Phrases don’t behave like words: Phrase frequency effects in recognition memory
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The wordlikeness of multi-word phrases

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<th>Frequency advantages</th>
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<td>Task</td>
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<td>Production</td>
<td>High &gt; Low¹,²</td>
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A proposed model for multi-word phrases

Single words: Recognition requires retrieval of an experimental episode (Exp.). With high-frequency words, there are more other episodes to interfere with access of Exp. for old words and to promote false alarms for new words.

Phrases are composed of words and are also represented in episodic memory. The words and the phrases contribute to recognition judgments.

The role of word frequency – Experiments 1 and 2
Participants study nouns ([6]) or phrases containing those nouns. We should see the low-frequency advantage.

Experiment 1 – wizard, tree
Higher accuracy for low-frequency nouns

Experiment 2 – handsome wizard, premature tree
Smaller but clear advantage for phrases containing low-frequency nouns

A word frequency paradox in recognition memory

Low-frequency words do better (more hits and fewer false alarms) [5].

The role of phrase frequency – Experiment 3
Adjective-noun pairs with varying phrase frequency (e.g. alcoholic beverage, psychic nephew, undue hardship).

The bias to say "yes" to high-frequency phrases demonstrates an influence of familiarity on recognition judgments. That the relevant familiarity is phrasal is evidenced when multi-word sequences are stored and accumulate frequency.

Discussion

Memories store meaning, and a phrase’s meaning is mostly the sum of the words within it. Each phrase accesses memories associated with each word and the whole phrase but there are many more memories for the individual words, overwhelming any phrase frequency differences. That is why the frequency of the noun within a phrase matters just like it does for single words.

The bias to say "yes" to high-frequency phrases demonstrates an influence of familiarity on recognition judgments. That the relevant familiarity is phrasal is evidenced when multi-word sequences are stored and accumulate frequency.

References