Cognitive control ability is related to ACC sulcal variability (Cachia et al. 2017)

We found an interaction between ACC sulcation and bilingualism on control

Sulcal variability predicts cognitive control in multilinguals and monolinguals

Asymmetry in ACC sulcation (fixed in utero) has impact across the lifespan

Early brain development interacts with effects of culture on cognitive control

Preparatory Study

We’ve completed a distribution analysis of the ACC sulcal pattern with n=270

Subsample (N=157) Flanker Task across age 18-75 and education 5-26 years.

Gender (152 F, 118 M), ethnicity (Caucasian = 130; South Asian = 43; East Asian = 97) and language experience (multilingual = 155; monolingual = 115).

Prevalence of leftward ACC asymmetry unaffected by gender or ethnicity but conflict interacts with ACC sulcal symmetry in monolingual and multilinguals.

Results