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Abstract

[WORDS WILL GO HERE….]

Word count: XXX

*Keywords:* XXX; XXX; XXX; XXX

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It is important for individuals accurately monitor their progress when learning new information. Effective monitoring at encoding allows individuals to adjust their study strategies and can provide insights regarding strategies that would be effective for future learning tasks (Nelson & Narens, 1990). Metacognitive judgments are commonly used to obtain information about the learning process. While these judgments can take many forms, the judgment of learning task (JOL) is often used to assess online metamemory processes at encoding. In a standard JOL task, participants study cue-target pairs (e.g., cat-dog) and are tasked with predicting the likelihood that they would successfully recall the target (e.g., dog) if shown only the cue (e.g., cat) at test. While JOLs can be elicited using a variety of scales (see Hanczakowski, Zawadzka, Pasek, & Higham, 2013, for a review), JOLs are commonly recorded using a continuous 0-100 scale representing the percent likelihood of correctly recalling the target item at test (e.g., 100% = definitely will remember, 0% = definitely would not remember). The use of 100% scale is useful because it allows for easy comparison between predicted recall (assessed via JOLs) and the proportion of target items correctly recalled at test.

While research on JOLs has generally operated under the guise that having participants make metacognitive judgments at encoding does not affect learning, a growing body of research suggests that JOLs are *reactive*. JOL reactivity refers to any changes in memory performance that result from providing JOLs at encoding. The simplest way to test whether JOLs produce a reactive effect on learning is to compare recall performance for participants completing a JOL task to a control group in which participants silently read pairs at encoding (e.g., Janes, Rivers, & Dunlosky, 2018; Soderstrom, Clark, Halamish, & Bjork, 2015). Reactivity effects can potentially manifest in two ways, either as a boost to memory due to making JOLs (i.e., *positive reactivity*) or as a cost to memory (i.e., *negative reactivity*). However, although reactivity effects can be easily assessed via the inclusion of a no-JOL control group, this comparison is often absent in JOL studies, as researchers have either been more interested in specific effects on JOLs rather than memory performance or operated under the assumption that making JOLs at study had no impact on subsequent recall performance. [GOAL OF THE PRESENT PAPER HERE]

[MITCHUM ET AL 2016 – CHANGED-GOAL]

[SODERSTROM AND COLLEAGUES]

[general pattern of reactivity]

[MAXWELL HUFF – RELATEDNESS PROCESSES NOT FORECASTING]

Importantly, Maxwell and Huff (under review) showed that reactivity effects associated with JOLs are not limited to JOLs. [JAMS, FREQS, EXPLICIT RELATIONAL ENCODING]

[RATIONAL FOR MIXED VS PURE COMPARISON

[JANES ET AL. 2018, WITHERBY AND TAUBER, 2019]

[STRATEGIC PROCESSESS ARE ASSUMED]

[GOALS OF THE PRESENT STUDY]