

## Real-time processing of grammatical gender in L2 and bilingual speakers of Spanish

Although we recognize that grammatical gender assignment is mostly arbitrary, its presence has consequences for real-time sentence processing. For example, using a head-turning paradigm, Lew-Williams and Fernald (2007) demonstrated that Spanish-speaking children (4 yo) and adults use gender-marked definite articles (i.e. *el* “the<sub>masc</sub>”, *la* “the<sub>fem</sub>”) as a facilitatory cue for target noun recognition in informative contexts, i.e. when pairs of objects that differ in grammatical gender are visually presented (e.g. *el carro* “the<sub>masc</sub> car<sub>masc</sub>” and *la pelota* “the<sub>fem</sub> pelota<sub>fem</sub>”). I will present a series of studies using the visual world paradigm (Tanenhaus et al., 1994) to further explore this facilitatory effect in multilingual speakers. In the first set of experiments, I ask whether second language speakers of Spanish who speak a native language that similarly uses grammatical gender (i.e. Italian) or that lacks grammatical gender (i.e. English) are also able to utilize gender-marked determiners to facilitate target noun recognition in Spanish. This specific set of L2 speaker profiles allows us to determine the contribution of structural similarity and proficiency for grammatical gender processing. In the second set of experiments, I investigate the consequences for highly proficient Spanish-English bilinguals who engage in a bilingual mode of speech known as code-switching where the use of grammatical gender in production is highly asymmetric--both *el cookie* and *la cookie* (“the cookie” Sp. *la<sub>fem</sub> galleta<sub>fem</sub>*) are attested but only *el fork* is attested and not \**la fork* (“the fork” Sp. *el<sub>masc</sub> tenedor<sub>masc</sub>*). Thus, the second set of experiments tests whether Spanish-English bilinguals’ use of grammatical gender as a facilitatory cue changes due to exposure to and use of this asymmetric gender distribution in production. In tandem, the studies underscore multilingual speakers’ sensitivity to grammatical gender as an online cue to sentence processing while also demonstrating how linguistic experience can change how bilinguals use grammatical gender real-time sentence processing.