ERP evidence for contextual and lexical influences on the comprehension of self-corrections

Comprehension of fluent utterances is assumed to involve incremental processes in which initial interpretations may require revision. We propose that comprehension of speaker self-corrections (*The boy went to the zoo/on a trip where he saw a lion/cougar, I mean, a tiger*) involves similar revision processes with three stages: identify the error, access the repair, and replace the error with the repair. Using ERPs, we investigated how lexico-semantic factors (context, frequency) affect these repair processes. ERPs were time-locked to repairs and analysis focused on three ERP components: LAN, memory retrieval; N400, lexical access; and P600, repair. Results of a PCA revealed a LAN for low frequency errors, an N400 for unbiased contexts, and a P600 for biased contexts. These results suggest that identifying errors is affected by frequency whereas contextual factors impact repair access and revision, providing further evidence that processing disfluencies involves the same mechanisms as processing fluent language.