

Brain Lateralization in Alzheimer's Disease

Yile Wang¹ and Ana Solodkin^{1,*}

¹Department of Neuroscience, School of Behavioral and Brain Science, The University of Texas at Dallas, Richardson, 75080, USA

*email: solodkin@utdallas.edu

ABSTRACT

The alternation of the brain lateralization has been reported from many studies.

Introduction

Brain Lateralization in healthy aging and AD:

In William Calvin's book 'The Throwing Madonna', he mentioned that a hypothesis about why human is so unique to¹

AD is a disconnection syndrome: From an early stage of Alzheimer's Disease (AD) research, scientists have realized that AD pathology is a consequence of disturbance of the brain connectivity². Till today, a growing volume of literature has demonstrated that Alzheimer's Disease (AD) is a brain disconnection syndrome³²⁴⁵ from several aspects. Daianu and colleagues have found widespread structural connectivity breakdown in AD patients brain networks compared to normal aging⁶. From network analysis, almost all the AD studies have reported that some brain network features such as the long range connectivity⁷, interhemispheric connectivity⁸, node centrality, synchronizability and modularity have decreased in AD⁹. All the evidence suggests that the disconnection syndrome might be a major manifestation of the progression of the AD.

Decrease of interhemispheric connectivity in AD: In all range of these disconnection syndromes, decrease of the interhemispheric connectivity is one of the most common results in AD, which has been reported in several studies⁶¹⁰¹¹.

Results

Up to three levels of **subheading** are permitted. Subheadings should not be numbered.

Subsection

Example text under a subsection. Bulleted lists may be used where appropriate, e.g.

- First item
- Second item

Third-level section

Topical subheadings are allowed.

Discussion

The Discussion should be succinct and must not contain subheadings.

Methods

Topical subheadings are allowed. Authors must ensure that their Methods section includes adequate experimental and characterization data necessary for others in the field to reproduce their work.

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Acknowledgements (not compulsory)

Acknowledgements should be brief, and should not include thanks to anonymous referees and editors, or effusive comments. Grant or contribution numbers may be acknowledged.

Author contributions statement

Must include all authors, identified by initials, for example: A.A. conceived the experiment(s), A.A. and B.A. conducted the experiment(s), C.A. and D.A. analysed the results. All authors reviewed the manuscript.

Additional information

To include, in this order: **Accession codes** (where applicable); **Competing interests** (mandatory statement). The corresponding author is responsible for submitting a [competing interests statement](#) on behalf of all authors of the paper. This statement must be included in the submitted article file.

Condition	n	p
A	5	0.1
B	10	0.01

Table 1. Legend (350 words max). Example legend text.

Figures and tables can be referenced in LaTeX using the ref command, e.g. Figure 1 and Table 1.



Figure 1. Legend (350 words max). Example legend text.