

Cognitive Development: Assimilation and Accommodation

by Sophia Tutorial



WHAT'S COVERED

This tutorial will discuss cognitive development as well as the cognitive theory of learning by focusing on:

1. Jean Piaget
2. Schema
3. Assimilation/Accommodation

1. Jean Piaget

Jean Piaget was a Swiss psychologist in the 1920s who developed the theory of cognitive development and the stages of cognitive development through his studies of children and his interviews with parents at that time.

Through him and other cognitive psychologists, we developed the cognitive theory of learning, which says that people take in information and construct knowledge within minds. This is a little bit different from behaviorism, where the person is a passive participant in learning, meaning that they take in information, and they put out behavior.

Piaget's theory of cognitive development states that individuals are active participants in learning. Internal cognitive constructs are made. It's also similar to Gestalt theory which focuses on the overall organization of the information in our minds.

This also means that there are individual differences in learning and mental processes. What I think of as a chair might be a little bit different from what you think of as a chair, even though there might be similar sorts of characteristics in both of our conceptions of a chair.



TERM TO KNOW

Piaget's Theory of Cognitive Development

Jean Piaget's theory of cognitive development explains how children's mental processes and understanding of the world changes in four stages: sensorimotor, preoperational, concrete operational, and formal

2. Schema

There are several key terms that are important in regards to the cognitive theory of learning. The first one is **schema**. A schema is the basic mental structure where we construct knowledge within our mind, where we take in knowledge, and we put them together in some way.

➤ **EXAMPLE** You may, for example, have a schema of a chair. There might be individual differences on specifics, but most people have the same idea of what a chair is, such as it having three or four legs, a seat, and a back rest.

Schema can take different kinds of forms, too. It might not just be our ideas of a specific object.

➤ **EXAMPLE** We might have stereotypes for different groups of people, or scripts for social situations. For example, it's what you think is likely to occur when you're at a restaurant and a waiter asks what you would like to order. You know what your responses will be; there's a general script for that situation.

World views are general philosophies. When someone says, "everyone only looks out for themselves," this is a philosophy about people and the way they interact with each other.



TERM TO KNOW

Schema

The basic mental structures around which we construct our knowledge

3. Assimilation/Accommodation

Knowledge is constructed into schemas in two different ways. First is **assimilation**, which is when we add new information to an existing schema.

➤ **EXAMPLE** Suppose you have a schema for a chair, and you see a desk chair, one of those wheeled chairs you might find in an office. You would assimilate that information into your existing idea of a chair to say, "That is a chair as well, even if it has some slight differences to it."

The other way that we construct schema is through **accommodation**. This includes modifying an existing schema or making a new one altogether; it sort of splits up an existing schema.

➤ **EXAMPLE** Suppose you see a chair and a stool. You might originally have thought of a chair as having only four legs and a back rest. However, when you see a stool, you might say, "Well, that's a chair as well. I'll put it in with the same category, even though it doesn't have a backrest." When creating a new schema, you might see a chair and a couch. Originally, you might try to categorize that couch as a chair. But then you realize, "That's not a chair at all. Therefore, I'll create a whole new category for couches, so I can differentiate between those two things."

It's much easier to construct schemas through assimilation and accommodation earlier in your life. Generally, young infants and young children have few schemas. Therefore, they're constantly finding new information in

the world and modifying them.



DID YOU KNOW

Children's brains are much more flexible, elastic, and adaptable than an adult's brain.

Later on in life, knowledge can be more solidified with set schemas. It's a lot harder to accommodate them, to create new schemas or modify them. This goes along with the proverb, "You can't teach an old dog new tricks." Our brains aren't necessarily as elastic when we get older, and often we have set schedules, schemas and scripts for different situations.



TERMS TO KNOW

Assimilation

Adding new information to an existing schema, or mental pattern

Accommodation

Either modifying an existing schema to fit new information, or creating a new schema



SUMMARY

This tutorial discussed **Jean Piaget's** theory of cognitive development which states that individuals are active participants in learning. **Schemas** are basic mental structures to put information into context. Schemas are constructed by **assimilation**, adding information to existing knowledge and **accommodation**, creating new categories of information.

Good luck!

Source: This work is adapted from Sophia author Erick Taggart.



TERMS TO KNOW

Accommodation

Either modifying an existing schema to fit new information, or creating a new schema.

Assimilation

Adding new information to an existing schema, or mental pattern.

Piaget's Theory of Cognitive Development

Jean Piaget's theory of cognitive development explains how children's mental processes and understanding of the world changes in four stages: Sensorimotor, Preoperational, Concrete Operational, and Formal Operations.

Schema

The basic mental structures around which we construct our knowledge.