Today's class

- Infant cognitive development
- Infant language development
- Infant and Toddler Observation Project

- Progress of your observations
- How to document
- How to analyze
- Practice analyzing

The human brain predisposes infants to learn from experience.

- Babies are prewired to learn.
- Still, the brain's #1 job is not learning. It is ... ?
- "Survival is the brain's most important priority. Safety is the most important expression of that priority." (Medina, BRFB, p. 66)

What helps infants feel safe?

Infant cognitive development

- What is learning?

Learning refers to changes, more or less permanent, in an individual's behavior as a result of experience.

Mental structures (schema) predispose infants to learn from experience.

- What is "cognition"?

Cognition refers to:
- Perception
- Thinking, including language
- Memory
- Learning and intelligence
- Adaptation
- Improvisation
- Problem-solving

What is "cognition"?

How do babies learn in the first year of life?

According to Piaget, the first stage of cognitive development is the sensorimotor stage.

- What does this mean?
- What are the infant's primary strategies for learning during this stage?

Brain development depends upon:
- Biologically driven maturational processes
- Interactions with the environment
- Example: Distance and depth perception develops gradually as an infant moves freely in the environment.

Affordances

Affordances are opportunities that the environment offers for perception and interaction.

Jean Piaget (born 1896) was a pioneer in studying cognitive development in humans. More recent research has both validated and extended Piaget's ideas about infant's cognitive abilities.

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The way a child accesses what the environment offers depends upon:
- Past experiences
- Current developmental level
- Sensory awareness of opportunities
- Immediate needs and motivation

Affordances refers to the opportunities that the environment offers the child for perception and interaction.

Movement and People
- Infants have dynamic perception, focused on movement and change.
- They have a people preference from the first days of life!
  - Examples: Infants are predisposed to listen to voices; to stare at faces; and to be soothed by touch.

Movement and perception
- Motor skills and perceptual development are an interactive, dynamic system.
- Perception is a cognitive process that organizes and interprets information received through the senses.

Sensorimotor intelligence progresses in stages
There is a reciprocal, two-way interaction, between perception and action; between sensory information and motor skills.
In pairs, look up and explain:
- Stage One: the stage of reflexes
- Stage Two: first acquired adaptations
- Primary circular reactions

Refer to page 166

Sensorimotor Intelligence: stages 3 and 4
3. Making interesting sights last
  - Example: infant smiles when someone shakes a rattle (secondary circular reaction).

4. New adaptations and anticipation
  - The infant shows goal-directed behavior
  - Object permanence begins

Which stage is this?
Stage Five of Sensorimotor Intelligence

Stage Five:
New means through active experimentation

- Piaget called infants in this stage “little scientists” because of their need for experimentation.
- Example: An infant drops her spoon to see what will happen.

Stage Six of Sensorimotor Intelligence

Stage Six: new means through mental combinations

- Infants can now think before taking action, for example, wondering “should I really pull that cat’s tail.”
- Deferred imitation: infants can now copy the behavior of others after some time has passed, even days later.

What do they learn from playing with objects?

Playing with objects develops thinking, intelligence and language

What are key components of intelligence?

In addition to memory and adaptation to new situations, intelligence includes:
- Desire to explore
- Self-regulation
- Creativity
- Communication
- Deciphering non-verbal communications

Ref. Brain Rules for Baby by John Medina

Using and playing with objects develops in stages

- Simple exploration
- Mouthing
- Using objects for object’s intended purpose
- Active exploration and experimentation, inventing new ways of using
- Imaginative play and symbolic representation
Video: See How They Move

Take notes of ideas for supporting infants development

5-minute write
- One key piece of new knowledge.
- How will it affect you personally or professionally? i.e What changes in attitudes or future actions?

How to observe?
- Objectivity
- Non-judgment
- Close attention
- Recognizing and focusing on significant behaviors
- Developmental framework
- Valid evaluation methods (e.g. DRDP)

Our attitude and methods when we observe

Progress of your observations