

Key concepts in ELT

Schemas

A schema is a mental representation of a typical instance. Schema theory suggests that people understand new experiences by activating relevant schemas (also called 'schemata') in their minds. They then assume, unless there is evidence to the contrary, that the new experience conforms to their schematic representation. Schematic processing allows people to interpret new experiences quickly and economically, making intelligent guesses as to what is likely, even before they have explicit evidence.

Thus, if I tell you that 'I went to a restaurant last night', you are likely to assume (without being told) that I sat on a chair, ordered a meal, paid, and left. If you later discover that I sat on the floor, cooked the meal myself, robbed the till at gunpoint, or stayed all night, you will adjust your understanding accordingly. Schemas vary according to cultural norms and individual experience: whether restaurants are expected to serve alcohol, whether they are routine or special places to eat.

Schema theory was proposed by the gestalt psychologist Bartlett (1932) who observed how people, when asked to repeat a story from memory, filled in details which did not occur in the original but conformed to their own cultural norms. The theory was further developed in the Artificial Intelligence work on perception and text processing during the 1970s (e.g. Schank and Abelson 1977), where a number of terms for types of schema, such as 'scripts' and 'frames', were also developed. In the 1980s, schema theory became an important component of discourse analysis (Sanford and Garrod 1981), reading theory (Carrell and Eisterhold 1983), and applied linguistics (Widdowson 1983, 1984).

Schema theory is important to language teaching because schematic knowledge is an essential component of successful communication as linguistic knowledge (Widdowson 1983). It can help explain students' comprehension problems and suggest the kind of background knowledge they need. As well as this general relevance, schema theory also explains some more specific phenomena in language production and processing. The use of the definite article with a noun, for example, can be determined by schematic

expectation, even though the noun is being used for the first time: 'We ordered a taxi. The driver took a long time finding the house'. Schema theory can also explain how we choose unconsciously between homonyms. We are unlikely to assume the sentence 'The King put his seal on the letter.' to be about an aquatic mammal, because that is not the kind of seal in most 'king schemas' (Lehner, quoted in Cook 1989).

The importance of schematic knowledge is now widely acknowledged in language teaching theory, and linked in particular to the importance of developing cultural knowledge in learners. It should be remembered, however, that while schemas allow humans to process communication fast without paying attention to every minor detail, they can often also be restrictive (Cook 1994). A negative stereotype, for example, is a schema which leads to a refusal to perceive new information or to change one's ideas. In unfamiliar situations, attention to detail and a willingness to abandon and change our schemas are still the hallmarks of a flexible and open mind.

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