

THE READING BRAIN

From written words to neural activity

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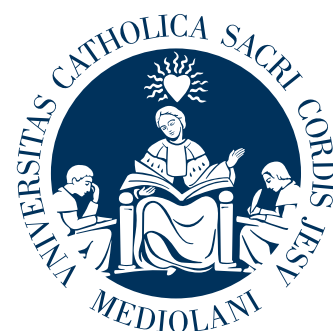
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Cognitive and computational models of reading aloud agree on the existence of two procedures for reading. We use sub-word processes for the pronunciation of words without semantics or pseudowords (e.g., atendier). We employ whole-word processes that recruit word-specific information for the pronunciation of exception words, i.e. words with atypical orthography-to-phonology mappings (e.g., pint). Regular words (e.g., mint) can be correctly read by means of either process. As we age, the way we read changes. Younger adults rely more on sub-word processes for reading. Conversely, older adults rely more on whole-word processing and make less errors when reading exception words. We will present behavioral and neuroimaging evidence from normal and pathological aging that shows that the behavioral changes found in reading during normal aging also have a brain counterpart in the reading network. This brain network changes during aging to sustain exception and regular word reading. Particularly, the anterior temporal lobes, a key brain region implicated in whole-word reading, is more active in older adults when reading words. We will discuss these findings in light of current psycholinguistic models of reading.

Web Conference

Thursday, February 11th, 2021

H. 15:30 Milan | H. 9:30 Quebec City



Informazioni

Fai clic qui per partecipare alla riunione

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