

Accommodation in psychology example

Accommodation is the process by which we update our existing knowledge with new information that challenges our previous thoughts. As we encounter new experiences, our mental frameworks or schemata evolve to incorporate this fresh information. This adaptation is known as accommodation. According to Jean Piaget's theory of cognitive development, when we come across new information that conflicts with our existing knowledge, it creates a state of disequilibrium. To restore equilibrium, we either adjust an existing schema by adding new information (assimilation) or create a new one (accommodation). For instance, a child may have a schema for "dog" that includes characteristics such as fur and four legs. When they encounter a cat, which doesn't fit their existing schema, they must accommodate the new information by creating a separate schema for cats. In another scenario, a child owns a poodle and notices a dachshund, but initially mistakes it for a dog due to its similar appearance. However, when corrected that it's actually a different breed, their "dog" schema is refined to include both types of dogs. Conversely, if they see a cat resembling a poodle, their existing schema. Similarly, infants develop schemas for various sensations, such as soft fabrics and squishy toys, which helps them differentiate between edible and non-edible objects. As their visual cortex matures, they form separate visual schemas for family members like "mom" and "dad." For the first time, students replace their existing "teacher" schema with new versions as they learn to read CVC words. Initially, they struggle to understand new information, but eventually, they adapt and form separate schemas for each subject, incorporating key descriptors like Math being hard and Art class being fun. As students progress through education, their schemas continue to evolve, adjusting to accommodate new knowledge about different subjects. In training, middle-managers must also update their existing schemas for authoritarian leadership to learn about transformative, servant, and collaborative leadership styles. This process of assimilation and accommodation is observed in babies who encounter new objects, such as magazines. Initially, they apply their existing schema for iPads, but when this doesn't work, they experience a state of disequilibrium until they create a new schema that includes descriptors like "broken" and "not fun". Cognitive robotics involves teaching robots is more complex than it seems, as actions like cutting or chopping require similar movements performed with various tools on different objects in different ways. Researchers used Piaget's framework to enhance understanding of robots, creating a large action dataset consisting of eight actions performed by five individuals using 30 different objects. This study highlights the challenges of programming robots and the importance of understanding human cognitive development in developing intelligent robots. Learning frameworks designed by researchers proved highly effective in developing cumulative memory of actions, similar to human learning processes proposed by Jean Piaget in 1953. The concept of accommodation can occur over an extended period, such as decades or centuries. A notable example is the transformation of gender roles in Western cultures like the US over the last century. Initially, both men and women worked on farms, but with industrialization, new economic parameters led to a shift in roles, making them more defined. This process continued during World War I and II, and again in the 1950s, as societal needs changed. Reinking et al.'s (2000) work suggests that digital technologies can be understood through Piaget's classical theory of learning development. They propose building a development. They propose building a development of learning development. instructional subjects, representing accommodation. According to the authors, educators' views on technology are shifting away from assimilation towards accommodation. Defining accommodation processes. Students develop and refine their schemata throughout their education, with existing information becoming increasingly complex and splitting into new concepts. This process continuely assimilating and accommodating knowledge as scientific understanding evolves. Piaget believed that life experiences don't fit neatly into pre-existing frameworks, leading to significant transformations and sometimes the creation of unique ones. Humans continually modify and develop their mental models through a process called accommodation, which can be seen in various aspects of life, from babies trying new foods to scientists making groundbreaking discoveries. By allowing for flexibility in the concept of accommodation, we can observe its applications in diverse fields, such as cognitive robotics and societal changes in gender roles. The idea that these far-reaching effects stem from a single psychologist's observations of his own children over 80 years ago is remarkable. Recent studies have expanded upon Piaget's theories, including research on robots (Aksoy et al., 2014) and a systematic review of assimilation and accommodation (Hanfstingl et al., 2021). Assimilation is a process where new information modifies or updates an existing knowledge schema, often leading to a refinement of understanding. This can occur when encountering congruent but new information, which amends the existing knowledge. The concept is evident in various aspects of human learning and development. In childhood, children's schemas evolve as they encounter new experiences. For instance, a child who owns a poodle may initially categorize all dogs as "dogs," but after spotting a dachshund, their schema expands to include both types. Similarly, correcting a child's misconception about cats being dogs teaches them to differentiate between species. Infants and toddlers also develop schemas for familiar faces like mom and dad, while adjusting their understanding of what can be eaten based on trial and error. As individuals progress through education, they continually refine and adapt their knowledge schemas to accommodate new styles, such as transformative or collaborative leadership. In everyday life, people's understanding of cultural norms and behaviors can also shift as they encounter new experiences. The ability to adapt and assimilate new information is crucial for personal growth and development. Given text here The concept of iPads and similar devices being held by babies led to an exploration of their impact on young children. Cognitive robotics involves endowing robots with intelligent behavior through teaching them rules of accommodation and assimilation. However, programming a robot is more complex than expected due to the similarity in movements for various actions and tools used for different objects. Researchers utilized Piaget's framework to develop a large dataset of 120 demonstrations to test incremental learning. The framework proved effective, as it allowed machines to develop a cumulative memory of actions similar to human learning processes. Accommodation can occur over time, such as the shift in gender roles in Western cultures. Reinking et al. (2000) suggest building a developmental framework for technological integration around Piaget's classical theory of learning through assimilation and accommodation. Processing programs have become an essential tool for teachers, helping to streamline their workflow. more significant challenge, requiring educators to adapt their approach, as Piaget would refer to it as accommodation. According to the authors, technology is increasingly being combined with multimedia presentation software, such as PowerPoint, to engage students in creating multimedia documents for classroom projects. This shift suggests that educators' views on technology and literacy are moving away from assimilation towards a more adaptive approach. In this context, accommodation refers to the process of altering an existing schema to incorporate new information and experiences. early childhood, which evolve and become more complex as they progress through education. For instance, students' understanding of words, objects, and rules evolves significantly from kindergarten to graduate studies, with each stage introducing new schemata that refine their existing knowledge. Even seasoned professionals, such as scientists, continue to adapt and assimilate information throughout their careers. The concept of accommodation has far-reaching implications, extending beyond education to fields like cognitive robotics and societal changes in gender roles. Its significance lies in the ability of individuals to make continuous adjustments to their understanding, enabling them to cope with an ever-changing world. In Piaget's theory of cognitive development, accommodate new learning. This is part of the adaptation process, allowing people to modify their understanding of the world to better fit reality. According to Piaget, accommodation complements assimilation, another key concept in his theory. Assimilation occurs when new information is incorporated into an individual's existing mental structures or schemas, making it easier to understand and integrate. becomes necessary. Accommodation involves a reorganization of complex concepts. For instance, a child may initially define birds as creatures that can fly and have feathers, but upon encountering a penguin, which is a bird but cannot fly and looks different from others, accommodation occurs. The process of accommodation helps individuals gradually build more complex mental structures and develop a more accurate understanding of the world around them. It is not limited to children, as adults also undergo this process when acquiring new information. When encountering new or challenging information, individuals must either assimilate it into their existing schemas or accommodate it by changing their schema or forming a new category for what they have learned. Accommodation and assimilation are distinct processes. Accommodation involves modifying existing schemas to fit the new information, whereas assimilation involves incorporating it into an existing mental structure. The distinction lies in the type of information encountered: accommodation occurs when individuals face new or conflicting information, while assimilation happens when they encountered accommodation is a vital process in learning that involves modifying existing knowledge and mental structures to incorporate new information, accommodation requires more cognitive effort but leads to a more accurate understanding of the world. This adaptation enables individuals to expand their mental schemas, refine their thinking patterns, and correct misconceptions, ultimately fostering cognitive growth and flexibility. Through accommodate new information that conflicts with existing beliefs, leading to a more balanced and adaptive cognitive system. By incorporating new knowledge and refining existing structures, accommodation facilitates effective learning outcomes and enables individuals to build upon their existing knowledge, constructing a more comprehensive understanding of the world.