Developing semantic networks

Individual differences in Dutch monolingual and bilingual children’s semantic knowledge and reading comprehension

Vocabulary knowledge is a fundamental requirement for school success, not least because of its importance for the acquisition of literacy skills. However, the acquisition of word knowledge entails more than simply extending vocabulary size. In this dissertation, three other aspects of word knowledge were studied: firstly, semantic access, that is the speed with which words’ semantic representations are retrieved; secondly, the structure of individuals’ semantic networks, i.e. the relative prominence of different types of semantic relations represented within these networks; and thirdly, the amount of priming, i.e. automatic activation, of these semantic relations. For each of these aspects of word knowledge, the contribution to individual differences in reading comprehension was assessed, in an attempt to tease apart the vocabulary components that feed into the complex skill that is comprehension. Additionally, differences between monolingual and bilingual minority children were studied.

The three empirical studies comprising this dissertation – word association, single-word semantic priming and sentence-level semantic priming – showed limited significant differences between monolingual and bilingual participants. On each of the focal vocabulary aspects and most other tasks such as reading comprehension and vocabulary size, the bilingual minority children appeared to perform similarly to their monolingual peers. The predictive value of the vocabulary measures for individual differences in reading comprehension was also found to be limited: although significant contributions of certain associative preferences could be identified, semantic access and priming showed no significant influence on the reading comprehension scores. Overall, the findings emphasize size as the main vocabulary component contributing to reading comprehension.

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