

Native speech rhythm and dimensions of foreign language perception

The case of L2 German by Spanish and Portuguese speakers

Sarah Waldmann | Freie Universität Berlin | s.waldmann@fu-berlin.de

1. Introduction

Learners' native language (L1) rhythm influences second language (L2) **temporal and syllabic patterns** (e. g. White & Mattys 2007, Li & Post 2014).

This study explores **its impact on the perception by L1 listeners**, investigating:

- how **L2 German** by learners with typologically different **L1s**, **Spanish** and **European Portuguese** (EP), are perceived by L1 German listeners in terms of **intelligibility, comprehensibility**, and **accentedness** (cf. Derwing & Munro 2015)
- if shared rhythm features (vowel reduction, complex syllables) provide an **advantage for EP learners**.

Rhythm – state of the art:

Phonological properties

(e. g. Dauer 1983 & 1987)

Syllable structure
Vowel reduction

Timing phenomena

(Prieto et al. 2012, White et al. 2012, White 2014)

Durational marking of
prosodic heads & edges

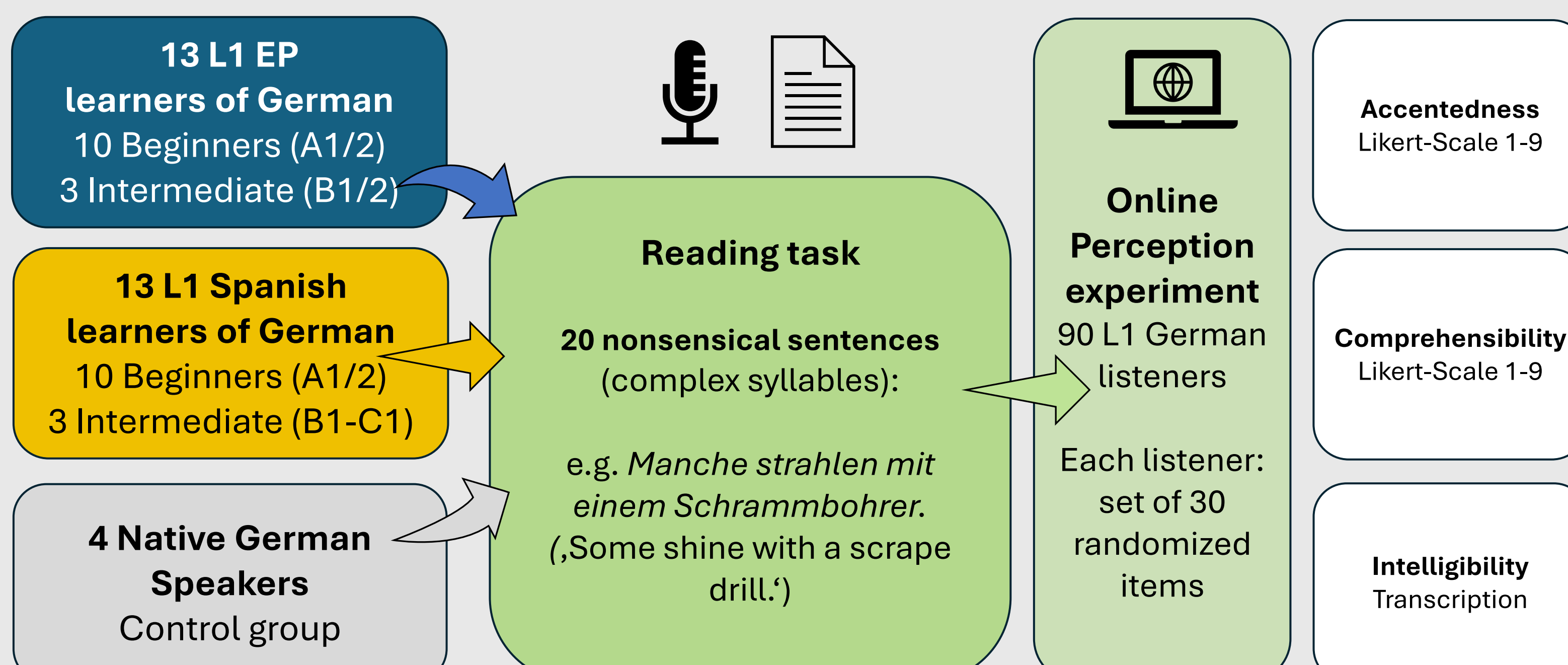
Contrastive analysis: German, Spanish, & EP

Feature	German	Spanish	EP
Complex syllables	++	-	(+)*
Vowel reduction	+	-	+
Accentual lengthening	++	-	(+)
Final lengthening	++	+	+

* through vowel deletion in unstressed syllables

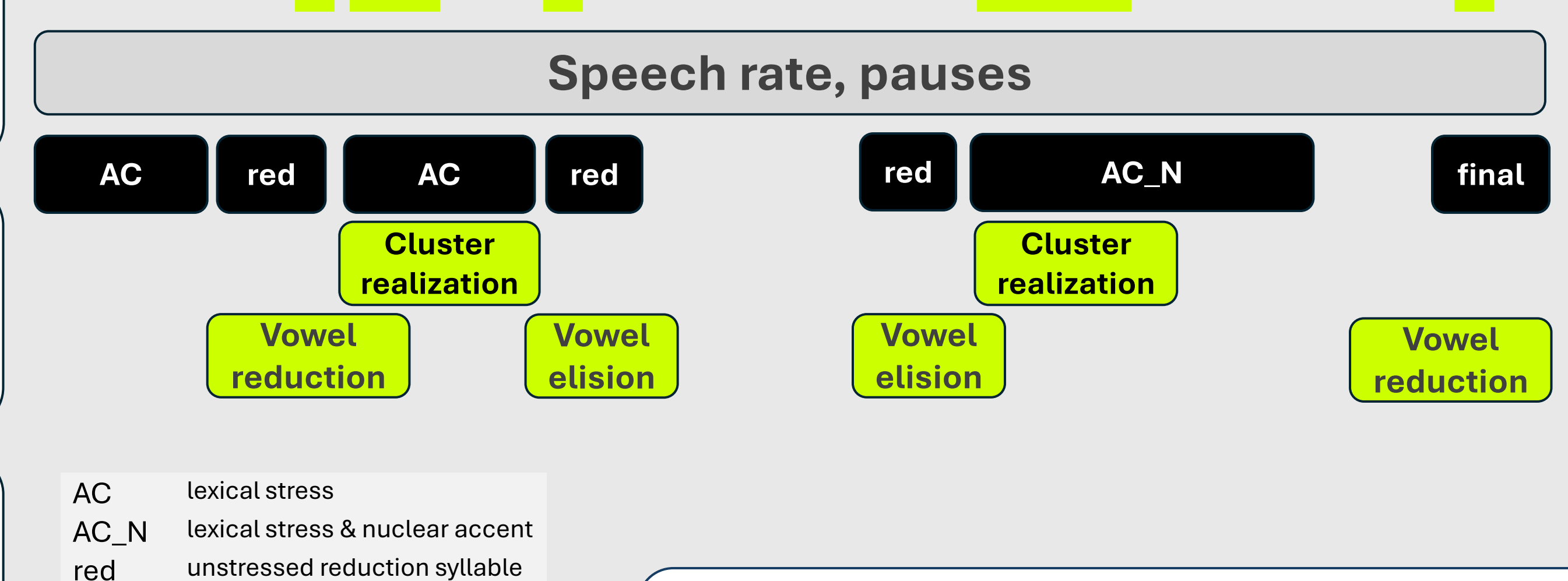
2. Methods

A. Recordings & perception experiment



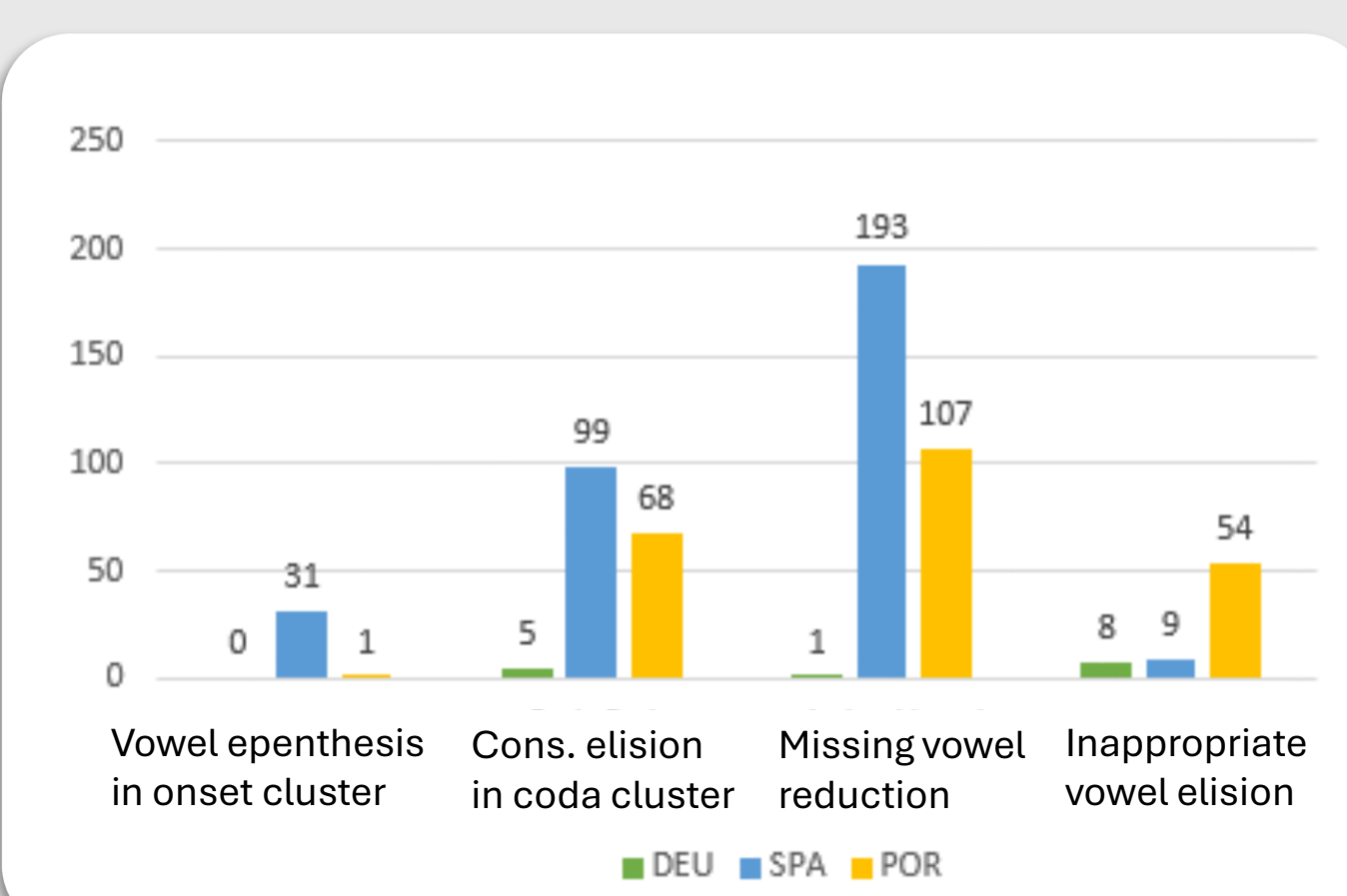
B. Annotation in PRAAT

Manche **strahlen** mit einem **Schrammbohrer**.



3. Results

Production



**Onset vowel
epenthesis**

(1) *Manche strahlen mit einem Schrammbohrer.*

> ['manxe **es**'tralen mit 'ainen **ej**'ramvörer]

**Coda
consonant
elision**

(2) *Hamburg reserviert schmale Punkttroller.*

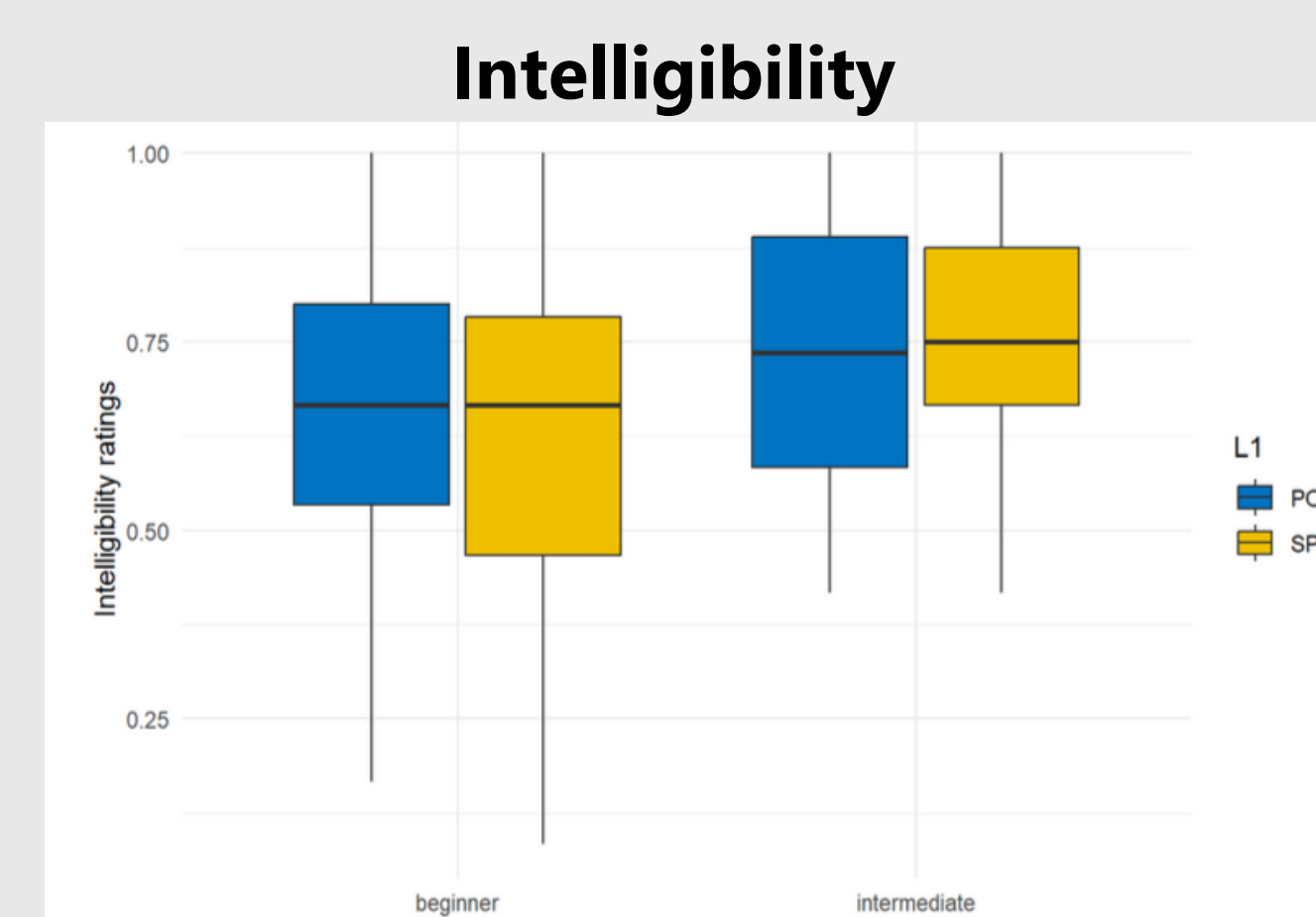
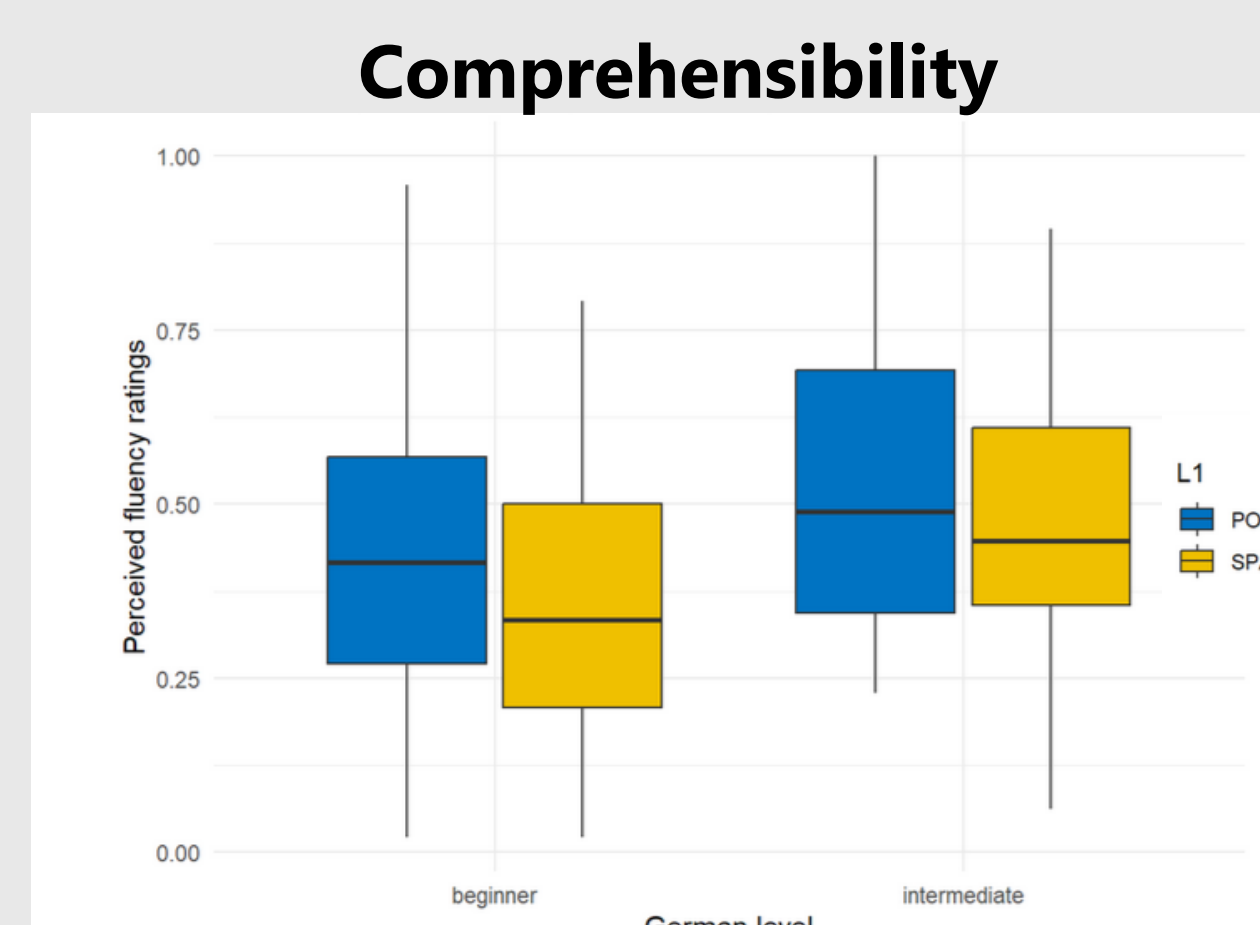
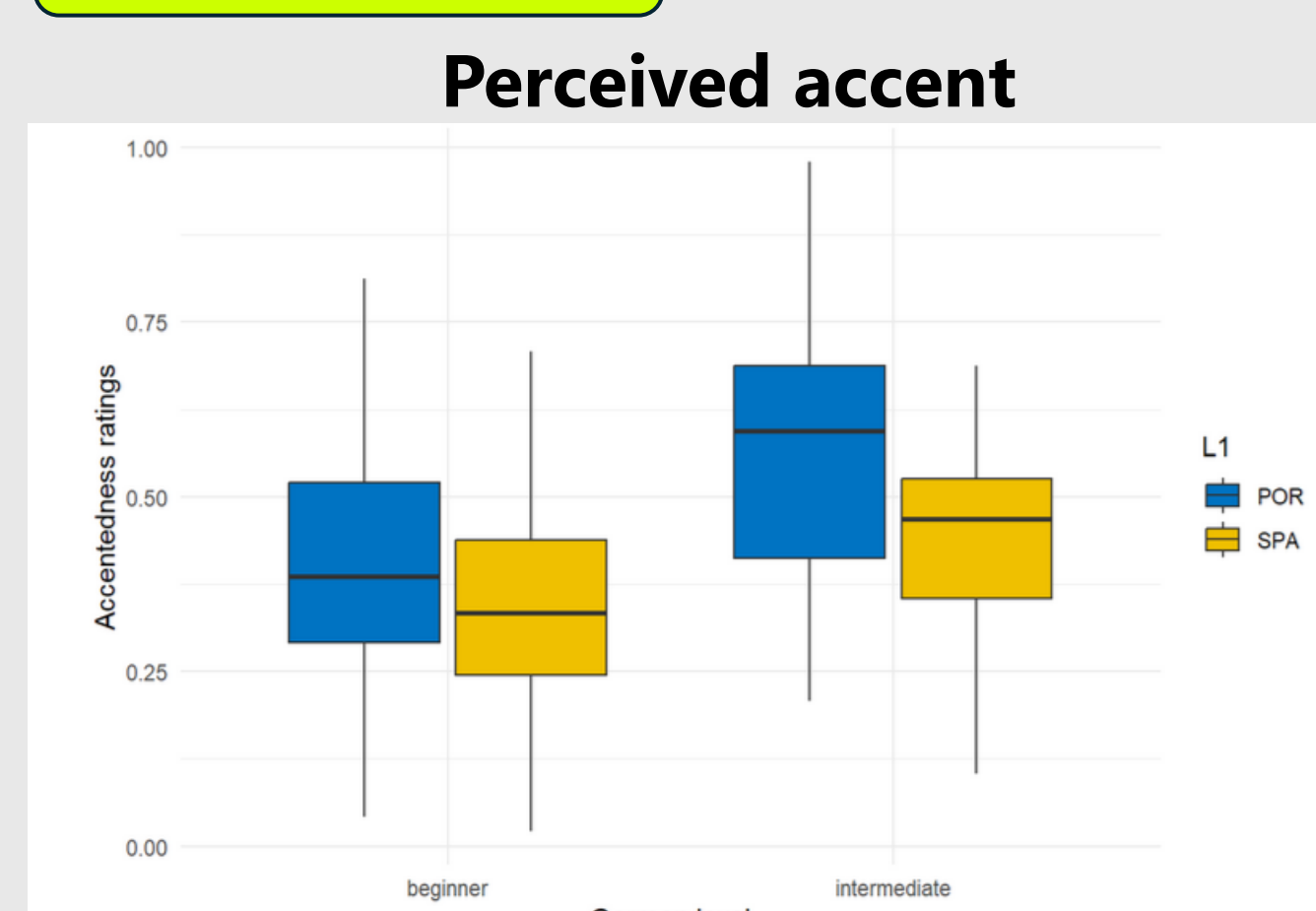
> ['hambuk rese'vi:r **l** 'jmale pun**l**'tröle]

**Inappropriate
vowel elision**

(3) *Er knetete exzellentes Astwachs.* > [knetet **l**]

(4) *Max endete mit der Markisenpracht.* > [endet **l**]

Perception



4. Conclusions

Production:

L1 EP learners have an **advantage in reducing vowels in unstressed syllables** and in **realizing complex syllables**, especially in **onset clusters**. This can be traced back to positive L1 transfer (cf. Li & Post 2014). Temporal patterns like accentual and final lengthening are still being analyzed.

Perception:

L1 EP speakers are rated as **less accented and better comprehensible** than L1 Spanish speakers, but this advantages decreases with higher proficiency.

L1 EP speakers **are not more intelligible**: Inappropriate vowel **elisions in unstressed syllables** by L1 EP learners are potential **sources of misunderstandings**, especially in final position (tense markers, flexion morphology).