

High English proficiency may impede the processing of Bulgarian-accented English for Bulgarian-English bilinguals

Background Little research explicitly focuses on the comprehension of one's native accent in the context of a second language compared to native standard productions of that language (e.g., a Bulgarian listening to Bulgarian-accented English). Generally, one's native accent in L2 speech is associated with processing disadvantages (Lagrou et al., 2011) although there is some indication that low proficiency listeners may benefit from low-proficiency speech (Ludwig & Mora, 2017). Based on Best and Tyler (2007) it may be expected that low proficiency L2 listeners rely on assimilations with L1 phonetic categories when processing L2 and hence could benefit from processing L1-accent in L2.

Research questions: Would listeners with low proficiency have faster RT, higher accuracy of processing, and faster adaptation to Bulgarian-accented English than native English due to phonetic assimilation between L1 and L2? Or would the pattern be the opposite due to overall smaller experience with English?

Participants: There were 93 L1 Bulgarian - L2 English late bilinguals (*mean age* = 30.2, *SD* = 9) who at the time of participation had lived in the UK at least for a full month (*mean LoR* = 6.1 years, *SD* = 5.1) and were born and raised in Bulgaria, at least until their teenage years. There was no correlation between LoR and proficiency. RP was the target spoken variety of 69% of participants, North American English of 14%. The rest had a mix of the two, Scottish-, Irish-, Bulgarian-accent target, or undecided.

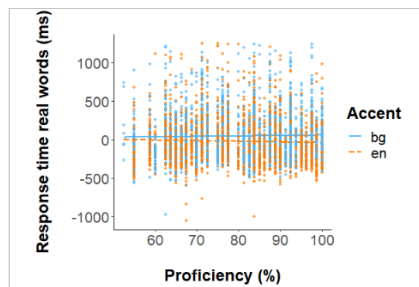
Methods: 64 high-frequency words and 64 non-words were recorded by 2 L2 English speakers from Bulgaria and 2 native English speakers from England. The Bulgarian speakers were rated as having similar levels of foreign accent strength and higher than the native English productions by 43 raters, raised in the UK as native English speakers. These stimuli were split into 4 unique lists and presented to the bilingual listeners as a lexical decision task in an online experiment. The stimuli were blocked by accent and by speaker and the blocks and words were presented in a random order. The bilingual listeners' English proficiency was measured via LexTale (Lemhöfer & Broersma, 2012). The experiment was administered online via the PsyToolkit platform (Stoet, 2010, 2017).

Results: Bulgarians with higher English proficiency processed Bulgarian-accented words more slowly (see Figure 1) and more incorrectly (see Figure 2) than native English stimuli. The participants with the lowest proficiency in the sample did not process the two accents with any systematic differences. RT log transformation did not change the results. However, the listeners with the lowest proficiency in the sample processed Bulgarian-accented English faster and more correctly than the listeners with highest proficiency in English (but not true of non-words, see Figure 3). A GAMM analysis investigated the interaction between accent, trial number within block for the first half of the block, and proficiency (as a continuous variable). When first exposed to a new accent, the listeners processed it differently depending on their English proficiency. Listeners with a lower English proficiency initially responded faster to Bulgarian-accented English than higher proficiency listeners (see Figure 4) but slowed down halfway. Listeners with a higher English proficiency initially responded faster to the native English stimuli compared to lower proficiency listeners (see Figure 5) and slowed down halfway.

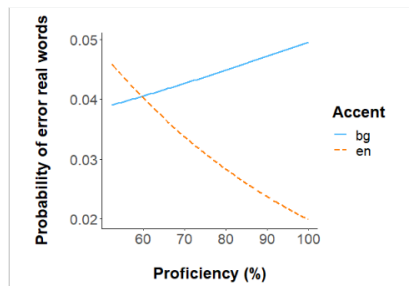
Discussion: The results suggest that as the bilingual listeners' L2 proficiency improves, they improve their processing of the standard native variety of that language, at the expense of their native accent (similar to Lagrou et al., 2011). This might be due to phonetic dissimilation between L1 and L2 phonetics, described in Best and Tyler (2007). In addition, there is evidence that the rapid adaptation to both Bulgarian-accented and native English speech is influenced by the listeners' English proficiency. Apart from at the start of a block, there is no evidence that lower proficiency listeners prefer their own accent, unlike Ludwig and Mora (2017), perhaps due to living in the UK instead of where L1 is spoken. The findings from the GAMM analysis support the disadvantage of high proficiency listeners of Bulgarian-accented English compared to lower proficiency listeners.

Conclusion: Consistent with Best and Tyler (2007), high proficiency listeners appear to have phonetic dissimilation between L1 and L2, while low proficiency listeners appear to have phonetic assimilations, affecting their respective speed and accuracy of processing Bulgarian-accented English.

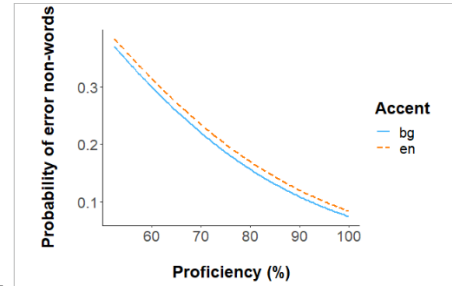
Figures



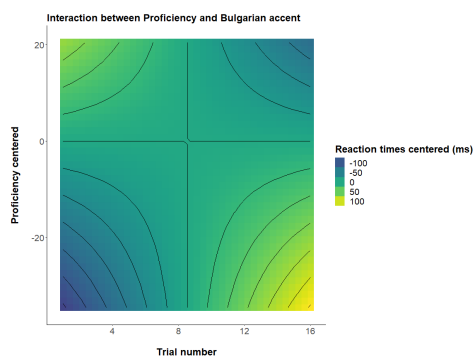
[Fig. 1]



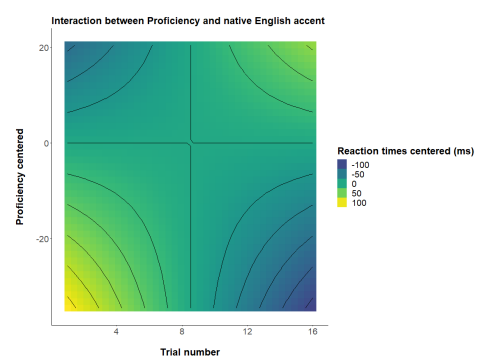
[Fig. 2]



[Fig. 3]



[Fig. 4]



[Fig. 5]

References

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