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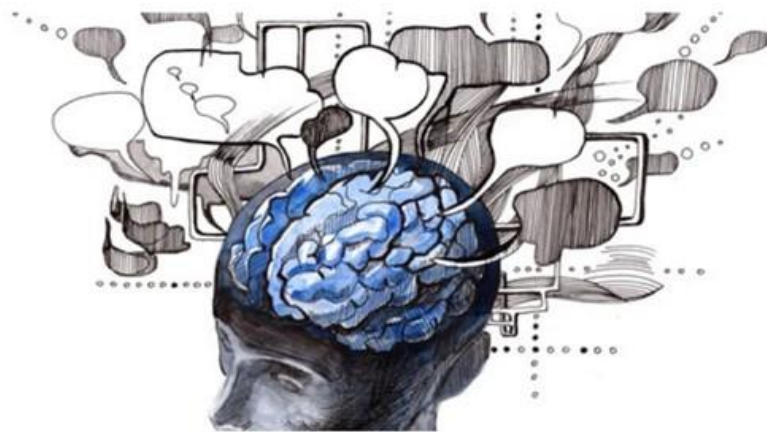
DIVISIÓN DE
CIENCIAS
SOCIALES Y
HUMANIDADES

What Is Going Through Your Mind? Thinking Aloud as a Method in Cross-Cultural Psychology

Thinking aloud: An Inquiring Technique

Thinking aloud is the concurrent verbalization of thoughts while performing a task (Ericsson and Simon, 1993). When this method is applied, participants are asked to spontaneously report everything that goes through their minds while doing a task, and they are instructed not to interpret or analyze their thinking. Verbal protocol is another term often used as a synonym for thinking aloud. Verbal protocols can be concurrent (thinking aloud) or retrospective, referring to short reports after the completion of a task.

The study of thinking aloud and of verbal protocols has a long tradition in psychology. It can be traced back to Wilhelm Wundt's technique "Selbstbeobachtung" (self-observation, also often called introspection). Wundt asked participants in his experiments to look inward, pay attention to their inner thought processes, and describethem in detail. Wundt perceived the inner experience, the flow of consciousness, as the core topic of psychology. He saw self-observation as an appropriate method for studyingthis flow of consciousness when it occurred under controlled conditions in the laboratory. Some researchers criticized the method, believing that self-observation would interfere with the thought process and, thus, would not show the real thought process itself, but rather an interpretation of the thought process.

The thinking-aloud method was heavily criticized by behaviorists, as they assumed cognitive processes, such as memory, could not be studied scientifically. As Watson (1925) expressed, "The behaviorist never uses the term memory. He believes that it has no place in an objective psychology" (p. 177).

The thinking-aloud method became popular again after the influence of behaviorism diminished in mainstream psychology and cognitive psychology became the dominant paradigm. Newell and Simon (1972), for example, asked participants to think aloud while solving particular problems. Rather than investigating whether a person solved a problem or not, their focus was on the process of human reasoning while solving problems. From these thinking-aloud protocols, they derived the computer-simulated model "General Problem Solver."

A study conducted by Ericsson and Chase (1982) on exceptional memory showed that a student could increase his digit span from 7 (e.g., 3-5-1-3-7-8-2), the average number of digits a person is able to remember, to 80 digits by training 1 h per day, three to five times a week for 20 months. Retrospective verbal protocols showed that the participant used specific mnemonics to help him remember. One mnemonic was to group the digits together in meaningful units, which is called chunking. For example, the three digits 3 5 1 could be grouped together as one chunk of "3 min 51 s – close to world record mile time," which, if the participant was a long-distance runner, as this participant was, would make sense and, thus, would be easier to remember. Since the publication of Ericsson and Chase's work, thinking aloud has been recognized as an acceptable and even essential method in the study of human cognition.

Vocabulary:

What Is Going Through Your Mind? Thinking Aloud as a Method in Cross-Cultural Psychology

Concurrent: Simultáneo

Thoughts: Pensamientos

Performing: Realizando

Task: Tarea/actividad

Inward: Interior

Flow: Flujo

Heavily: Duramente

Behaviorist: Conductista