

Are You Sure About That? The Impact of Semantic Relatedness on Learning Through Testing, JOLs, and Passive Restudy

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Abstract

Recent work has shown that producing memory ratings during study may lead to greater retention than practice testing in some circumstances (Higham, 2023). This may be related to a phenomenon called judgment of learning (JOL) reactivity, in which making immediate JOLs during study can enhance later recall. However, JOLs and testing have not been directly compared in a typical testing effect (TE) paradigm. This study compared passive restudy, study with immediate JOLs, and testing in a TE paradigm. In Experiment 1, we found no clear TE and only tentative JOL reactivity when word pairs were not semantically related. In Experiment 2, the associative strength of the word pairs was increased. A robust TE emerged along with weak JOL reactivity. Importantly, testing significantly outperformed JOL and passive restudy. These findings are among the first to suggest that semantic relatedness is crucial for the TE and clarify how JOLs compare to testing.