



"I always dessert cake to diet": Elicited Imitation as an L2 task



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Introduction

- Elicited imitation tasks test second language (L2) learners' grammar knowledge:
 - L2 learners repeat a sentence containing the targeted grammatical structure.
- If the stimulus is long enough, the learner cannot hold it in working memory while repeating it. She is forced to store the information as a semantic unit, and use her own grammar when reproducing the sentence (Gass & Selinker, 2001).
- Scoring non-native spoken data can be difficult. Scoring only the target structure may ignore working memory limitations but fail to yield good data.

Method

- Participants: 31 high-intermediate English L2 students
- Heard grammatical pre-recorded English sentences
 - 6-11 words in length; 8-14 syllables per sentence
 - Target structures: (number of stimuli/structure)
 - (18) Indefinite articles "a" and null
 - (6) Modals (may, should, would)
 - (18) Subject-verb agreement 3rd person singular -s
 - (6) Passive verb structure
 - (6) Verb complement structure
- Production recorded - 8 seconds/sentence
- 6 sentences per set, 2 sets per session, in three weekly sessions = 36 different sentences per student

Scoring Method

Responses were scored with two methods

Target structure accuracy (T Score)

- 1 – Correct target structure, including on-line corrections (n = 704)
- 0 – Obligatory context – missing target and avoidance of obligatory context (n = 271)
- missing data – utterance did not include target structure (n = 128)

Overall Sentence Accuracy (S Score)

- 1 – Correct target structure, including on-line corrections (n = 419)
- .75 – Changed but grammatical (n = 124)
- .50 – ½ of sentence is present and grammatical (n = 27)
- .25 – Sentence produced in full with 1+ error (n = 581)
- 0 – less than ½ a correct grammatical sentence (n = 41)
- Missing data – participant did not attempt (n = 11)

How do the results from the two analyses supplement each other?

References

Gass, S.M. & Selinker, L. (2001). *Second Language Acquisition: An introductory course*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc. Publishers.

Results

Comparison of Scores per target structure

Means, Standard Deviations, and Correlation per sentence stimuli

Structure	T Score (SD)	S Score (SD)	Correlation
Indefinite article ("a")	.757 (.408)	.637 (.374)	.808
Null article	.677 (.469)	.566 (.361)	.663
Modals	.854 (.354)	.636 (.350)	.522
3 rd Person -s	.707 (.456)	.594 (.373)	.503
Passive	.522 (.499)	.482 (.337)	.125
Verb complement	.775 (.419)	.636 (.361)	.245

- Correlation between T score and S score:
 - With some structures, the two scores seem to be measuring different components of the task
 - Is Sentence difficulty affected by target structure difficulty?

Comparison of scores within one target structure

Scores of sentences within 3rd person -s target structure

Verb	T Score (SD)	S Score (SD)	Correlation
seems	.901 (.300)	.759 (.333)	.380
means	.690 (.466)	.494 (.382)	.598
lives	.507 (.503)	.529 (.348)	.802

- T score seems to depend on vocabulary

Comparison of specific sentences

Stimuli	T Score (SD)	S Score (SD)	Correlation
I need a computer for my school work	1.00 (0.00)	.883 (.265)	--
I will buy my son a toy for his birthday	.917 (.289)	.467 (.352)	.185
on long bus rides I bring a book to read	.286 (.488)	.250 (.177)	-.189
our friends brought _ wine and glasses to the party	.900 (.316)	.500 (.400)	.607
I go to the library because I like _ books	.750 (.452)	.703 (.332)	.683
I would travel more if I had time	.895 (.315)	.444 (.279)	.165
That look on her face means she's angry	.900 (.316)	.482 (.409)	.333
I am lonely because my sister lives far away	.500 (.522)	.571 (.346)	.930
I really don't know what this word means	.417 (.515)	.577 (.373)	.929

- T score seems to depend on sentence location
- For some sentences, the T score and S score correlate; for others, the S-score may be measuring another component of these sentences

Conclusions

- If the target structure or sentence is difficult, the S score might reflect the impact of the increased processing load, which the T score might miss.
- A sentence with a high standard deviation in S score may indicate that the stimulus captures individual differences in proficiency.
- Characteristics of the carrier sentences seem to affect target structure scores, including:
 - Vocabulary of the target structure (seems > means > lives)
 - Target structure location (beginning > end; main clause > embedded clause)
 - Structure of the sentence (Subject-Verb-Other > Other-Sub-Verb)
- Pilot testing may benefit from both scoring methods to select appropriate stimuli (i.e. high S scores if you want to code target structure)
- Further analysis include "How well does each score predict accuracy on free production tasks?"