Introduction
Metacognition is the ability to monitor cognitive processes. It can be guided by epistemic feelings, which are subjective and spontaneous experiences occurring in response to cues or situations (1).

A recent view of Autobiographical Memory (AM) has supposed that AM retrieval is guided by epistemic feelings accompanying cue processing such as feelings of familiarity (2).

This assumption is based on the metacognition literature, notably on Feeling-of-Knowing studies that showed that familiarity leads to a sensation of target accessibility, which eventually leads to retrieval attempts (3).

Research Purpose
Investigate the presence of metacognition in the early stage of cue elaboration in AM retrieval with a new procedure: the Feeling-of-Retrieval.

Method

(A) In a Go/NoGo task, participants indicated whether cue words would facilitate an AM access (fluent access cues) by pressing the spacebar or if they would not (limited access cues) by not responding. Each cue word was displayed for 2 seconds (Exp1) or 1 second (Exp 2), followed by a brief fixation cross.

At the end of the task, participants indicated how often they relied on a successful retrieval to respond.

(B) In a filler task, participants determined whether presented letter strings were real-words or non-words and were asked to recall as many real-words as possible.

(C) Participants had to generate AMs in response to both fluent and limited access cues and to rate how easy it was to generate the memory. The time they needed to generate a memory was recorded and used as an indicator of AM retrieval fluency.

Results

Effect of the type of cue on AM generation time

Autobiographical memories were generated faster in response to cue words categorised as fluent access cues than in response to cue words categorised as limited access cues.

Effect of the type of cue on the ease of generation rating

Autobiographical memory generation was rated as easier in response to cue words categorised as fluent access cues than in response to cue words categorised as limited access cues.

Conclusion

An objective measure (RT) and a subjective measure (participants’ ratings) have shown that participants managed to predict which cues would allow fluent access to their AM and which cues would not.

Two explanations can be proposed.

1. Without retrieval: participants based their prediction on epistemic feelings accompanying cue presentation.

2. With retrieval: as a majority of participants indicated that they based their predictions on successful retrieval, participants may have generated the same memories twice.

Based on the AM literature, it seems unlikely that participants managed to generate complete memories given the time they had to carry out the predictions (e.g., 4). These results thus support the hypothesis that metacognition is involved in the early stages of AM retrieval.

Contact

fabien.carreras@univ-grenoble-alpes.fr; a.tales@swansea.ac.uk; c.m.barney@swansea.ac.uk; christopher.moulin@univ-grenoble-alpes.fr; celine.souchay@univ-grenoble-alpes.fr

Bibliography


These studies were pre-registered on the OSF. Procedures and data can be found here: [link]

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