Altering Learners’ Memory Beliefs Affects Judgments of Learning

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Overview

Learners tend to give higher judgments of learning (JOLs; i.e., confidence ratings regarding the likelihood of future recall ability, where 0 = no confidence; 100 = complete confidence) to items presented in large font than to items in small font. Yet, recall typically does not differ as a function of font size. This finding is coined the font size effect (Rhodes & Castel, 2008). Debate surrounds whether people give higher JOLs to large font items because they seem more fluent (i.e., easier to process) than the small fonts (Rhodes & Castel, 2008), or because they enter the lab with preexisting memory beliefs that larger fonts will yield better recall than smaller fonts (Mueller, Dunlosky, Tauber, & Rhodes, 2014). We examined these competing theories using a 3 (Block) x 2 (Font size: small 18 point, large 48 point) x 3 (Instruction condition: small font, large font, control) design. All participants (N = 119) completed three blocks, each containing 24 word pairs, with half the items presented in each font size, instructions varying by condition, and cued recall tests at the end of each block. Block 1 examined baseline JOLs and the presence of the font size effect before telling two conditions that either small or large fonts were more memorable in Block 2. Block 3 provided debiasing instructions regarding font size’s impact. Of interest was whether JOLs would shift by altering memory beliefs. Results suggest that fluency has a greater role in JOLs than memory beliefs, but both are influential.

Explanation

- Word pairs in large font received higher JOLs than those in small font in Block 1, with the exception of Condition A where JOLs were similar for the two fonts.
- JOLs and recall followed biasing instructions in Block 2, while the control condition participants had higher JOLs and recall for large font than for small font items.
- Debiasing instructions changed JOLs in Block 3. Participants in all conditions gave higher JOLs for word pairs in large font than for those presented in small font.
- Thus, altering memory beliefs yielded shifts in JOLs. However, in the absence of these instructions, participants gave higher JOLs to items in large fonts, suggesting fluency also affects JOLs.
- Overall, the results suggest a combination of fluency and memory beliefs affect JOLs, but that fluency accounts for the majority of the variance.

Key Findings

![Graph showing mean JOLs and recall for different conditions and font sizes.]

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Impact

This research provided more information regarding the roles of fluency and memory beliefs in learners’ judgments and recall.