

Piaget's Theory of Cognitive Development

Cognitive theories focus on how our mental processes or cognitions change over time. Cognitive theories describe an interaction between the child and the environment, in which development occurs through a “constant process of going back and forth between the person and the environment” (Piaget, 1929). Theorists who studied cognitive development include Jean Piaget and Lev Vygotsky. John Dewey, an American educational philosopher and psychologist, also proposed important concepts about children think and learn.



Jean Piaget (1896-1980) envisioned the developing child as an actor within a social world of embedded meanings. Piaget is recognized as one of the most influential cognitive theorists in the field of child development. He was one of the first to recognize and map out the ways in which children's intelligence differs from that of adults (Piaget, 1929). His perspective on development was shaped by his early interest in the natural sciences, while his views on cognition began to take form while he worked with Theodore Simon trying out new reasoning (IQ) tests on children.

Piaget was not interested in whether a child's answer was right or wrong, but rather in the underlying reasoning process that led to the answer—the logic behind the answer. He spent the rest of his life studying the intellectual development of children. His theory continued to evolve throughout his lifetime, based on repeated naturalistic observations of children, including his own three children. Piaget proposed that children's intellectual skills change over time and that children of different ages interpret the world differently. He believed that young children **construct** knowledge in the course of thinking about physical actions and that children are continually reorganizing their ideas about the world as they interact with people and objects.

Piaget theorized that, as their brains mature and children experience the world through action, they progress through four broad stages of thinking. Each stage is qualitatively different and more adapted to understanding the world. The four cognitive stages are:

- **Sensorimotor**
- **Preoperational**
- **Concrete Operational**
- **Formal Operation**

These broad stages of cognition are summarized in the table below. It is important to remember that the age ranges are approximate and are influenced by the child's experiences and environment. There is considerable variation across cultures in what children are able to do at certain ages:

Piaget's Stages of Cognitive Development

Stage	Approximate Age Range	Description
Sensorimotor	Birth – 2 years	<ul style="list-style-type: none"> • Infants and toddlers understand the world in terms of physical actions on the environment. • Infants move from simple reflexes to an organized set of behaviors.
Preoperational	2 – 7 years	<ul style="list-style-type: none"> • Young children concentrate on constructing a world of permanent objects. • Preschool children can use mental symbols to represent objects and events. • Language is developing rapidly through dramatic play. • Social games and games with rules emerge as children become increasingly involved in social play with peers.
Concrete Operational	7 – 11 years	<ul style="list-style-type: none"> • Children's reasoning skills become more logical. • Thinking becomes decentered, dynamic and reversible. • Children can organize objects into hierarchies of classes. • Children have developed a theory of mind, although they may still have difficulties taking on the perspective of another person. • Children are beginning to take intentions into account in their moral judgments.
Formal Operational	11 years on	<ul style="list-style-type: none"> • Adolescents can think systematically, can reason about abstract concepts, and can understand ethics and scientific reasoning. • Adolescents can generate hypotheses. • Moral reasoning has evolved to understand that rules are a result of mutual agreement

References

Piaget, J. (1929). *The child's conception of the world*. London: Routledge.

Piaget, J. (1950). *The psychology of intelligence*. London, UK: Routledge