Influence of executive control on post-stroke aphasia

Difficulty/slowness in thinking of the right word is a common and frustrating symptom of stroke. Whilst disruption to language systems is clearly a major component in such anomia, there has been debate about the contribution of more general cognitive control processes (sometimes called ‘executive functions’) in contributing to word retrieval (e.g. Schumacher et al., 2022). There are good reasons why this might be the case. Firstly, word retrieval in healthy people can be slowed by concurrent executive demands (e.g. dual task situations). Secondly, executive functions are particularly important for developing new strategies to meet novel challenges. These can be seen as forming a kind of ‘cognitive scaffolding’, allowing repeated practice of a task until the coordination of necessary processes becomes incrementally more automatic. To date, investigations of executive function – post-stroke anomia links have largely been correlational (the co-occurrence of executive and language impairments), or have looked at disruptive influences of dual task demands on fluency (e.g. Gehman and Faroqi-Shah, 2019). The current project will examine potential facilitation of word finding via interventions that may increase available executive capacity (e.g. Farooqui and Manly, 2019) and whether such techniques have potential application in enhancing rehabilitation efficacy.