- How do we know what babies know?
  - Habituation is the process of getting used to (i.e., bored with) a stimulus after repeated exposure
  - An infant shows it by looking away
  - If a new object appears and the infant reacts (change in heart rate, sucking), it is assumed he recognizes the object as something different.
- What is "cognition"?
  - Cognition refers to thinking including language, learning, memory, and intelligence
  - 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.
- Piaget's Cognitive-Development Theory
  - Piaget's first stage, sensorimotor, spans the first 2 years of life.
    - characterized by learning through senses and motor actions
- Process of Development
  - We build mental structures that help us adapt to the world
  - Adaptation involves adjusting to new environmental demands.
  - Children actively construct their cognitive worlds. (Opposite view of a behaviorist)
    - How do children think about the world
    - How change in thinking occur
- Processes children use to adapt to the world:
  - Schemes
    - As children seek to construct an understanding of their world, the developing brain creates schemas
    - Organized ways of making sense of experience called schemes change with age:
      - Action-based behavioral schemes(motor patterns, physical activities) at first
      - Later move to a mental (thinking, cognitive activities) level
    - Building Schemes: Knowledge is altered by experience
  - Adaptation
    - Building & rebuilding schemes
      - their internal representation of the world; their organization of concepts and actions that can be revised by new information about the world
    - How do kids use and adapt schemas?
      - Assimilation: using current schemes to interpret the external world
      - Accommodation: adjusting to schemes and creating new ones to better fit the environment
  - Organization
    - To make sense of their worlds, Piaget said kids cognitively organize their experiences
    - Internal rearranging and linking of schemes
    - Kids are continually refining the organization
  - What produces cognitive change?
    - Using Assimilation and Accommodation

        - Disequilibrium -- experiencing cognitive conflict/ inconsistencies, things that don't fit into schemes
            - Use assimilation during equilibrium
            - Disequilibrium prompts accommodation
            - Old schemes are adjusted, new schemes are developed

- Stage Theory
    - Cognitive development occurs in a fixed sequence of dev steps
    - Sensory Motor Period (0-2)
    - Thinking stems from coordination of the sensory information and motor activity
    - Infants learn through actions on environment
        - looking, listening, touching, sucking, mouthing, grasping
    - Sensorimotor Stage
        - Birth to 2 years, divided into 6 substages
        - Building schemes through sensory and motor exploration
        - Circular reactions: a repetitive action
- Piaget's Stages of Sensorimotor Intelligence
    - Stage 1: Reflexive Schemes (0-1 month)
        - Simple reflexes
        - Sensation and action are coordinated primarily through reflexive behaviors →baby producing behaviors that resemble reflexes in the absence of the usual stimulus for the reflex
            - Ex- rooting
    - Stage 2: (1-4 months)
        - First habits & primary circular reactions
        - Center of attention: Infants body
            - Ex-hands are the infants first toys
        - Habit: scheme based on a reflex that's completely separated from eliciting stimulus
            - Ex- thumb sucking
        - Primary circular reaction
        - A scheme based on the attempt to reproduce an event that initially occurred by chance
    - Stage 3: Secondary circular reaction (4-7months)
        - Actions aimed at repeating interesting effects in the surrounding world
        - Beyond self-preoccupation→ object oriented
            - By chance--- outcome
            - Infant repeats action to get outcome again
        - Also, imitates some simple actions
            - Ex- baby talk, physical gestures
        - Not intentional or goal directed
    - Stage 4: Coordination of secondary circular reactions (7-10 months)
        - Must coordinate
            - vision and touch
            - Hand and eye
        - Coordination of schemes
        - More outward directed
        - Intentionally goal directed behavior (ex- 2 hand manipulation)