

A quantitative investigation of alignment processes in English as a lingua franca (ELF) interactions

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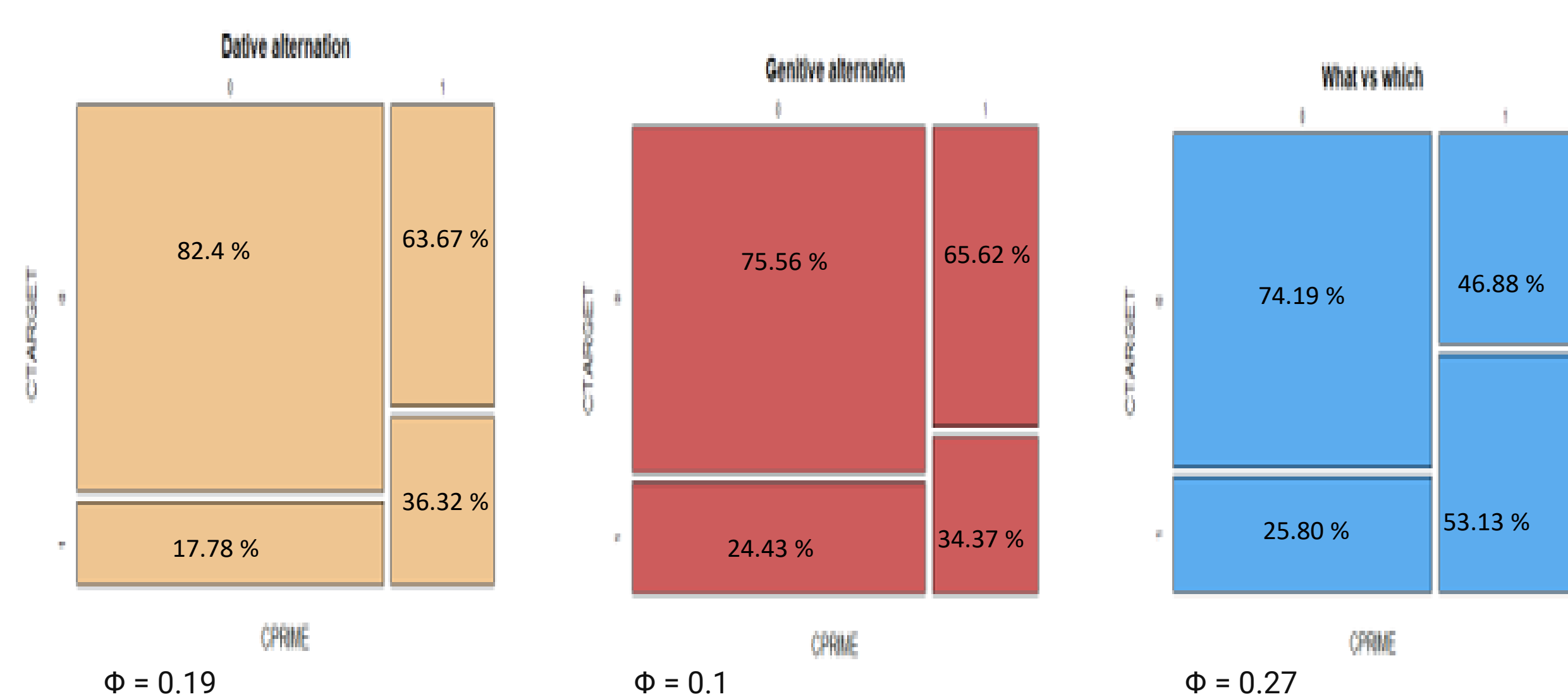
Motivation & research questions

Alignment in second language has mostly been explored in experimental or otherwise constrained settings (Jackson 2018). The present study complements the findings from such studies by investigating alignment in a corpus of naturally occurring ELF interactions, and it addresses the following research questions:

1. Does the occurrence of one alternative increase the likelihood of occurrence of the same alternative?
2. Which other variables influence this correlation:
 - a) lemma similarity (cf. lexical boost, Pickering & Branigan 1998; Scheepers, Raffray & Myachykov 2017)
 - b) form similarity
 - c) speaker
 - d) textual distance
3. Do speakers in ELF settings increasingly use more similar lexical items and syntactic structures as the conversation unfolds?

Preliminary findings: correlations

0: double object dative; OF-genitive, *what*
1: prepositional dative, S-genitive, *which*



Variables that significantly influence the correlation

Alternation	Independent variables	Pr(> z)
Dative alternation	(same) VERB	2.89e-14 ***
	(same) SPEAKER	0.01838 *
Genitive alternation	(same) POSSESSUM LEMMA	0.000382 ***
<i>what vs which</i>	(same) head of NP	0.005956 **
	(same) SPEAKER	0.000187 ***

Data & method

- Dataset: Vienna-Oxford International Corpus of English (VOICE)
- 1 million words, ca. 50 different L1 backgrounds
- Speakers seen as users in their own right (Seidlhofer 2011)

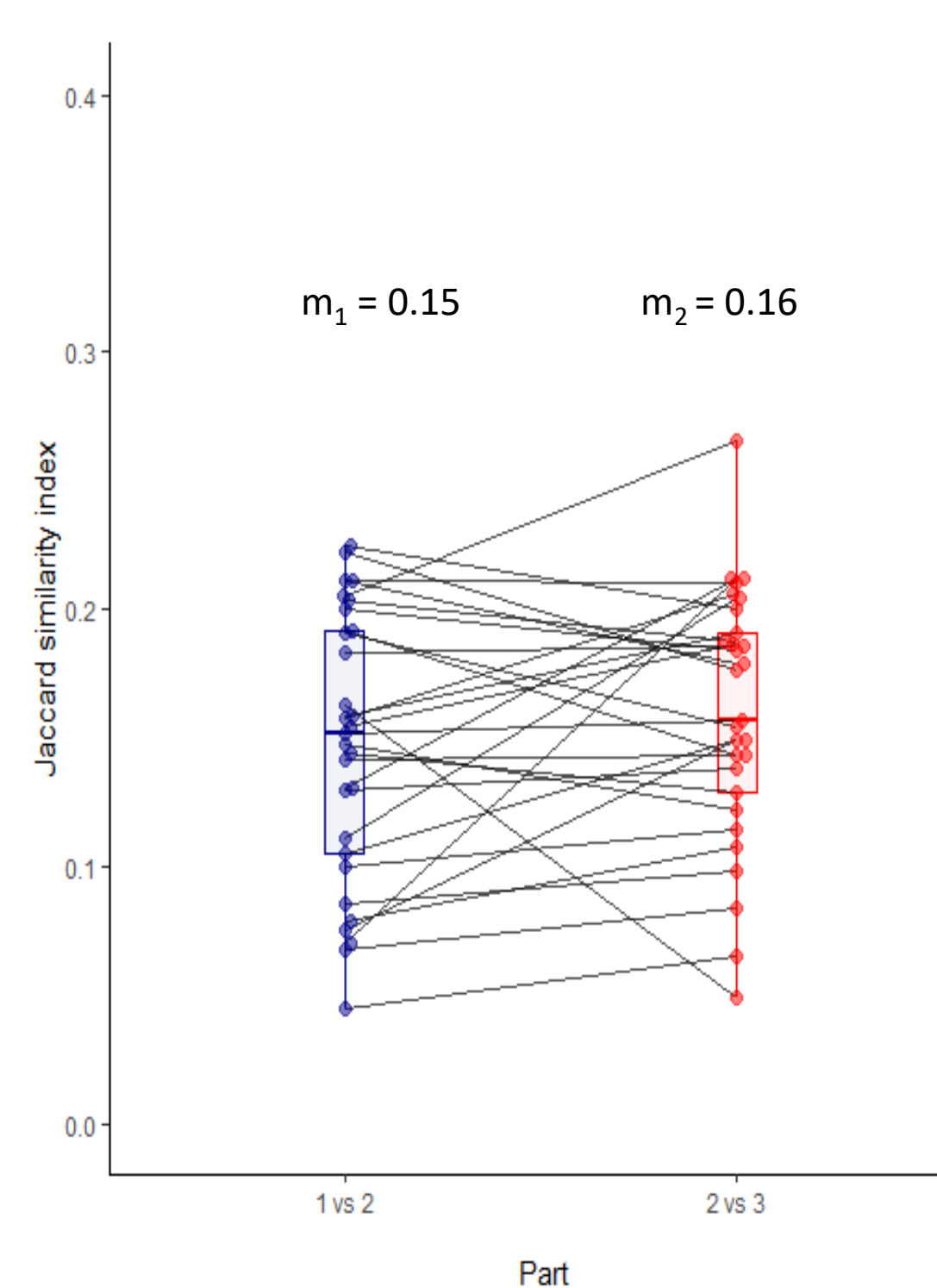
Method:

- Syntactic and lexical alignment conceptualized as a correlation between two alternatives (e.g. dative alternation or *what vs which* respectively); GLM analysis
- Similarity measures: Jaccard similarity index & Pearson's correlation coefficient; ngram - similarity

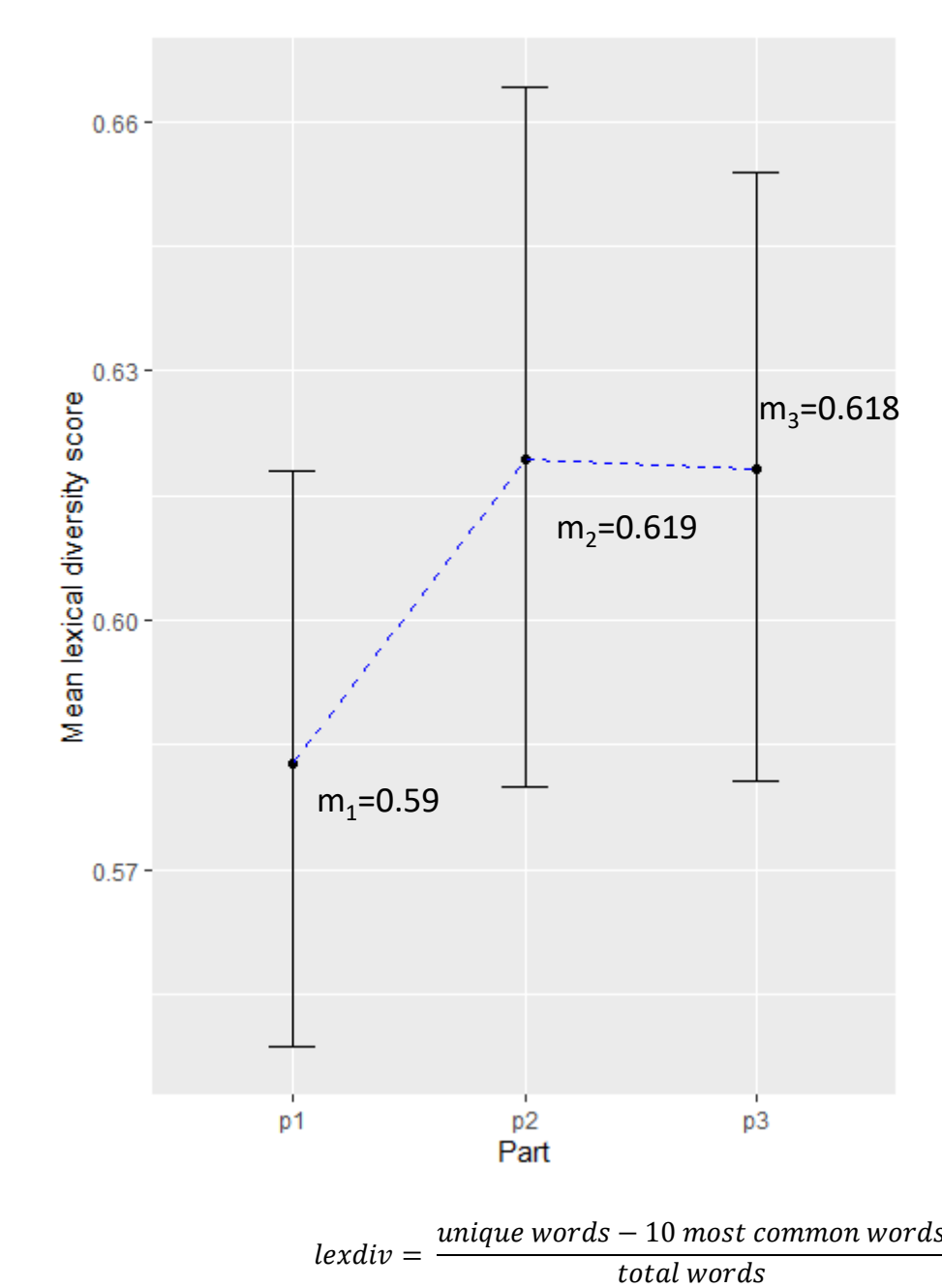
Lexical alignment

- H1:** The amount of shared vocabulary increases during the conversation.
- H2:** As speakers negotiate and develop shared lexical repertoires, lexical diversity decreases.

Changes in Jaccard similarity index (N=29)



Changes in lexical diversity (N=29)



One-way ANOVA					
group	df	Sum of squares	Mean squares	F value	Pr(>F)
2	2	0.0251	0.01257	1.122	0.33
Residuals	84	0.9409	0.01120		

Conclusion

- ✓ Alignment effects seem to be weaker than in comparable L1 studies.
- ✓ Still, it is possible to observe correlations not only between syntactic, but also between lexical alternations.
- ✓ Lexical items used in the relevant phrase increase the probability of alignment.
- ✓ No significant changes in lexical similarity or lexical diversity.

References:

- Jackson, Carrie N. 2018. "Second language structural priming: A critical review and directions for future research." *Second Language Research* 34 (4), 539–552.
- Pickering, Martin J.; Branigan, Holly P. 1998. "The representation of verbs: Evidence from syntactic priming in language production". *Journal of Memory and Language* 39, 633–651.
- Scheepers, Cristoph; Raffray, Claudine N.; Myachykov, Andriy. 2017. "The lexical boost effect is not diagnostic of lexically-specific syntactic representations". *Journal of Memory and Language* 95, 102–115.
- Seidlhofer, Barbara. 2011. *Understanding English as a lingua franca*. Oxford: Oxford University Press.