

Spontaneous strategies to resolve face naming failures: new data

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BACKGROUND

The retrieval of proper names in memory is particularly prone to failures (Brédart, 2017). A recent review of studies that have investigated how people try to overcome such failures in everyday life and in laboratory settings indicated that **people frequently use spontaneous strategies based on a mental search for semantic** (biographical details) or **contextual information** (where a person is usually met) about the target person in order to overcome name retrieval failures **rather than searching for phonological or orthographic information** (e.g. searching for the first or the last sound / letter of the name).

However, a number of cueing and priming studies have shown that **providing phonological information may help resolve experimentally-induced name recall failures, whereas providing semantic information is usually not helpful** (for a review see Brédart, 2018).

Unfortunately, instructions previously given when collecting participants' strategic behaviours make it difficult to be sure that participants based their responses only by reporting information they strategically searched for, and not information that were involuntarily retrieved. In the present study, **to eliminate or, at least, to reduce this bias, we used very explicit instructions specifying that the study focused on voluntary search for information.**

Aims of the present study : (a) to determine whether participants judge that phonological strategies are less effective and less easy to implement than semantic strategies, and (b) to investigate whether the relation between the reported frequency of use of a given strategy and its perceived efficacy (usefulness) could be mediated by its perceived ease of use.

METHOD

Participants: N = 71 (40 – 66 years, M = 52.96, SD = 7.12, 46♀). The n was determined a priori (medium size effect; power = 0.8; $\alpha = .05$; for a bias corrected bootstrap of mediation test (Fritz & MacKinnon, 2007).

Screening question:

“Are you sometimes momentarily unable to retrieve the name of person whose name you are sure to know?” All the participants answered positively.

Participants were explained that the aim of the study was to explore the strategies they use to resolve naming failures, and they were presented with the following list of possible strategies:

- I search for further biographical information about the person such as her/his profession, nationality or associated people
- Is search for the context in which I encounter the person (e.g., at work, on TV, in magazines, in the sports room, on the internet, etc.)
- I search for the first or the last sound of the target name
- I search for the first or the last letter of the target name
- I try find to number of syllables in the target name
- I search for names that sound similar to the target name

Participants were explicitly instructed to focus on information they voluntarily search for to help resolve a naming failure and to ignore information coming spontaneously to mind without voluntary search.

For each of the strategies mentioned above, participants were asked to estimate the 3 following parameters:

Please estimate how often you use this strategy from the following reference points:
0% = I never use this strategy every time 100% = I use this strategy every time

Response: _____ %

Please estimate how much this strategy is (or would be if you do not use it) easy to use from the following reference points:
0% = Not easy at all 100% = Very easy

Response: _____ %

Please estimate how much this strategy is (or would be if you do not use it) effective from the following reference points:
0% = It never works 100% = It works every time I use it

Response: _____ %

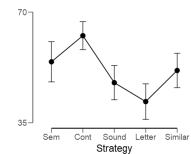
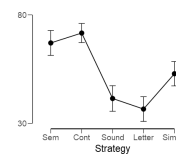
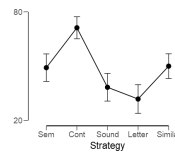
RESULTS

FREQUENCY OF USE, PERCEIVED EFFECTIVENESS AND EASE

Frequency of use:
Context retrieval > all other strategies (all $p < .001$)
Semantic – Phonological retrieval (sound, similar name) but > letter

Ease:
Context = Semantic Retrieval
Semantic > Phonological and letter retrieval (all $p < .02$)

Effectiveness:
Context > all other strategies (all $p < .05$)
No sign difference between semantic and phonological/orthographic strategies

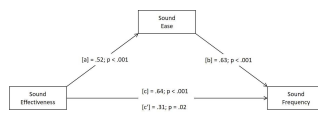


MEDIATION ANALYSES

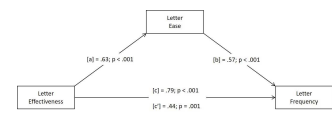
Semantic retrieval: the frequency of use was significantly predicted by the perceived effectiveness ($\beta = .42, p = .003, R^2 = .12$). However, no significant relation was found between efficiency and ease ($\beta = .16, p = .21, R^2 = .02$) or between ease and frequency of use ($\beta = .26, p = .08, R^2 = .06$).

Context retrieval: the frequency of use was significantly predicted by the perceived effectiveness ($\beta = .42, p = .003, R^2 = .12$). Similarly, effectiveness predicted reported ease ($\beta = .22, p = .029, R^2 = .07$). However, no significant relation was found between ease and frequency of use ($\beta = .04, p = .82, R^2 = .01$).

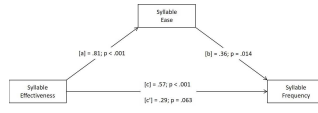
Sound retrieval



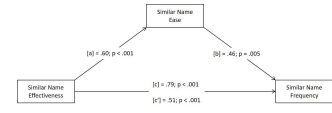
Letter retrieval



Syllable retrieval



Similar name retrieval



CONCLUSIONS

Context retrieval is the most frequent strategy used to resolve a name retrieval failure.

However, contrary to previous studies, we do not observe a higher frequency of use of a semantic strategy in comparison with the retrieval of the first/last sound and the retrieval of similar-sounding names.

Perceived effectiveness predicts the frequency of use for each strategy. A partial mediation of ease occurred for phonological strategies (retrieval of sound, letter or similar names) only, but not for semantic, contextual or syllabic strategies. For phonological strategies, a strategy that is perceived as effective will be more likely to be used frequently if it is also perceived as easy.

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