“Is it funny?” or “Is it strange?” Investigating humor through cognitive psychology

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Humor is a multifaceted function unique to human beings, like language and symbolic thought. Theories of humor propose different frameworks to investigate this function empirically; here, we applied a cognitive-psychology approach, focusing on a specific humor task. We asked 32 participants to listen to 30 jokes intermixed with 30 non-jokes that had an implausible ending, and to decide whether or not each stimulus was funny (Humor Decision Task, HDT). In a control task, 30 plausible stories were intermixed with 30 stories with an implausible ending and participants had to decide whether or not each stimulus was “strange” (Implausibility Decision Task, IDT). Response times (RT) in correct responses indicated that the two tasks involved different cognitive operations: while “yes, funny” responses were 256 ms faster than “no, not-funny” responses, “yes, strange” responses took the same time as “no, not-strange” ones. IDT results could be explained by assuming that participants used the degree of semantic overlap between the setup and the ending of the story to select a response. Two different cognitive accounts for the HDT results are offered, the “recognition” and the “sequential attempts” model. According to the “recognition” account, participants activate long-term memory (LTM) abstract representations of the semantic structure of jokes, while the “sequential attempts” account implies a trial-and-error strategy to find a solution to the puzzle posed by a punchline that is not already available in LTM. The RT pattern observed in incorrect responses led us to reject the “recognition” account and support the “sequential attempts” hypothesis.