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Authors

Arnold, Erik

Lonsdale, Deryle

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Using Eye Tracking to Examine Morphological Features and Working Memory Capacity in Agreement Processing

Erik Arnold

Brigham Young University, Provo, Utah, United States

Deryle Lonsdale

Brigham Young University, Provo, Utah, United States

Abstract

Morphosyntactic agreement refers to a head-dependent relation where similar features are shared between syntactic constituents. Several grammatical features are expressed in agreement relations through different manifestations of exponence (e.g. separative and cumulative). Whereas prior research has largely examined features in separative exponence (e.g. gender and number), this study investigates differences in the on-line processing of features in cumulative exponence. Using eye tracking, we investigated differences between second language (L2) learner processing of person, number, and tense features in Spanish verbal agreement. We also examined the effect of working memory capacity (WMC) on learners on-line processing of these same features. The results of our linear mixed effects model indicated learners had greater perturbation in processing person and tense agreement violations compared to number agreement violations. The results also revealed that learners with higher WMC demonstrated less perturbation to agreement violations of each feature type than learners with lower WMC.