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syntactic "islands": Why is a better?

a What did J think that M bought?

b factive: What did J know that M bought? c manner: What did J whisper that M bought?

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A verb-frame frequency account of constraints on long-di... Going back to Ross (1967) and Chomsky (1973), researchers have sought to understand what conditions permit long-...

3:38 PM · Sep 27, 2021

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**Ted Gibson, Language Lab MIT** @LanguageMIT · Sep 27, 2021 ··· In four acceptability judgement experiments, we found that verb-frame frequency offers the best explanation, as compared to syntax, semantics and discourse-based proposals

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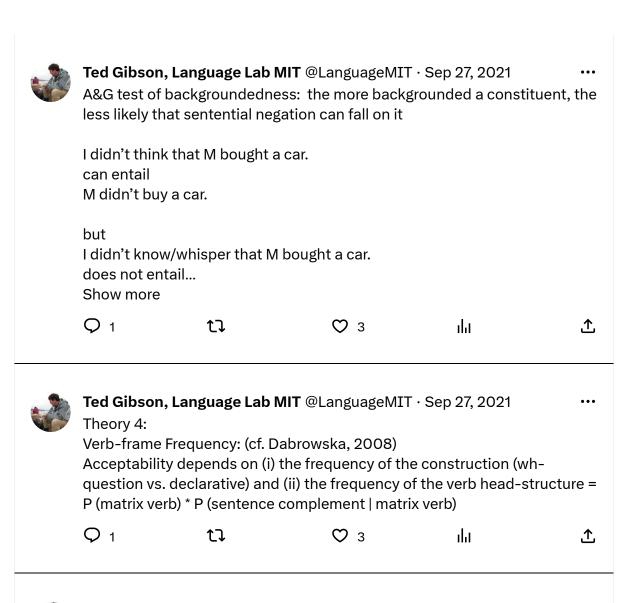
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<b>Ted Gibson, Language Lab MIT</b> @LanguageMIT · Sep 27, 2021 Theory 1: extra nodes in syntax (e.g. Kiparsky & Kiparsky, 1971)							
In factive and manner-of-speaking verbs, there is extra structure crossed in wh-movement, leading to ungrammaticality:							
What did J whisper [NP [S that Mary bought]] What did J know [NP [S that Mary bought]]							
Q 1	tì	♡ 3	ılıt	<b>1</b>			
<b>Ted Gibson, Language Lab MIT</b> @LanguageMIT · Sep 27, 2021 ··· Theory 2: The lower acceptability of extractions across factive verbs may be because presupposition does not allow extraction (Kiparsky & Kiparsky, 1971)							
What did J know [NP [S that Mary bought]]? What did J discover [NP [S that Mary bought]]?							
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Ted Gibson, Language Lab MIT @LanguageMIT · Sep 27, 2021 ··· Theory 3: Perhaps complements of factive and manner-of-speaking verbs are more backgrounded:							
Backgrounded Constituents are Islands (BCI):							
Backgrounded constituents may not serve as gaps in filler-gap constructions (Ambridge & Goldberg, 2008).							
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According to the verb-frame frequency hypothesis, there is nothing special about wh-extraction structures, other than being lower frequency constructions. The same patterns of acceptability are expected in declaratives as wh-questions (or other extraction structures)

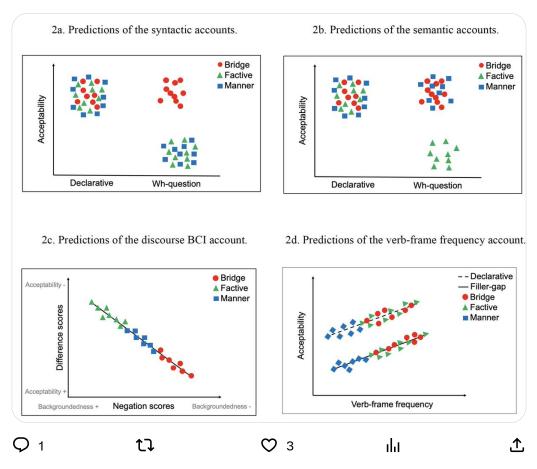
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# **Ted Gibson, Language Lab MIT** @LanguageMIT · Sep 27, 2021 Predictions of the four theories:

declarative, bridge / factive / manner: Susan thought / knew / whispered that Anthony liked something.

wh-question, bridge / factive / manner: What did Susan think / know / whisper that Anthony liked?



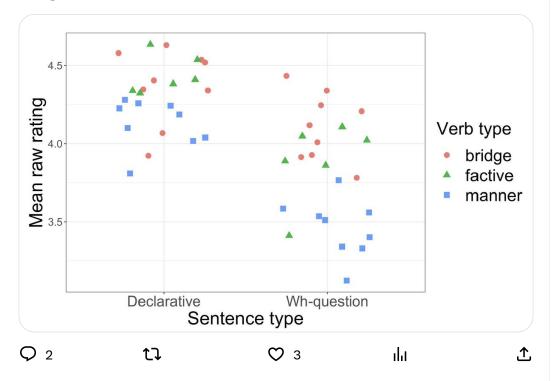


**Ted Gibson, Language Lab MIT** @LanguageMIT · Sep 27, 2021 here are the verbs in E1:

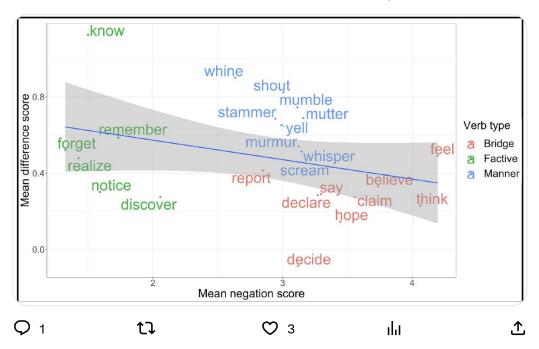
"Bridge" verbs: say, decide, think, believe, feel, hope, claim, report, declare Factive verbs: know, realize, remember, notice, discover, forget Manner-of-speaking verbs: whisper, stammer, mumble, mutter, shout, yell, scream, murmur, whine



Experiment 1 results n = 120. These results are far from what the syntactic and semantic theories predict. The predicted interactions aren't close to being there.

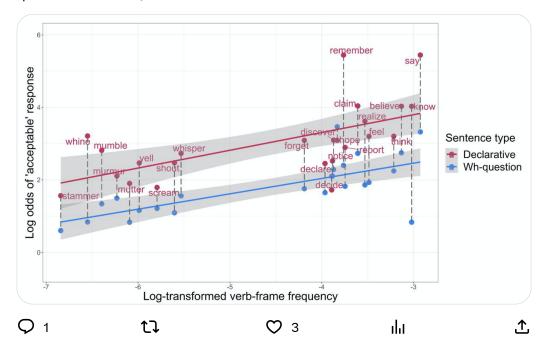


To evaluate backgrounded-ness, we ran A&G's negation test (n=60). The background account predicts a correlation between negation score and the difference in acceptability for the wh-question and declarative versions. We did not find a reliable correlation r=-0.31, p=0.13.



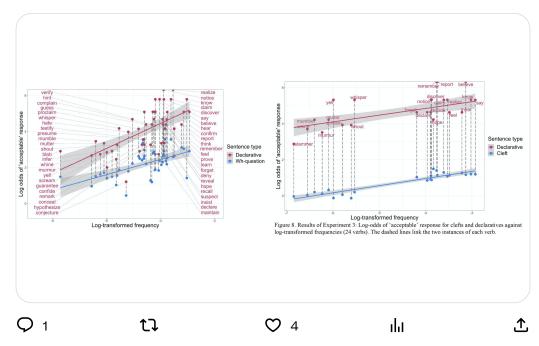


The Verb-frame Frequency Hypothesis was supported: In an ordinal regression, we found strong effects of construction (declarative rated better than wh-question  $\beta$ =-1.40, Z =-7.04, p<0.001) and verb-frequency ( $\beta$ =0.50, Z =5.89, p<0.001), with no interaction.





There are 3 further experiments, all showing strong effects of construction (declarative vs wh-question or cleft) and verb-frequency, using either a 5-point rating scale or a binary acceptability rating scale.





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Open question: why is it that the embedding verb matters so much in the

Open question: why is it that the embedding verb matters so much in the acceptability of these materials? Do all words contribute similarly?

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**Ted Gibson, Language Lab MIT** @LanguageMIT · Sep 27, 2021 ··· In addition, we found that the widely adopted approach in our field - application of linear models to Likert-scale acceptability data - can lead to

application of linear models to Likert-scale acceptability data - can lead t false positives, especially for data skewed towards one end of the scale.

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