Schema Theory

General

Concept of schema theory, one of the cognitivist learning theories, was firstly introduced in 1930s through the work of British psychologist Sir Frederic Bartlett and was developed in 1970s by American educational psychologist Richard Anderson. This theory views **knowledge as a network of mental frames**. Each of this frames (sg. ***schema***, pl. *schemata*) **represents a part of our knowledge**.

What is schema theory?

Schema, a term introduced by Bartlett and later expanded in meaning by Anderson, is nowadays often used even outside cognitive psychology and refers to a **mental framework humans use to represent and organize remembered information**. Schemata present our personal simplified view over reality derived from our experience and prior knowledge, **they enable us to recall, modify our behavior, or try to predict most likely outcomes of events**.

Schemata also expand and change in time, due to acquisition of new information, but deeply installed schemata are inert and slow in changing. This could provide an explanation why some people live with incorrect or inconsistent beliefs rather then changing them.

One of the **encouragements** of schema theory came **after unsuccessful attempts in the area of artificial intelligence**. Teaching a computer to read natural text or display other human-like behavior was rather unsuccessful since it has shown that it is impossible without quite an amount of information that was not directly included, but was inherently present in humans. In case of reading, it was information that in human reader would be included in form of *writing schema*.

Schema theory was a starting point for many other cognitivist theories and theorists like Jean Mandler, David Rumelhart (modes of learning) or Marvin Minsky (frame theory) who have further expanded it's concepts, and was also included in works of many other theorists like Sweller (cognitive load theory), Ausbell (assimilation theory) and others.

What is the practical meaning of schema theory?

Schema theory emphasizes **importance of general knowledge and concepts** that will form schemata. In educational process the task of teachers would be to **help learners to develop such schemata** and **establish connections between them**. Also, due to the importance of prior knowledge, teachers should assure students have it.

Keywords and most important names

- **schema theory**, **schema**, **schemata**
- Sir Frederic Bartlett, Robert Anderson, Marvin Minsky, David Rumelhart, Jean Mandler, Roger

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"Schema theory of learning."

"Schema Theory."

Read more

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