

When we tolerate a morphosyntactic error: An ERP study on non-native accented speech

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Grammatical processing can be affected by speaker identity (Hanulíkova et al., 2012), as well as construction frequency (Hahne & Friederici, 1999). However, it is still not clear whether native listeners are sensitive to the typicality of grammatical errors from a set of speakers (e.g., non-native L2 speakers). To address this question we considered grammatical errors that English natives speaking in Spanish frequently produce (i.e., gender errors) or infrequently produce (i.e., number errors; Franceschina, 2001). Spanish sentences, containing either gender or number agreement violations, as well as the corresponding controls, were presented in native or English accent. The participants were Spanish natives who reported being familiar with English accented Spanish and identified gender errors as a common mistake. ERP results time-locked to the onset of the target noun showed an interaction between Accent (native, nonnative), Grammar (control, gender, number) and topographical factors in the following time windows: 400-550, 800-1100, 1100-1400. Follow-up ANOVAs on native accent showed that gender and number violations elicited larger left negativities and larger P600s as compared to the control conditions. With the non-native accent, number violations elicited a greater P600 compared to controls. Gender violations with non-native accent elicited larger central-posterior negative effects between 400 and 550 ms, with no evidence of a P600 effect. The native accent results agree with previous ERP studies on morphosyntactic processing in auditory sentences, suggesting an early detection phase followed by reanalysis (Friederici, 2002). With non-native accent, while less-common errors were detected and repaired, frequently-produced errors did not show late repair processes but only a N400-like response, possibly reflecting difficulties during the target noun lexical retrieval. The present results provide evidence that the time course of parsing depends on the input error typicality.

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