

Individual Differences in Aspectual Coercion

Understanding that the sentence “For several minutes the girl jumped” means the girl jumped multiple times requires aspectual coercion, a form of enriched semantic composition. Using Event Related Potentials (ERPs), we have previously shown that aspectual coercion is associated with a sustained broadly distributed negativity at the critical verb, the point at which aspectual coercion is first licensed. In the current study, we built upon these findings to examine how individual differences affect online aspectual coercion computation in 32 undergraduate participants. We used the “Sentence Combining” and “Word Similarities” subtests of the Test of Adolescent and Adult Language, 4th ed. (TOAL-4) to access participants’ language proficiency. We found that neural activity in response to aspectual coercion was significantly correlated with participants scores on the Sentence Combining subtest ($p < 0.005$); as proficiency increased, so did the amplitude of the anterior negativity. On the other hand, Word Similarities scores were not found to predict modulation of ERPs evoked by aspectual coercion ($p > 0.1$). Taken together, these findings suggest that online computation of aspectual representations, at least those requiring coercion, may rely on combinatorial linguistic processes. Additionally, our findings of individual differences in online aspectual coercion costs may help explain apparent discrepancies in earlier studies of aspectual coercion.