

# Psychology: piaget and skinner essay sample

[Psychology](#), [Behaviorism](#)



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The cognitive perspective is a theory that attempts to explain human behaviour by understanding our thought process. Our information process is compared to that of a computer: Inputting, storing and receiving data. One of the most famous cognitive psychologists was a scientist called Jean Piaget (1896-1980). According to Piaget, understanding comes in the form of 'schemas' (Fritscher, 2011). Schemas are cognitive structures that represent certain aspects of the world (pre-conceived ideas for things). Schemas develop through at least two processes: assimilation and accommodation. Assimilation is simply adding new information into an existing schema but keeping the general idea the same. Accommodation is the process in which we change our existing schema. The person will try to fit the old schema round the new information but in the end they just accommodate a new schema (Atherton, 2011). Through observing and listening to his own children, Piaget proposed that their thinking does not develop smoothly; instead they go through stages.

" Each stage is characterized by an overall structure in terms of which the main behaviour patterns can be explained" (Gross, page 739). Stage one is called ' The sensorimotor stage' (0 - 2 years old). At this age, children use sensory and motor information to make schemas. They become self aware and they see object permanence (McLeod, 2010). Stage two is called ' The pre-operational stage' (2 - 7 years old). The child is now beginning to talk and can interact with others using speech and other forms of communication. They start forming their own viewpoints from what they know but they are egocentric and don't adapt well to others viewpoints. Piaget's most famous experiment ' the three mountains task' (1940's)

demonstrated such egocentrism. The experiment consisted of a child sitting at a table in front of three different mountains. One had snow on top, one had a hut at the top and the other had a red cross on the top. The child was allowed to move around the models and choose a side to sit. Piaget would then place a doll at various places around the table. The child is then shown ten photographs of different viewpoints and has to point out the photo that indicated the dolls point of view.

Egocentrism is proven when the child picks out the photo that shows their point of view, not the dolls. The result was that a four year old would always choose the wrong photo whereas a seven year old was able to think more logically and be able to choose the correct viewpoint. Piaget came to the conclusion that this was because Children in the preoperational stage are able to focus on only one aspect or dimension of a problem. If a child is playing with four red and four blue building blocks and you ask them to divide them equally, they will automatically group all the red ones together and all the blue ones together. Stage three is called 'The concrete operational stage' (7 - 11 years old). At this stage the child is now beginning to think logically about objects and events. Intuition is replaced by confident ideas but the child can only work with 'concrete' ideas rather than hypothetical ones. Piaget believed this was a major turning point in a child's learning development. Stage four is called 'The formal operational stage' (11+ years old). This is the final cognitive stage. When a child hits this age, they can start using abstract ideas and are confident enough to ask questions and explore the unknown.

They use a more systematic approach and try all possibilities to find answers and gain the ability of conservation. Piaget conducted an experiment called 'the pendulum task'. This experiment involved a length of string and a set of weights. The child had to consider three factors: the length of the string, the heaviness of the weight and the strength of push. The task was to work out which factor was most important in determining the speed of swing of the pendulum. Participants can vary the length of the pendulum string, and vary the weight. The results were children in the formal operational stage tested one variable at a time to see its effect. However, younger children tend to try out these variations randomly. Experts have argued "...the clear-cut ages and stages forming the basis of Piaget's theory are actually quite blurred and blend into each other" (Donaldson, page 57).

In Donaldson's book, 'Children's Minds', she suggests that Piaget may have underestimated children's language and thinking abilities by not giving enough consideration to the contexts he provided for children when conducting his research (Castella, 2011). Although Piaget's theory gives us a brief understanding of how children's learning develops, not all children are taught the same way nor do they learn at the same pace. Each of the four stages have been criticised by experts. For instance on evaluation of the sensorimotor stage; Bower (1982) found that children display object permanence at a much younger age than Piaget suggested. We can agree or disagree with Piaget's theory but one thing is certain, we will always imagine the stages whilst observing our children grow "... it is certainly true that, whether we agree with the theory or not, Piaget has changed the way we think about children's thinking" (Sternberg, page 761).

The behavioural perspective is an assumption that our identity is shaped by our surroundings. The people we know, the schools we attend and even how much money we have in our bank accounts can make us who we are. There are two theories involved: classical conditioning (Ivan Pavlov) and operant conditioning (B. F. Skinner). Classical conditioning is a theory that involves learning a new behaviour via the process of association (McLeod, 2008). For example when a person is sick after eating a certain food, they tend to avoid eating it again for a while as they associate that food with being ill. Operate conditioning is when we use rewards and/or punishment to get the desired response. “ To put it very simply, behaviour that is followed by pleasant consequences tends to be repeated and thus learned. Behaviour that is followed by unpleasant consequences tends not to be repeated and thus not learned” (Alberto & Troutman, page 12). For example when a child misbehaves in a supermarket, if you ignore bad behaviour, you are showing the child that it is not tolerated. If the child shows brilliant behaviour, you may reinforce it by giving sweets or positive praise.

B. F. Skinner believed that the best way to understand behaviour is to look at the causes of an action and its consequences (B. F. Skinner, 1948, 168-172). He studied operant conditioning by conducting experiments using animals which he placed in a ‘ skinner box’ (McLeod, 2007). Skinner showed how positive reinforcement worked by placing a hungry rat in his ‘ Skinner box’. The box contained a lever in the side and as the rat moved about the box, it would accidentally knock the lever. When the lever gets knocked, a food pellet would immediately drop into a container next to the lever. The rats quickly learned to go straight to the lever. The consequence of receiving

food if they pressed the lever ensured that they would repeat the action again and again.

On the other hand Skinner also showed how negative reinforcement worked by placing a rat in his 'Skinner box' and then subjecting it to an unpleasant electric current. As the rat moved about the box it would accidentally knock the lever. As soon as it did so, the electric current would be switched off. The rats quickly learned to go straight to the lever after a few times of being put in the box. The consequence of escaping the electric current ensured that they would repeat the action again and again. Looking at all the information on both classical and operant conditioning, it is clear to see that our environment has a major influence on human behaviour. Operant conditioning is still widely used and is often applied in classrooms and the workplace (Tuckman, 2003-2009). It can appear in many forms:

- \* Consumable (e. g. Sweets)

- \* Social (e. g. Praise)

- \* Activity (e. g. Time using computers, extra time for break) \* Exchangeable

(e. g. Stickers for good behaviour, merits for good work) Psychologists who practice the operant conditioning theory believe that learning only occurs through reinforcement. This is one of the biggest criticisms from experts as they believe that it is incorrect. Another criticism is that operant conditioning is inhumane as it takes away a person's free will. Carl Rogers (1902-1987), a psychologist who practices the humanistic perspective, believed in unconditional positive regard (psychandsensibility. wordpress. com). Rogers debated that Skinner's world is one without freedom or meaning. Another

downfall in Skinner's theory is that children with autism may need an intense behavioural programme that includes a minimum of 20 hours a week for one individual. This would not be possible in most public schools (Forti, Sollner 1999) There is no doubt that operant conditioning is a great pillar of teaching children wrong from right, but part of being human is learning from your mistakes.

#### References:

\* Alberto, P. A., & Troutman, A. C. (2006). Applied behaviour analysis for teachers (7th edition), Pearson, page 12 \* Atherton, J S. (2011). Learning and Teaching; Piaget's developmental theory [Online] <http://www.learningandteaching.info/learning/piaget.htm> [4/10/2012] \* Castella, Claire. (2011). Jean Piaget's Theory on Child Language Development [Online]] [http://www.ehow.com/about\\_6587239\\_jean-theory-child-language-development.html](http://www.ehow.com/about_6587239_jean-theory-child-language-development.html)