

Asymmetries in Gender Processing: ERP Evidence from Subject-Verb Agreement

Friday, September 12, 2025 12:30 PM (1h 45m)

Previous ERP research has shown that violations of stereotypical gender expectations elicit responses similar to those seen in morphosyntactic gender agreement violations. These studies did not report any expected semantic effect. The present work aims to investigate the effect of stereotypical and grammatical gender on subject-verb agreement processing. Participants (N=44) silently read sentences presented word by word on a computer screen while EEG was recorded. Sentences contained nouns in subject position that were stereotypically[S] or grammatically[G] masculine (e.g. dirigente[S, M], “manager”; contadino[G, M], “farmworker”) or feminine (e.g. badante[S, F], “caregiver”; vicina[G, F], “neighbor”) and were followed by masculine or feminine verb forms (e.g. è entrato[M]/entrata[F], “he/she entered”). Results showed a gender asymmetry for grammatical gender processing: agreement violations following a masculine noun elicited an N400; whereas violations after a feminine noun elicited a P600. No significant effect was found for stereotypical gender. These findings indicate that masculine forms may be processed differently, with gender potentially remaining underspecified and resolved through context, whereas feminine forms appear to demand explicit morphosyntactic agreement. This asymmetry in processing may have implications for models of gender agreement in language processing, highlighting how context and explicit agreement mechanisms may interact in real-time sentence comprehension.

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Session Classification: Lunch and poster 2

Track Classification: Language, reading and music