

Os textos são da exclusiva responsabilidade dos autores
All texts are of the exclusive responsibility of the authors

THE MIDDLE-AGE BRAIN

Marinella Cappelletti

Psychology Department, Goldsmiths, University of London

Grant 293/16

Background: There is surprisingly no systematic investigation of the brain during middle-age (age: 40-60), and specifically of the cognitive, well-being and neuronal profile characterizing it. This is partly because of the assumption that more informative brain changes are observed while growing up or ageing. However, looking at the middle-aged brain is of fundamental importance because if the roots of age-related changes can be identified earlier in adulthood, then cognitive, psychological and well-being issues that are often serious in late-life may be minimised or prevented.

Aims: This project aims at generating a novel, informed, and detailed profile of the middle-aged brain by studying the correlational and causal links between brain, cognitive functions and well-being. Ultimately, this aims to provide critical information to prevent or minimize some cognitive, psychological, and health-related issues characterising the fast-growing ageing population.

Method: We used behavioural tasks as well as established questionnaires for well-being measures, together with electroencephalography (EEG) and brain stimulation.

Preliminary results: As planned, the first 6 months of the grant focused on data collection. This consisted of two steps: (1) the preparation of material and (2) the recruitment of middle-aged adults (age: 40-60) to be subsequently compared to younger (age: 20-30) and older adults (age: 65-75). So far, we have successfully prepared all the material for the testing, (behavioural task, EEG and brain stimulation) and we also completed the data collection for the middle age sample. For all our participants, we gathered behavioural data primarily based on a task assessing working memory and executive functions. We have also collected information on the participants' well-being in terms of their anxiety, depression and sleeping habits as well as a measure of general functioning (such as the Mini Mental State Examination). As planned, electrophysiological data and brain stimulation have also been collected. The behavioural, well-being data as well as the EEG have been scored and prepared for the data analysis in the next 6 months, as scheduled.

Keywords: Ageing, Brain, Cognition, Well-being, EEG, Brain stimulation

Email contact: m.cappelletti@gold.ac.uk