

ERP-evidence for delayed gap-filling in SLI

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13 children with specific language impairment (SLI) and 17 typically developing children ($M=10.3$ years) listened to sentences with ungrammatically filled gaps (a) and control sentences (b); each trial was followed by a comprehension question:

- (a) *The *zebra* that the hippo kissed the camel on the nose ran far away.
(b) The *weekend* that the hippo kissed the camel on the nose he ran far away.

The SLI children had significantly poorer comprehension, but there was no interaction between group and question type (object, subject, yes-no question).

ERPs were time-locked to the *the camel*. The control group exhibited an eLAN about 115ms after the filled gap. SLI children exhibited a later ERP response, characterized by an anterior positivity and posterior negativity during the 400-900ms time region following the camel. This shows that the SLI parser detects the ungrammaticality (and therefore has knowledge of gap-filling), but is significantly slower in computing it.