

Multilingual Development of German Grammatical Gender

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Objectives

This project examines the longer term development of the grammatical gender system of L3 German, and the dynamic role of cross-linguistic influence (CLI) as the L3 develops.

- How does CLI of grammatical gender knowledge change as the L3 develops?
- How do factors such as order of acquisition, typological similarity of known languages, and proficiency impact CLI of grammatical gender, and how does this relationship change throughout L3 development?

Introduction

Research in L2 acquisition of grammatical gender has shown an influence of a gendered L1 on L2 gender acquisition not only at the onset of L2 learning but throughout the L2 developmental process (i.e. White et al., 2004; Sabourin et al., 2006). While L3 research on grammatical gender is currently in its infancy, studies to date focus exclusively on CLI of gender in early and low-proficiency L3 learners (i.e. Brown, 2020; González Alonso et al., 2020; Długosz, 2022; Ecke, 2022).

This project serves as a preliminary investigation of L3/*L_n* grammatical gender development and maintenance throughout later stages of L3 development. Through a larger-scale survey-style grammaticality judgement task, which included a wide variety of trilingual individuals, this project aims to identify key factors that may aid or inhibit CLI of grammatical gender in a longer-term trilingual context.

Response ~ Language Background * German Proficiency + German AoA + Linguistics Knowledge + Number of Gendered Languages Known + (1 | Participant) + (1 | Question)

Variable	Estimate	Std. Error	z value
Intercept	-3.70	0.92	-4.00***
Language Background			
Multilingual	3.17	0.99	3.210**
German Proficiency	0.09	0.02	6.058***
Linguistics Knowledge			
Yes	-0.41	0.18	-2.285*
German AoA	-0.02	0.01	-1.351
Number of Gendered Languages Known	0.39	0.15	2.523*
Language Background-Multilingual: German Proficiency	-0.05	0.02	-3.204**

R² = 0.134

Table 1: Mixed effects logistic regression results. All models accounted for the random effects of participant and question.

Methods

Participants completed an online survey-style experiment via Qualtrics (2022), consisting of four components:

- German Grammaticality Judgement Task (GJT)
- German Gender Assignment Task (GAT)
- LexTALE Vocabulary Test (Lemhöfer & Broersma, 2012)
- Multilingual LEAP-Q (Marian et al., 2007)

The key questions in the GJT involved a grammatical gender error such as:

- (1) **Der Tür** ist weiß
DET_M door_F is white

Important Result

Results show a significant interaction between **German proficiency and language background**, where multilingual learners outperform bilinguals at lower levels of German proficiency, but not at higher proficiency levels. Additionally **knowledge of linguistics** was found to inhibit success in the task.

Analysis

Participant responses to each sentence in the GJT were given a binary score as to whether or not they correctly identified a gender agreement error. In order to control for gender assignment errors, scoring for each participant was done with respect to the gender categories that the individual assigned each noun in the GAT. Only cases that involved an error in gender concord on the definite article were considered in this study, though data on participants' identification of grammatically correct sentences with correct gender agreement has also been collected and is currently under analysis.

Participants

Data from a total of 89 non-native German speakers was included in the study (mean age = 28.11 years, age range = 18-76 years, 26 male, 53 female, 9 non-binary, 1 no response). All participants began learning German after the age of 5, and after they had begun acquiring English. 27 of these participants knew only English and German, and were therefore considered bilingual. The remaining 62 also knew at least one Romance language and were considered multilingual.

Conclusion

This preliminary study provides a first look at the complex long term development of L3 grammatical gender. Key results show that knowledge of additional gendered languages significantly benefits grammatical gender acquisition for learners with a German proficiency of B1 or below, a finding that matches that of Brown (2020). The question that remains is whether these findings are the result of CLI or transfer from a previously acquired grammatical gender system, or some form of learning advantage developed as a result of language learning experience. This author intends to investigate this question further through a longitudinal analysis of early German acquisition. More surprising are the results related to participants' knowledge of linguistics inhibiting success in the task. Preliminary additional research suggests that these learners are generally more accepting of grammaticality in general, and that these findings do not relate to gender specifically. Additional research on this finding may have implications for research on diversity in education.

References

A full citation list can be found at meganmbrown.com or by following the link from the QR code below:



Results

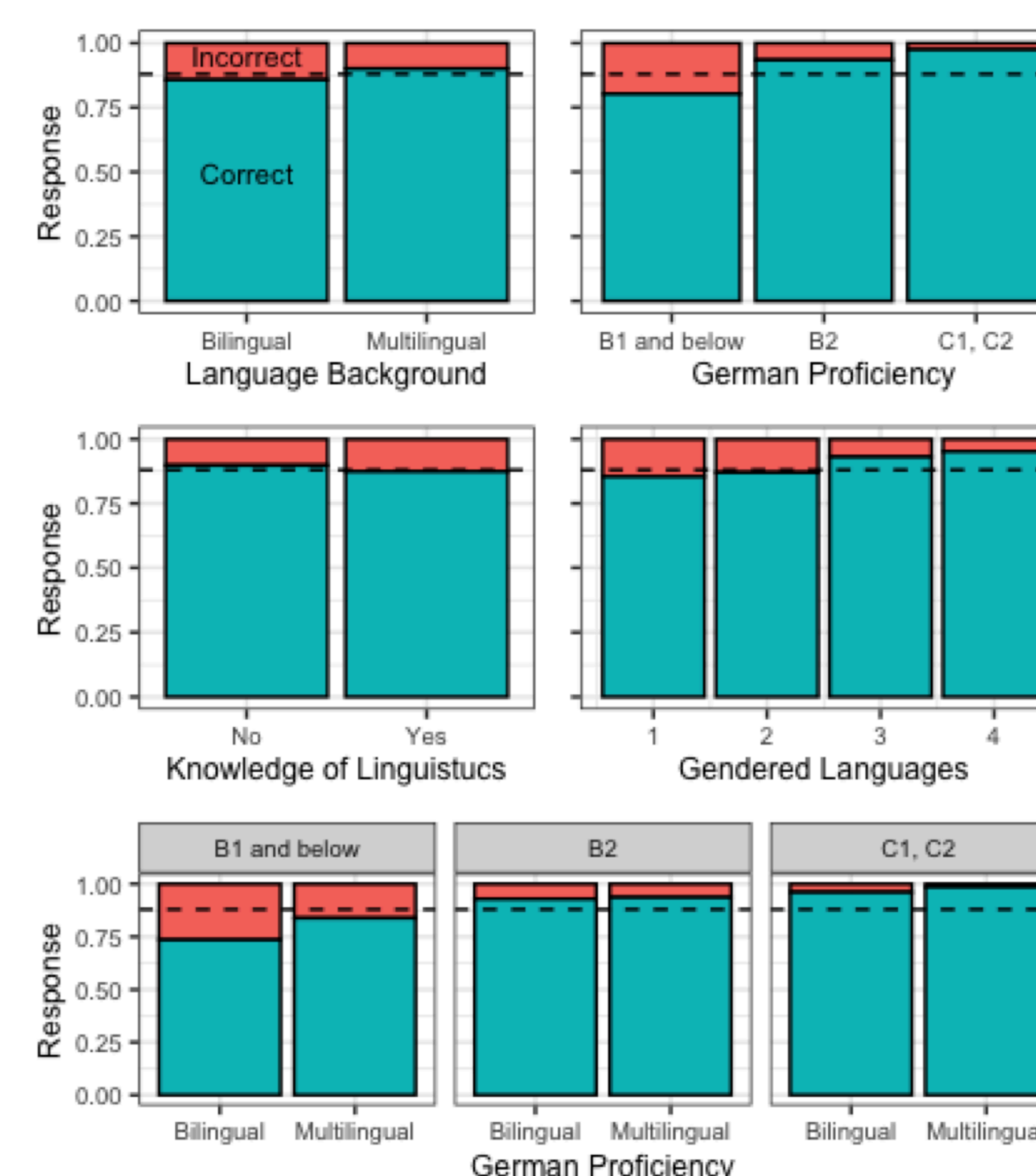


Figure 1: Factors found to significantly impact gender error identification.

A series of mixed effects logistic regressions were run to identify the key predictors of error identification success. One such model is provided in Table 1. All models controlled for the random effects of participant and question.

Models consistently showed significant effects of (a) language background (bilingual vs. multilingual), (b) German proficiency, (c) number of gendered languages known, and (d) linguistics knowledge, as shown in Figure 1. Additionally, a significant negative interaction was found between language background and German proficiency, suggesting that at lower levels of proficiency, multilinguals are more successful at identifying German gender errors.

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