Article: 1209
Topic: 41 - Child and Adolescent Psychiatry

CENTRAL AUDITORY PROCESSING AND MEANING: 'EARLY' DEFICITS IN LANGUAGE PROCESSING IN SLI

M. Schecker

Uni-Kliniken, Kinder- und Jugendpsychiatrie, Kognitive und Klinische Neurowissenschaften, Neurolinguistisches Labor, Albert-Ludwigs-Universität Freiburg, Freiburg im Breisgau, Germany

In neurolinguistic language processing models always a linear sequence of language processing steps assume. See the model of language reception of Friederici and Cramon. This contradicts however results of new ERP-studies. Pulvermüller et al. show for the central auditory processing, that words in opposition to pseudo-words as deviants in an oddball paradigm conduct to a significant increase of the amplitude of the so-called early MMN or MMN1 (ca. 120 - 180 ms after stimulus-onset). This shows that already the central auditory processing activated long-term memory for words.
We conducted similar tests and come to somewhat different results. The processing of words in opposition to pseudo-words produced no significant increase in the amplitude of the MMN1. But the amplitude of the so-called late MMN or MMN2 (130 - 180 ms after stimulus-onset) decreased significantly. We have interpreted these results as facilitating processing.
We have found identical results in 5-11 years old children. In SLI-children of the same age there was no effect of this kind. This might explain why SLI-children have not only deficits in building inventories of grammatical entities in the lexicon, but also deficits in building vocabulary.

https://doi.org/10.1016/S0924-9338(13)76290-4 Published online by Cambridge University Press