

The Vowel Quality of Non-Lexical Hesitation Particles in German and English L1 and L2 Speech

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Introduction

Hesitation particles such as *uh* and *um* in English occur in numerous languages in similar forms [1]. The vowel quality for English hesitation vowels is usually described as being close to the central vowel Schwa [2] or the unrounded back vowel [ʌ] [3,4]. The German hesitation particles are often orthographically transcribed as *äh* and *ähm* which would suggest the half-open unrounded front vowel [ɛ] [5]. Künzel, however, suggests that there is great variation concerning the quality of hesitation vowels [6]. The aim of this project is to compare the (hesitation) vowel qualities of English and German speakers with the vowel inventory of the respective languages. Furthermore, the production data of L1 and L2 speakers will be compared.

Methods

Spontaneous speech of 24 subjects has been recorded along with a word list of German and English words (containing the vowel inventory of both languages). Formants (F1-F3) of the hesitation and the lexical vowels were measured using Praat [7].

Subjects

- 12 native German speakers, 12 native English speakers (both groups gender balanced)
- Age: 18-70 years (mean = 37 years)
- L2 of subjects either English or German - proficiency level groups Advanced (C1+) and Low-intermediate (~ B1)

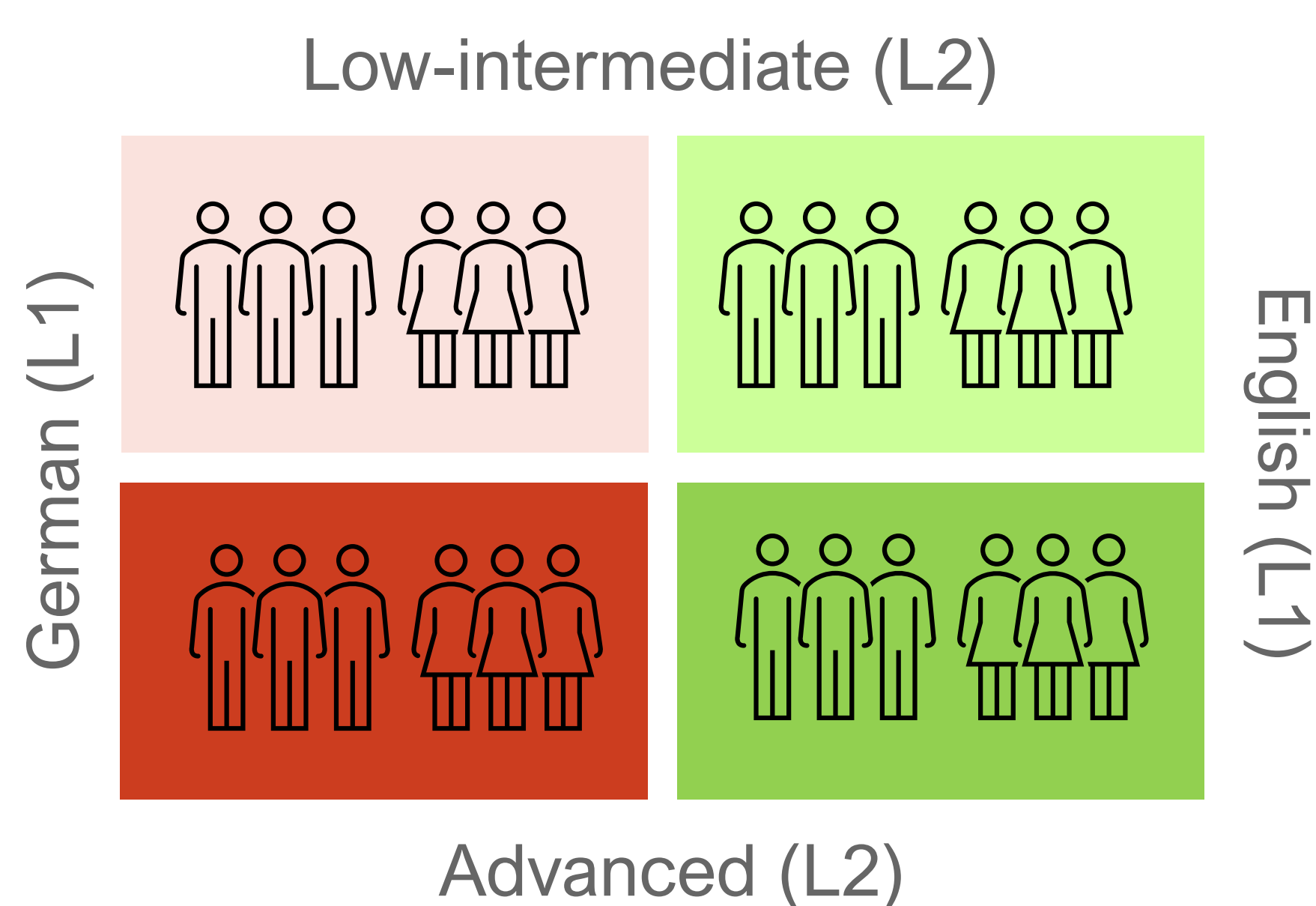


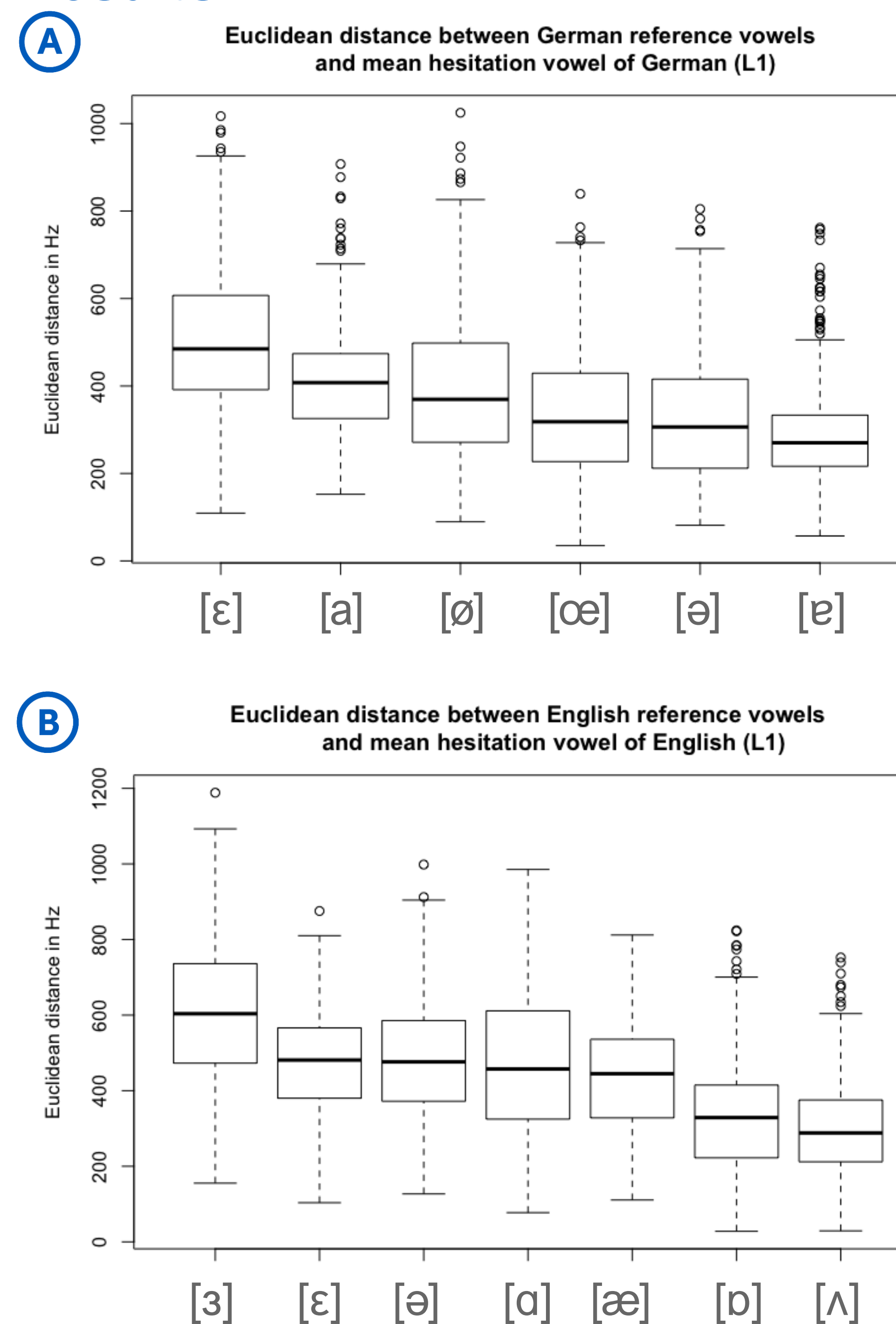
Fig. 1: Schematic representation of subject groups

Euclidean Distance

The Euclidean distance is the distance between two points in an n-dimensional space, here the distance between two vowels (hesitation vowel and lexical vowel) according to the three formant values (F1 - F3). Three analyses have been made:

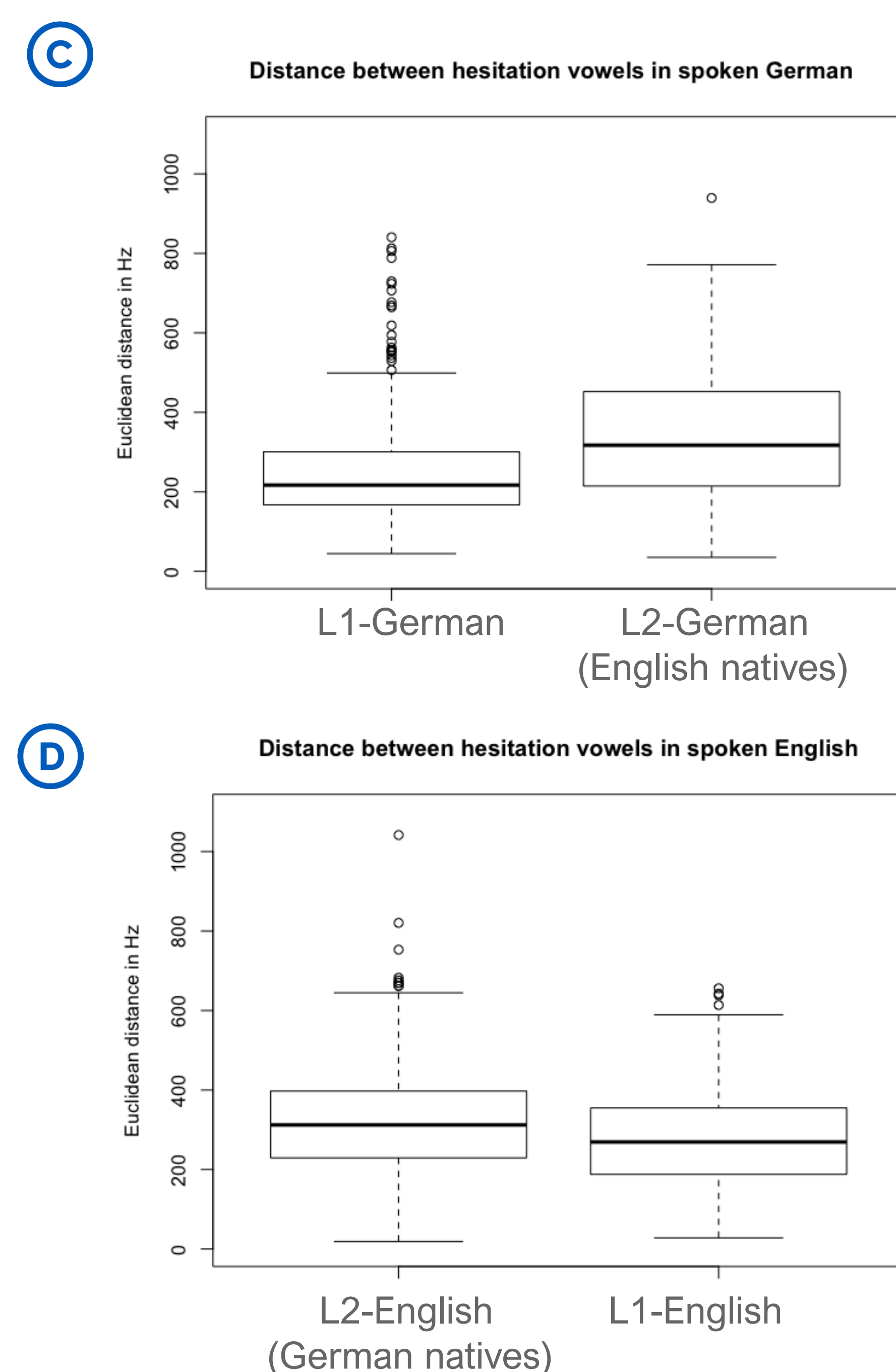
1. A comparison of hesitation and lexical vowels to determine the vowel quality of the hesitation vowels. (A-B)
2. A comparison of the hesitation vowels of L1 and L2 speakers in both languages. (C-D)
3. A comparison of the hesitation vowels of low-intermediate and advanced L2 learners. (E-F)

Results



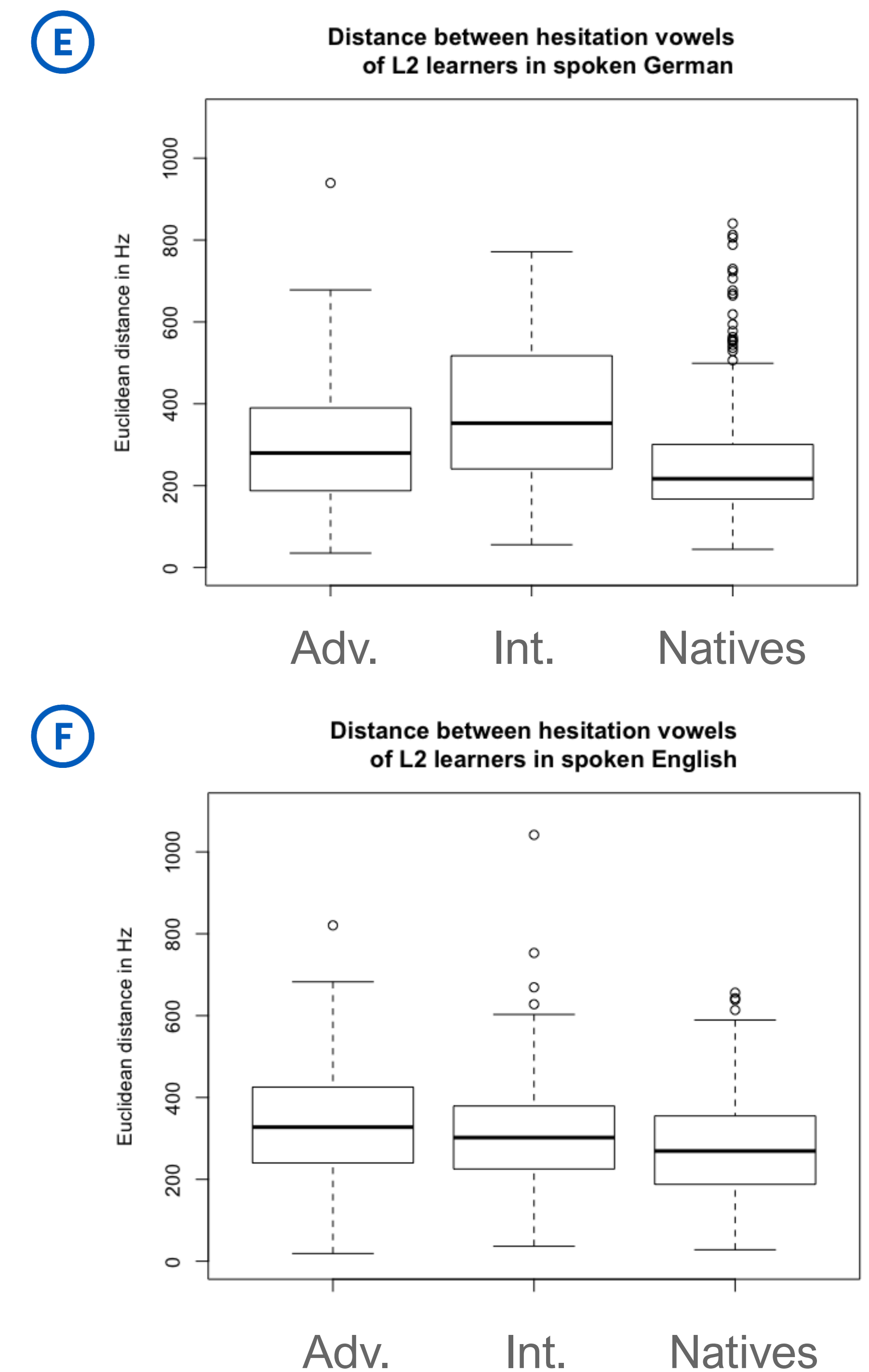
Hesitation vowels vs lexical vowels

Figure A shows that the central vowel [e] is closest in quality to the mean German hesitation vowel. The English (mean) hesitation vowel is best represented by the back vowel [ʌ] as figure B shows.



L1 vs L2 hesitation vowels

These figures show that the native English speakers produce a different vowel quality in their hesitations when speaking German (than the German natives) while the Germans speaking English approach the vowel quality of the native English speakers.



Proficiency levels

In spoken German (fig. E) the quality of the hesitation vowel is closer for the advanced learners than the intermediate learners. In spoken English, however, the intermediate learners approach the English hesitation vowel better than the advanced learners. The German advanced learners of English seem to hyperarticulate the English hesitation vowel. This tendency needs further investigation.

Conclusion

This work has shown that the hesitation vowel of German and English native speakers can be best represented by two variants of their vowel inventory: for German the **central vowel [e]** and for English the **back vowel [ʌ]**.

Furthermore, L2-learners seem to be able to **adapt the foreign hesitation vowel** once they acquired a certain proficiency level. However, a tendency of advanced learners to hyperarticulate the hesitation vowel could be observed. Further research is needed to shed light on this phenomenon.

References

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