Morphological learning in an online language app: Evidence from Lingvist users

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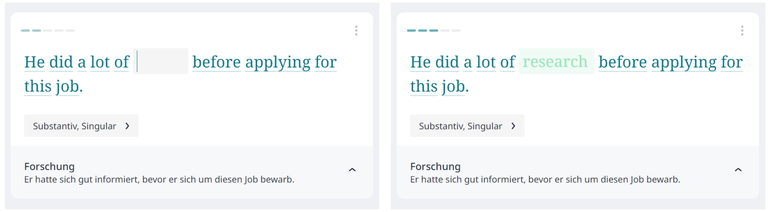
Research Questions

1. Do users in an online learning app show evidence of morphological learning?
2. Do exposures to sublexical elements in other target vocabulary and words in context sentences support learning?

How does the app work?

Material: Cloze sentences with source language gloss
Task: Translate and correctly type target vocabulary



Methods

Using a large data set of Lingvist app users learning English via German/Japanese, we investigated the effect of exposure to type and token counts of sublexical elements encountered in other target vocabulary and context sentences. We looked at learning success across users' first five attempts.

We investigated the effects of exposures to word-final three letter combinations in simplex words (NGRAM3; e.g., st**eak**, w**eak**), orthographically and phonological consistent letter combinations in the final rime of simplex words (RIME; e.g., mar**ine**, rout**ine**) and suffixes in morphologically complex words (SUFFIX; e.g., joy**ful**; color**ful**).

Data

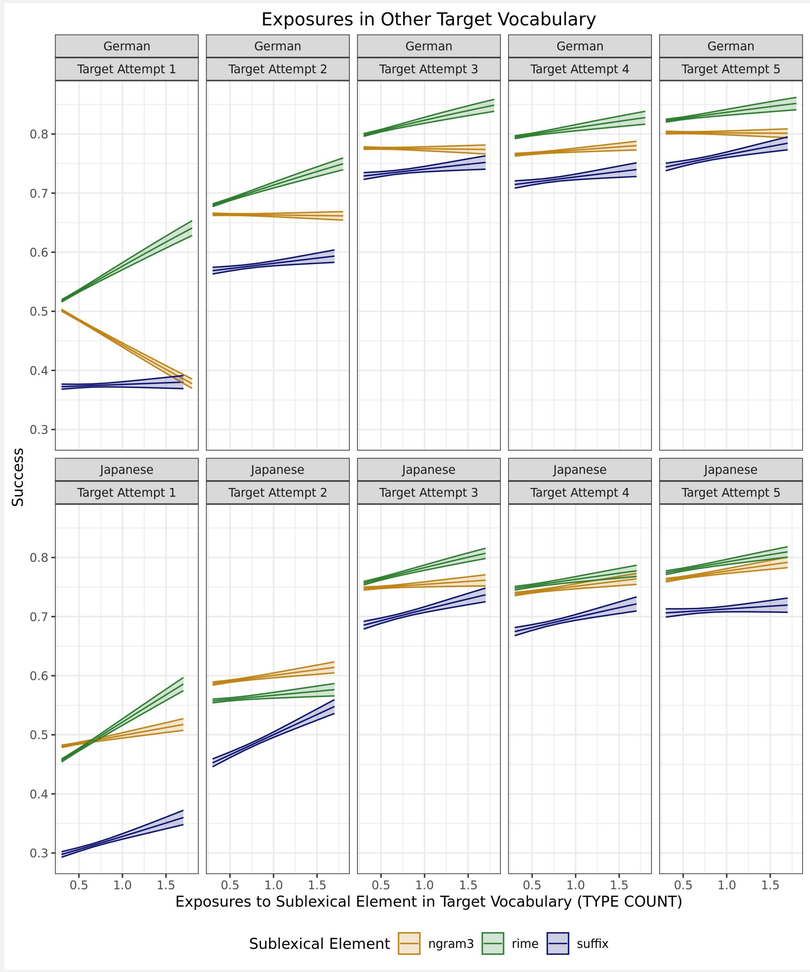
- Single simplex or complex words
- Sublexical element type counts were >1 and <100
- Users total target attempts were >100

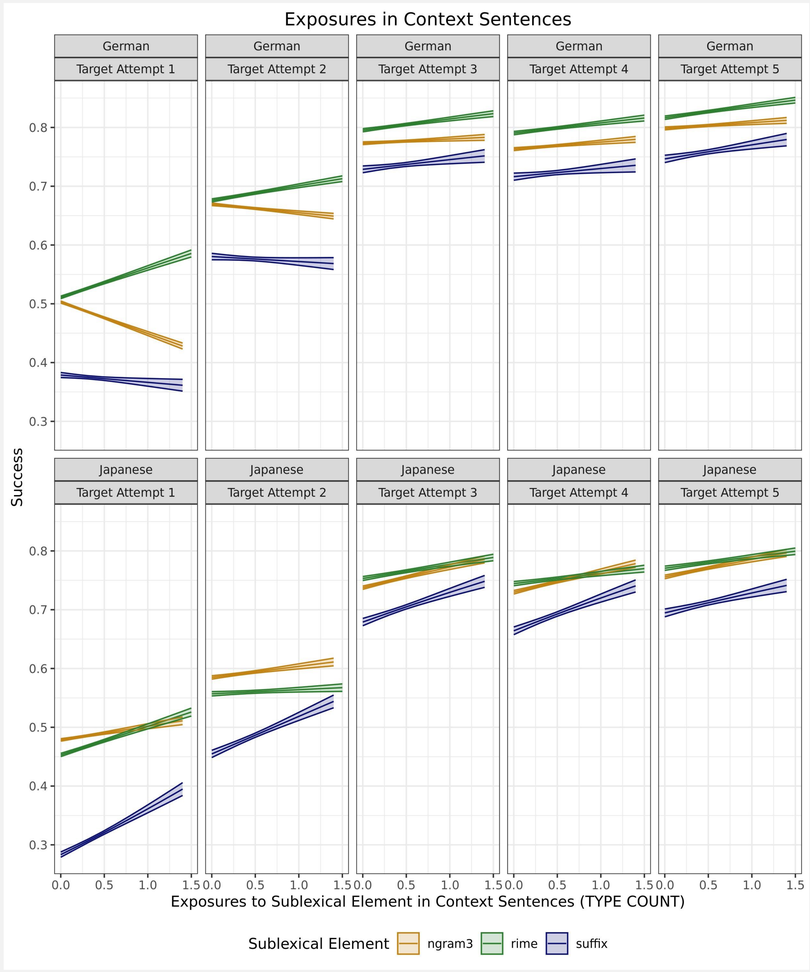
	Users	Target Attempts		
		Ngram3	Rime	Suffix
German	7,115	4,973,713	2,665,353	1,222,358
Japanese	4,834	3,603,028	2,378,272	1,273,392

Results

- TOKEN vs TYPE: There was an effect of exposures by type count but not token count
- TARGET vs CONTEXT: Exposures to sublexical elements in other target vocabulary and in sentence contexts supported word learning across users' first five target attempts
- NGRAM3 vs RIME vs SUFFIX: Exposure to other words containing these elements supported word learning.

The larger effects of RIME and SUFFIX exposures highlighted the importance of phonological consistency. Similar effects of RIME and SUFFIX provide no support for morphological learning.





Conclusion

Word learning is more effective when learners encounter orthographically and phonologically consistent sublexical elements in a variety of other lexical contexts.