ii. Preoperational stage—second major stage of cognitive development, from about 24 months to age 6, marked by the ability to use symbols

iii. Concrete operations stage—the stage of development between ages 6 and 12, during which children become able to think logically

iv. Formal operations stage—fourth and final major stage of cognitive development, occurring during adolescence, when the child becomes able to manipulate and organize ideas or hypothetical situations as well as objects

d. Causes of Cognitive Development
   i. There is a genetic plan for development, but it depends on environmental factors for its full expression
   ii. Two environmental factors that explain progression through the stages
      1. Social transmission—information the child gets from other people
      2. Experience—the child’s own opportunities to act on the world and to observe the results of those actions
   iii. Piaget hypothesized that the process of equilibration is an inborn, automatic response to conflicts between a child’s current schemes and the challenges of her environment
   iv. Basic pattern of brain maturation common to all humans contributes to cognitive development
      1. The pace at which children proceed through the four stages may be partly explained by different rates of brain maturation

2. Infancy
   a. Piaget’s View of the Sensorimotor Period
      i. Babies begin to understand that objects continue to exist even when they are out of sight
      ii. Six substages that represent a specific advance
         1. Birth to 1 month—Reflexes—use of built-in schemes or reflexes such as sucking or looking; no imitation; no ability to integrate information from several senses
         2. 1-4 months—Primary Circular Reactions—accommodation of basic schemes (grasping, looking, sucking), as baby practices them endlessly. Beginning coordination of schemes from different senses, such as looking toward a sound; baby does not yet link bodily actions to some result outside the body.
         3. 4-8 months—Secondary Circular Reactions—baby becomes much more aware of events outside his own body and makes them happen again, in a kind of trial-and-error learning. Imitation may occur, but only of schemes already in the baby’s repertoire. Beginning understanding of the “object concept.”
         4. 8-12 months—Coordination of Secondary Schemes—clear intentional means-end behavior. The baby not only goes after what she wants, but may combine two schemes to do so, such as knocking a pillow away to reach a toy. Imitation of novel behavior occurs, as does transfer of information from one sense to the other
         5. 12-18 months—Tertiary Circular Reactions—experimentation begins, in which the infant tries out new ways of playing with or manipulating objects. Very active, very purposeful trial-and-error exploration
         6. 18-24 months—Beginning of Representational Thought—development of use of symbols to represent objects or events. Child understands that the symbol is separate from the object. Deferred imitation first occurs at this stage
   b. Challenges to Piaget’s View of Infancy
      i. Memory