PIECCE
PROJECT FOR INCLUSIVE EARLY CHILDHOOD CARE & EDUCATION

Language diversity: Appendix Three

What can we learn from Piaget?

Adapted from Gultig (2010). Learners and learning, Section 2 page 42–45 downloaded from https://www.oerafrica.org/system/files/8806/learners-and-learningsection-2_0.pdf?file=1&type=node&id=8806&force=1

Editor's notes

Jean Piaget (1896–1980) developed a theory of knowledge and of the cognitive processes whereby people come to know the world. It is one of the most important psychological theories of the twentieth century.

The importance of action

From Piaget's perspective, all knowledge is constructed through our *action* in the world. He argued that we can only know about things if we *act on them*. Very small babies, for instance, get to know the world around them by touching and tasting things (although exasperated mothers try and curb this guessing and acting behaviour). As children get older, they literally get to know their world by *moving about in it* – learning to crawl, then walk, and bumping into things. Through these actions babies learn what's hard and what's soft, what's heavy, what's painful and what's not. Piaget argues that *action* continues to be very important for all thinking throughout our lives, although its nature changes. Older children and adults also use physical actions – similar to those of the small child – to learn about the world. But the action increasingly happens in the *mental* realm – the act of thinking. This is how Piaget (1968) explained this point:

> *Logical relationships are, first and above all, operational structures. Although their most advanced forms are certainly expressed by language, their origins are found in the co-ordination of (a person's) own actions. Even at the sensory-motor, pre-verbal level, a child is involved in activities that include uniting, ordering, introducing correspondences etc. These activities are the source of operations and logicomathematical structures.*

Equilibrium: accommodation plus assimilation

Piaget first suggested that the development of knowledge occurs through the process by which we seek a state of *equilibrium*, or balance, between our previous knowledge and new things we encounter in the world. Like a tightrope walker adjusts his or her physical balance, we all *mentally adjust and readjust our thinking* in response to new objects and events. Piaget identified two mental processes that enable us to perform this balancing act: *assimilation* and *accommodation*. He argued (Piaget, 1968: 140–141):

> *Knowledge is not determined strictly by the knower, or by the objects known, but by the exchanges or interactions between the knower **and** the objects (between organism and the environment). The fundamental relation is not one of simple association but of **assimilation** and **accommodation**. The knower assimilates objects to the structures of his actions (or of his operations), and*

at the same time he accommodates these structures (by differentiating them) to the unforeseen aspects of the reality which he encounters.

The process of coming to know things is not, in Piaget's words, 'having a static mental copy of the object'. We become knowledgeable by 'effecting transformations' on what we are trying to understand and, by so doing, 'reaching some understanding of the mechanisms of these transformations'.

What have we learnt about learning?

Consider this story of a young child learning about snakes and lizards.

Stop and think

1. Think about how Piaget would explain this child's learning.
2. Make some notes for yourself, and then compare your notes with the comment:

Comment

We think Piaget would explain the child's thinking process in the following way:

- As the child sees the snake she focuses on what is familiar, and *assimilates* her perception of the snake into her 'schema' of a lizard (pictures 1 and 2).
- But then she notices the differences between what she knows about lizards and the actual snake in the picture. By noticing the differences, she begins to feel unsure and experiences a state of *disequilibrium* (picture 3).
- With the help of feedback from the environment – maybe a teacher, but based initially on her action of looking at the snake and noticing the absence of legs – she develops a new understanding (a new schema) of what a snake is (picture 4).
- This enables her to *accommodate* the differences.

Without assimilating (using her previous knowledge to make sense of what she sees), the child would be unable to understand the world. However, without accommodating the new and different information that she encounters, her knowledge would remain static and unchanging. Both aspects of her thinking enable her to achieve new and more complex states of mental equilibrium.

Piaget's theory offers a formal explanation of an answer to the question, "How does the unknown become known?" We do so through a process of equilibration. This involves:

- Connecting new information to what we already know (assimilation);
- Noticing, through our action (which includes thinking about what we are doing or looking at), that our understanding doesn't quite explain things (disequilibrium/conflict);
- Filling in missing gaps in our knowledge by identifying other facts that will help us interpret new information; and
- Recognising novel and contradictory aspects of new knowledge that our previous understandings cannot account for, and accommodating these into our new and more advanced understanding.

References

Piaget, J. 1968. A theory of development. In *The International Encyclopaedia of the Social Sciences*. New York, McMillan.

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