Cognitive Development

As viewed by Jean Piaget

How Development Occurs

According to Piaget, "all children are born with an innate tendency to interact with and make sense of their environments. Young children demonstrate patterns of behavior or thinking, called schemes, that older children and adults also use in dealing with objects in the world" (Slavin, 2018, p. 25). Schemes are used to discover and act in the world. Each scheme treats all objects and events in the same manner.

Scheme

a mental representation, plan or structure (Richards & Schmidt, 2010) a pattern of behavior to learn about the world (Slavin, 2018)

Assimilation & Accommodation

Assimilation

the process of understanding a new object or event in terms of an existing scheme (Slavin, 2018)

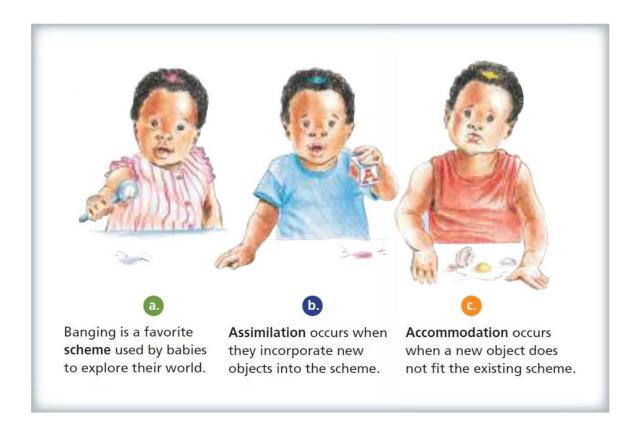
interpreting new information in terms of the child's current knowledge (Richards & Schmidt, 2010)

Accommodation

modifying an existing scheme in light of new information or a new experience (Slavin, 2018)

changing the child's cognitive structure to understand new information. (Richards & Schmidt, 2010)

Adaptation or Equilibration



Examples of Assimilation and Accommodation (from Slavin, 2018, pp. 25-26)

When babies encounter a new object, they will use the schemes they have developed and will find out whether the object makes a loud or a soft sound when banged, what it tastes like, whether it gives milk, and whether it goes thud when dropped. In other words, they will use existing schemes to deal with something unfamiliar like grasping it, biting it, or banging it and this is assimilation. If the object fits within one of their schemes, it stops here. If it does not, they will adopt new schemes and this is accommodation. For example, if you give an egg to a baby who has a banging scheme for small objects, what will happen to the egg is obvious. Less obvious, however, is what will happen to the baby's banging scheme. Because of the unexpected consequences of banging the egg, the baby may

- change the scheme. In the future the baby might bang some objects hard and others softly
- A high school student may have a studying scheme that involves putting information on cards and memorizing the cards' contents. She may have had success with this in one subject and then applied the same scheme to many subjects (assimilation). Another student who studies only by means of memorization might learn to use a different strategy, such as discussing difficult concepts with a friend, to study subjects or topics in which memorization does not work very well (accommodation).