Abundant evidence suggests bilinguals show advantages in inhibitory control compared to monolinguals (e.g. Kroll & Bialystok, 2013; Kroll et al., 2015) and exhibit processing differences when responding to stimuli in either their L1 or L2 (Chaouch-Orozco et al., 2019). Recently, this supposed bilingual advantage in cognition has come under scrutiny (e.g. by Lehtonen et al., 2018). This study explored bilingual inhibition dynamics and whether the bilingual advantage is detectable in a comparison between Italian-English bilinguals and English monolinguals.

*Method*. Participants responded to a modified Stroop procedure while 64-channel EEG and reaction times were recorded. Stimuli for bilingual participants (*n* = 7) consisted of Stroop colour words preceded by semantically unrelated Italian and English primes to elicit language switching differences, while monolinguals (*n* = 19) were primed only with English words.

*Results*. Linear mixed model analyses revealed no differences between monolinguals and bilinguals on a behavioural level or N400 difference waves after controlling for participant and trial effects, though monolinguals exhibited attenuated N2 amplitudes (*p* < .001), indicating differences between the two groups on conflict monitoring grounds. Analysis of bilingual reaction times showed slower responses to L2 Stroop words regardless of prime type (*p* < .001) and no significant language switching effect. Within-language trials evoked significantly more negativity than between-language trials (*p* < .001), showing that a switching effect may underlie bilingual cognition but may not be evident in behavioural measures.

These results do not support the bilingual advantage theory in inhibition as no RT advantage for bilinguals or conflict resolution differences were found. This conflicts with existing literature in the field but is part of a growing body of research sceptical towards the bilingual advantage. However, the study does suggest that underlying processing differences between monolinguals and bilinguals exist, in line with some previous investigations (e.g. Kousaie & Philips, 2012).

**References**

Kroll, J.F., Dussias, P.E., Bice, K., and Perrotti, L. (2015). Bilingualism, Mind, and Brain. *Annual Review of Linguistics*, 1, 377-94.

Kroll, J. F., & Bialystok, E. (2013). Understanding the consequences of bilingualism for language processing and cognition. *Journal of cognitive psychology*, 25(5), 497-514.

Kousaie, S., and Philips, N.A. (2012). Conflict monitoring and resolution: Are two languages better than one? Evidence from reaction time and event-related brain potentials. *Brain Research*, 1446, 71-90.

Lehtonen, M., Soveri, A., Laine, A., Järvenpää, J., de Bruin, A., & Antfolk, J. (2018). Is bilingualism associated with enhanced executive functioning in adults? A meta-analytic review. *Psychological bulletin*, 144(4), 394.

Chaouch-Orozco, A., Alonso, J. G., & Rothman, J. (2019). Exploring the Role of L2 Experience-Related Factors in Cross-language Lexical Priming. *Proceedings of the 43rd Boston University Conference on Language Development*, ed. Megan M. Brown & Brady Dailey, 137-150.