

Project Summary

Bilingualism, Migration and Inhibitory Control: A Meta-Analysis and Investigation

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Introduction

Research has shown that bilingualism is associated with substantial cognitive advantages that may help to protect against dementia. However, much of this research has recently come under scrutiny and has been criticized for a number of methodological failings. More recent research has been unsuccessful in finding any such advantage. It has been suggested that migration is a factor that also benefits cognition. Migration has been largely unaccounted for in bilingualism research, and thus may have influenced past results to an unknown extent - potentially having exaggerated the cognitive effects thought to be caused by bilingualism. The purpose of this study was to what effect migration has on cognition, independent of bilingualism. An experimental study compared the performance of migrants with non-migrants on three tasks requiring cognitive control.

Method

28 older adults in Scotland and 26 older adults born in Scotland but living in Australia participated in the study. All participants were monolingual, healthy, and had normal or corrected-to-normal hearing and vision. Participants completed a lifestyle questionnaire, a dementia screening test, and three tasks measuring cognitive control – a Simon arrow task, a motion flanker task, and a static flanker task.

Results

The study found that, across the three cognitive tasks, the non-migrant group (i.e. the Scottish residents) either performed significantly better than the migrant group (the Scottish participants living in Australia) in terms of reaction time and/or accuracy, or there was no difference between the two groups. However, it is possible that this result was due to significantly different gender ratios between the two groups, or that the migrant group displayed significantly more dementia symptoms than the non-migrant group.

Conclusions

The results of the study indicated that migration is not such an influential factor as might have been thought. Future research should focus on achieving higher methodological standards, in order to ensure that findings are accurate. The effect of migration on cognition needs to be investigated further, in larger sample sizes and with migrants from a wide range of backgrounds.