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Sensorimotor Stage of Cognitive Development

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The sensorimotor stage is the first of the four stages in Piaget's theory of cognitive development. It extends from birth to approximately 2 years, and is a period of rapid cognitive growth.

During this period, infants develop an understanding of the world through trial and error using their senses and actions (i.e., motor movements).

Through the processes of assimilation and accommodation actions become progressively adapted to the world.

Sub-Stages: Development & Examples

The sensorimotor stage of development can be broken down into six additional sub-stages including simple reflexes, primary circular reactions, secondary circular reactions, coordination of reactions, tertiary circular reactions, and early symbolic thought.

The first substage (first month of life) is the stage of **reflex acts**. The neonate responds to external stimulation with innate reflex actions.

For example, if you brush a baby's mouth or cheek with your finger it will suck reflexively.

The second substage is the stage of **primary circular reactions**. The baby will repeat pleasurable actions centred on its own body.

For example, babies from 1 – 4 months old will wiggle their fingers, kick their legs and suck their thumbs. These are not reflex actions. They are done intentionally – for the sake of the pleasurable stimulation produced.

Next comes the stage of **secondary circular reactions**. It typically lasts from about 4 – 8 months. Now babies repeat pleasurable actions that involve objects as well as actions involving their own bodies.

An example of this is the infant who shakes the rattle for the pleasure of hearing the sound that it produces.

The fourth substage (from 8 – 12 months) is the stage of **co-ordinating secondary schemes**. Instead of simply prolonging interesting events, babies now show signs of an ability to use their acquired knowledge to reach a goal.

For example the infant will not just shake the rattle, but will reach out and knock to one side an object that stands in the way of it getting hold of the rattle.

Fifth comes the stage of **tertiary circular reactions**. These differ from secondary circular reactions in that they are intentional adaptations to specific situations. The infant who once explored an object by taking it apart now tries to put it back together.

For example, it stacks the bricks it took out of its wooden truck back again or it puts back the nesting cups – one inside the other.

Finally, in substage six there is the beginning of **symbolic thought**. This is transitional to the pre operational stage of cognitive development. Babies can now form mental representations of objects.

This means that they have developed the ability to visualise things that are not physically present. This is crucial to the acquisition of object permanence – the most fundamental achievement of the whole sensorimotor stage of development.

Object Permanence

The main development during the sensorimotor stage is the understanding that objects exist and events occur in the world independently of one's own actions ('the object concept', or 'object permanence').

For example, if you place a toy under a blanket, the child who has achieved object permanence knows it is there and can actively seek it. At the beginning of this stage the child behaves as if the toy had simply disappeared.

The attainment of object permanence generally signals the transition to the next stage of development (preoperational).

References

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