The effect of bilingualism on cognitive and affective perspective-taking in autistic adults

Bérénègre G. Digard 1, Antonella Sorace 1, Andrew Stanfield 2, Sue Fletcher-Watson 2

1 School of Philosophy, Psychology, and Language Sciences, University of Edinburgh, 2 Edinburgh Medical School, University of Edinburgh

Introduction

Perspective-taking (PT) development is stimulated by social interactions and linguistic inputs1, and it can be a source of difficulties for autistic people2. Bilingualism seems to influence the development of cognitive and affective PT3 in neurotypical adults, though:

- it is unclear which bilingualism feature4 drives the effect
- it is unknown whether the same effect exists in autism

Objectives

Identify the bilingualism features influencing level 1 and level 2 cognitive and affective perspective-taking processes.

Methods

- Participants: 39 autistic adults, aged 16-61, knowing more than 1 language
- Bilingualism measures: Demographic & Language History Questionnaires
- Executive skills: Test of Everyday Attention (TEA), tests 2 (attention), 3 (inhibition), 5 (switching)
- Non-verbal IQ: WASI II, PRI score
- Perspective-taking: Adult Theory of Mind-extended task5

Results

Stepwise regression models to build optimal models for each PT measure. Final models were analysed in terms of overall patterns of predictor selection.

Discussion

In an autistic bilingual and multilingual adult population, cognitive and affective PT seem to be influenced by bilingualism, above and beyond age, non-verbal IQ and executive skills.

The main driver of the bilingualism effect seems to be the age of acquisition of the 2nd language (predictor the most frequently selected). This suggests that bilingualism has a developmental influence on PT: in autism, early bilingualism seems to stimulate the development of PT in a long-lasting way, with effects visible in adulthood.

These findings suggest that bilingualism is not harmful for PT in autism, and even has social cognitive benefits. This has implications for parents, practitioners, and educators.