

## Is bilingualism an advantage for cognitive control? **Evidence from the Simon Task**

## **ANU Language Teaching Forum**

Tuesday 5 May 2015, 5pm to 6pm

Room: Al-Falasi lecture theatre, CAIS, 127, Ellery cres, ANU

Speaker Célia Mendes

PhD Candidate, Department of Psychology, University of Otago



Several studies point to the idea that being proficient in more than one language leads to positive cognitive gains, namely in attentional control and conflict monitoring (Barac & Bialystok, 2012; Bialystok, 2006; among many others). Such studies propose that the process of acquiring two languages and of simultaneously managing those languages, inhibiting one of them so that the other one can be accessed and used without interference, allows bilinguals to develop inhibitory control skills that extend into other cognitive domains. However, the existence of a bilingual advantage in nonverbal inhibitory processes has been challenged: some authors have

highlighted methodological issues related to the control of confounding variables (Adesope, Lavin, Thompson, & Ungerleider, 2010; Hilchey & Klein, 2011; Paap & Sawi, 2014); additionally, recent studies have failed to replicate the bilingual advantage in conflict control, suggesting limitations to the robustness of previous findings (Antón et al., 2014; and many others).

The present study set out to investigate the existence of a cognitive bilingual advantage in the Simon Task (Craft & Simon, 1970). Participants were 38 English monolingual speakers and 77 bilingual speakers whose native tongue was not English, who all were highly proficient in English. The age of onset of bilingualism ranged between birth and 49 years of age, and the length of active bilingualism ranged between 5 and 41 years. The sample comprised younger and older participants, between the ages of 18 and 57. A bilingual advantage would have been supported by a reduced susceptibility to the conflict effect in response times and in error rates. Results showed no evidence of a statistically significant bilingual advantage in conflict effect, as both groups presented similar results in this measure.

This forum is jointly coordinated by the College of Arts & Social Sciences (the School of Literature, Languages & Linguistics and the Centre for Arab & Islamic Studies) and the College of Asia & the Pacific (the School of Culture, History & Language).

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