



Using the Welsh language as a measure of neural resistance to cognitive decline and Dementia

As people age their cognitive performance in areas such as memory, attention and language processing seem to universally decline. This process is exacerbated with the onset of neuro degenerative disease, such as Alzheimer's Disease. With an ever-increasing aging population in most European countries, more people than ever are suffering from the consequences of cognitive decline, losing their individuality and sense of identity. Crucially the onset and speed of this decline varies considerably between individuals, with some proving to be more resistant to damage than others. The study of people who are able to speak two or more languages has led many researchers to describe a "bilingual advantage" in some areas of thought (Bialystok & Feng, 2011). These people are believed to have an increased cognitive reserve (Scarmes & Stren, 2004), by developing a greater number of stronger connections between brain cells than their monolingual counter parts. In this investigation, research has been conducted to find out the extent of the effect natural Welsh-English bilingualism on a plethora of cognitive processes people rely on in their day to day lives. If the use of the Welsh language in a modern setting can illuminate changes in the bilingual brain of older adults, new treatments may be developed to slow general decline of cognition. The research has present a number of interesting findings, highlighting not only the development and changes of the human brain across the lifespan, but also some of the inherent limitations of linguistic research, particularly when studying bilinguals.

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