, social interaction and understanding of others’ states of mind
Social Development

- **Stranger Anxiety**
  - fear of strangers that infants commonly display
  - beginning by about 8 months of age
  - CD1, #16

- **Attachment**
  - an emotional tie with another person
  - shown in young children by their seeking closeness to the caregiver and showing distress on separation
Social Development

- Groups of infants left by their mothers in a unfamiliar room (from Kagan, 1976).

![Graph showing the percentage of infants who cried when their mothers left, with lines for Day care and Home.]
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Animism (confusion between physical and psychological events)

Confusion of external, physical objects with internal thoughts; thinking that objects think and feel.

Example: A child is afraid of the “monsters” in a dark closet and that clouds move “because they’re having fun.”
Infancy and Childhood: Cognitive Development

- Conservation
  - the principle that properties such as mass, volume, and number remain the same despite changes in the forms of objects

- CD1, #18
Infancy and Childhood: Cognitive Development

- Conservation

While working at a pizza parlor I observed a man ordering a small pizza to go. He appeared to be alone and the cook asked him if he would like it cut into 4 pieces or 6. He thought about it for some time before responding, "Just cut it into 4 pieces; I don't think I'm hungry enough to eat 6 pieces."
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Piaget’s Stages of Cognitive Development

- Formal Operations
  - Logical thinking
  - Abstract thinking
  - Problem solving
Social Development - Attachment

- Harlow’s Surrogate Mother Experiments
  - monkeys preferred contact with the comfortable cloth mother, even while feeding from the nourishing wire mother
Harlow's Studies on Dependency in Monkeys: Introduction

- Developmental psychologists once thought that infants develop intense attachments to caregivers primarily because caregivers satisfy the infant's need for food.

- Harry Harlow, in experiments to study learning in monkeys, found otherwise. His studies demonstrated the importance of "contact comfort" in infants.
Harlow's Studies on Dependency in Monkeys

Harry Harlow describes the actions of a baby monkey as it feeds from the wire dummy but spends most of its time on the comfortable cloth covered dummy even though it doesn’t offer food.

*video CD1, 12a here.*
Harlow presents a frightening stimulus to a baby monkey who quickly seeks comfort from the cloth dummy again showing its preference for the cloth dummy over the wire, food-providing dummy.

Show video 12b on CD 1
Social Development

- Monkeys raised by artificial mothers were terror-stricken when placed in strange situations without their surrogate mothers.
Harlow puts a baby monkey alone in a room that it has never seen. The baby seeks comfort and remains frozen with fear unable to find a source of protection. Then a baby monkey is put in the room with a wire, food-providing dummy, but again the baby remains frozen with fear. Finally a baby monkey is put in the room with a cloth dummy. The baby quickly seeks comfort from the dummy and then with a newfound sense of security it begins to explore the room.

Show video 12c on CD 1
Social Development

- Critical Period
  - an optimal period shortly after birth when an organism’s exposure to certain stimuli or experiences produces proper development
Social Development

- Imprinting
  - the process by which certain animals form attachments during a critical period very early in life

![Imprinting: Learn about the man who walked with geese](image_url)
Social Development - Child-Rearing Practices

- Authoritarian
  - parents impose rules and expect obedience
  - “Don’t interrupt”. “Why? Because I said so.”

- Permissive
  - submit to children’s desires, make few demands, use little punishment

- Authoritative
  - both demanding and responsive
  - set rules, but explain reasons and encourage open discussion