

**Lexical Simplification and Elaboration:
An Experiment in Sentence Comprehension and Incidental Vocabulary Acquisition**

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Abstract:

Use of simplification and elaboration to enhance input comprehension has attracted attention of SLA researchers. It is commonly believed that simplifying input will enhance L2 comprehension; however, several researchers have argued against its use because (a) simplifying input does not necessarily aid comprehension (e.g., Blau, 1982), and (b) it removes from the input linguistic items that L2 learners need to learn (e.g., Yano, Long, & Ross, 1994). Input elaboration has been proposed as an alternative to simplification under the belief that it aids comprehension but does not hinder language learning.

The present study reports on an experiment in the effects of simplification and elaboration on L2 comprehension and SLA with a focus on the lexical domain of English. Forty Japanese learners of English participated in the study, and the results suggest that (a) both lexical simplification and elaboration improve learner comprehension at the sentence level; (b) lexical elaboration triggers incidental vocabulary acquisition while simplification does not; and (c) learners of higher proficiency benefit more from lexical elaboration in terms of the acquisition of word meanings.

Background:

- ◆ Types of modification
 - Simplification: controlling the text targeted to L2 learners by removing unfamiliar linguistic items (e.g., unknown grammatical constructions and lexis) in order to enhance comprehension.
 - Elaboration: adding redundant information to the text through the use of repetition, paraphrases, and appositives (Long, 1996, p. 422).

- (1) Baseline version: Everybody knows that Ken is *diligent* and kind to others.
 (2) Simplified version: Everybody knows that Ken is hardworking and kind to others.
 (3) Elaborated version: Everybody knows that Ken is *diligent*, or hardworking, and kind to others.
(from Urano, 1998)

- ◆ Simplification, elaboration, and second language comprehension

Table 1. Summary of the Studies on Simplification, Elaboration, and L2 Comprehension

Study					
Brown (1985)	elaborated	>ns	simplified	>*	baseline
	elaborated		>*		baseline
Tsang (1987)	simplified	>ns	elaborated	>*	baseline
	simplified		>*		baseline
Yano et al. (1994)	simplified	>ns	elaborated	>ns	baseline
	simplified		>*		baseline
(inference items)	elaborated	>*	simplified	>*	baseline
	elaborated		>*		baseline
Chung (1995)	simplified	>ns	elaborated	>ns	baseline
	simplified		>*		baseline

Note: >* = statistically significant difference, >ns = non-significant difference

- ◆ Limitations of previous studies and solutions in the present study
 - Measures of L2 comprehension used may not have directly assessed *comprehension*.
 - Mean reading time (RT) was used as an additional measure of comprehension.
 - Frequency of modification was not controlled.
 - Lexical modification was selected as the target of the study.
 - Few studies have explored effects of modification on language *acquisition*.
 - Effects of simplification and elaboration on both L2 comprehension and acquisition were tested.

- ◆ Research questions
 1. To what degree do lexical simplification, elaboration, or both, facilitate L2 sentence comprehension?
 2. To what degree do lexical simplification, elaboration, or both influence incidental vocabulary acquisition, either positively or negatively?

Method:

- ◆ Participants

Forty native speakers of Japanese, 33 female and seven male, enrolled in intensive English language programs in Hawai'i.

- ◆ Materials
 - Test sentences
 - (4) Baseline version: Becky could not eat the cake because it was too *vight* for her.
 - (5) Simplified version: Becky could not eat the cake because it was too sweet for her.
 - (6) Elaborated version: Becky could not eat the cake because it was too *vight*, or sweet, for her.
 - (7) Distractor version: Becky could not eat the cake because it was too *vight*, or malash, for her.

		high-frequency synonym	
		+	-
sentence length	+ (long)	elaborated	distractor
	- (short)	simplified	baseline

Figure 1. Two Independent Variables

- Vocabulary tests
 - Form-recognition test
 - Meaning-recognition test

- ◆ Procedures
 1. Participants were tested on the individual basis using PsyScope 1.2.4. They read test sentences on a computer screen and answered comprehension questions. Their answers as well as reading times were recorded.
 2. A surprise form-recognition test on the target words was placed after the PsyScope session.
 3. A meaning-recognition test was placed after the form-recognition test.

◆ Design and analyses

- On sentence-comprehension measures (2 x 2 two-way repeated-measures MANOVA)
 - IVs: (a) sentence length (with two levels; repeated-measures)
 - (b) modification in the form of providing high-frequency synonym (with two levels; repeated-measures)
 - DVs: (a) mean reading time
 - (b) scores of the comprehension questions
- On vocabulary acquisition measures (one-way repeated-measures MANOVA)
 - IV: lexical modification (with three levels; repeated-measures)
 - DVs: (a) form-recognition test
 - (b) meaning-recognition test

Results:

◆ Sentence comprehension measures

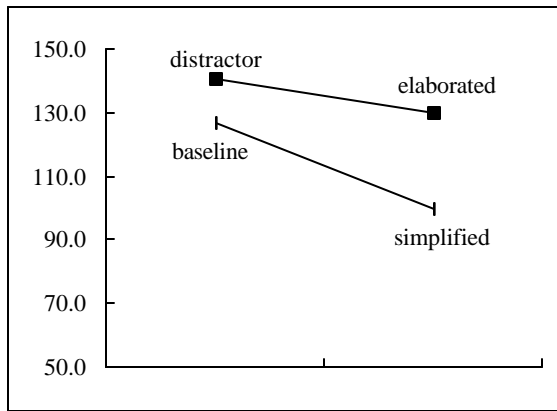


Figure 2. Mean Reading Times

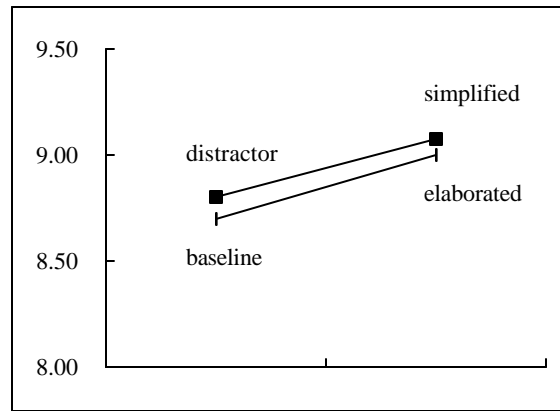


Figure 3. Mean Scores of Comprehension Questions

Main Effects:

- Sentence Length... *
- Lexical Modification... *

Interaction... *

Main Effects:

- Sentence Length... ns
- Lexical Modification... ns (but $p = .045$)

Interaction... ns

◆ Vocabulary acquisition measures

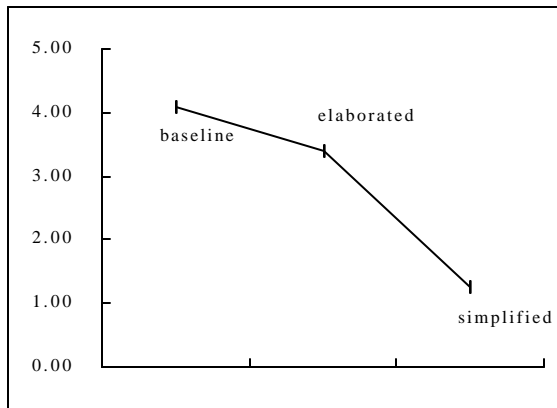


Figure 4. Mean Scores of Form-recognition Test

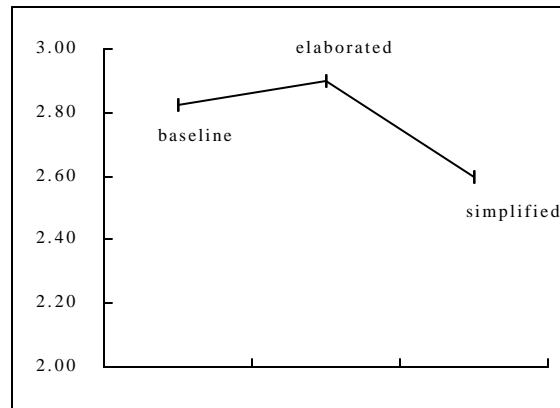


Figure 5. Mean Scores of Meaning-recognition Test

Lexical Modification... *

baseline = elaborated >* simplified

Lexical Modification... ns

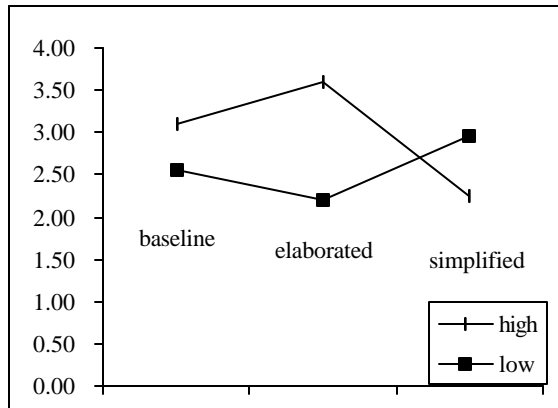


Figure 6. Mean Scores of Meaning-recognition Test with Two Proficiency Levels

Main Effects:

Proficiency... ns

Modification... ns

Interaction... *

Discussion:

- ◆ Lexical simplification, elaboration, and sentence comprehension
 - Positive effects of lexical simplification and elaboration on L2 comprehension at the sentential level (Figures 2 & 3).
- ◆ Lexical simplification, elaboration, and incidental vocabulary acquisition
 - Presentation of target lexical items itself can trigger the first step of acquisition, i.e., recognition of form (Figure 4).
 - Support for elaboration in terms of L2 acquisition (Long, 1983; 1996; Yano et al., 1994)
 - The high-proficiency group benefited more from elaboration than the low-proficiency group with regard to the acquisition of word meanings (Figure 6).

Conclusion:

- ◆ Summary of the findings
 - Both lexical simplification and elaboration facilitate L2 comprehension at the sentential level.
 - Elaborating target lexical items can trigger acquisition of those elaborated words, whereas lexical simplification hinders acquisition of the target words.
 - One occurrence of each target word with lexical elaboration may not be sufficient to acquire its meaning, although more advanced learners may be able to learn some of the words with only one occurrences.
- ◆ Implications
- ◆ Limitations of the study
 - The experimental conditions were different from natural L2 reading/learning environments.
 - Specific participant population limits the generalizability of the findings.
 - Some of the measures employed were found to be less reliable.
- ◆ Suggestions for future studies

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