Nature of the link between rapid automatized naming and reading

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Rapid automatized naming (RAN) is known as one of the best predictor of reading skills. So far, the literature has showed two different explanations about the link between reading and RAN. Some authors argued about a phonological core deficit while others argued about a double deficit. In this case, mechanisms underlying RAN could be generalized speed of processings. These present two studies aimed to understand the link between RAN and reading skills using speed of processing tasks, text-reading tasks and a new version of RAN task (repeated versus non-repeated items). Study 1 assessed RAN, phonological awareness (PA) and reading performance (words reading) in 88 children of second grade. Results showed that RAN firstly predicts reading accuracy. Datas confirmed the double-deficit hypothesis of Wolf & Bowers with the presence of 4 distinctive groups (high RAN & high PA, low RAN & high PA, high RAN & low PA, low RAN & low PA). Study 2 investigated Kail's proposal that speed of processing underlies the relationships between RAN and reading. Nineteen children of second grade were asked to perform 2 speed of processing tasks and 2 reading tasks (text reading and comprehension). Results showed no link between RAN and speed of processing, contradicting Kail's hypothesis. Limits and implications (theoretical and practical) are discussed.

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From construction to deterioration of the lexico-semantic network: A priming paradigm study

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Objectives According to Rubial-Alvarez et al. (2013), the comparison of cognitive functioning between children and patients with an Alzheimer's disease shows an inverse evolution pattern that supports the hypothesis of retrogenesis. The purpose of our research is to analyze the retrogenesis of the lexicosemantic network in order to better understand the conceptual organization of semantic memory. Population 90 children aged 5-9 and 90 patients at different stages of the Alzheimer's disease. Methodology We are elaborating an experimental paradigm adapted to these different populations. Firstly, we adapted a semantic memory questionnaire, initially developed by Laiacona et al. (1993), for children. An original amusing computing interface was then elaborated. The purpose is to create groups at the same stage of semantic development or deterioration. Secondly, we created a priming paradigm in order to evaluate children and AD patients on the words relations strength in their semantic memory. Many pre-tests and psycholinguistic variables analyses (verbal association, frequency, age of acquisition, conceptual strength) have allowed to select 22 words (11 naturals and 11 manufactured) associated with a taxonomic and a thematic linked word. Results Experiments are now in progress. The semantic memory questionnaire, the priming paradigm and the first results will be presented.