

Are multilinguals equally accented in L2 and L3? A foreign-accent rating study

Keywords: L3 acquisition, global accent, phonology, multilingualism

Research on foreign language acquisition has primarily focused on accent perception in either the second (L2) or third (L3) language (e.g., Munro & Derwing 1994, Lloyd-Smith 2021, Wesołek et al. 2023, Wrembel et al. 2023). However, to the best of our knowledge, no study to date compared the level of accentedness in two non-native languages within the same group of speakers. The current experiment investigated perceived strength of accent, comprehensibility, and the ability to identify the speaker's native language in speech samples obtained in L2 English and L3 Norwegian from native Polish speakers. The investigation aimed to examine the impact of grammatical errors (present or absent), speaking mode (read or extemporaneous), and the type of acquisition setting (naturalistic or instructed) on the perceived global accent and speech comprehensibility in L2 English and L3 Norwegian. Recordings were obtained from twenty L1 Polish speakers, mean age 28.6 years, who read aloud "The North Wind and the Sun" and retold a picture story in L2 English and L3 Norwegian (MAIN paradigm; Gagarina et al., 2019). The instructed learners were students of Norwegian philology, and the naturalistic learners were Polish migrants residing in Norway. The participants underwent proficiency tests and completed a Language History Questionnaire (Li et al., 2020) after the speech production tasks.

For each participant, we extracted sentence-long samples in L2 English and L3 Norwegian. The samples were normalized for loudness, and categorized into read, grammatically correct, and ungrammatical samples. Further, two online surveys were conducted involving 40 native speakers of Norwegian and 40 native speakers of English. Each rater listened to 80 pseudorandomized samples and judged them for perceived accentedness and comprehensibility on a 9-point Likert scale. An additional question involved the identification of the speakers' first language. The results of statistical analyses (linear mixed-effects models for ordinal response variables) indicated statistically significant main effects of learning setting and condition for comprehensibility judgements. However, no statistically significant effects were observed in the case of accentedness. Additionally, instructed learners were more frequently identified as Slavic in both L2 English and L3 Norwegian, while naturalistic learners tended to rely more on their L2 English when speaking L3 Norwegian and *vice versa*. Finally, we explored the effects of L2/L3 proficiency levels on the perception of foreign accentedness and comprehensibility, along with correlations between these parameters.

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