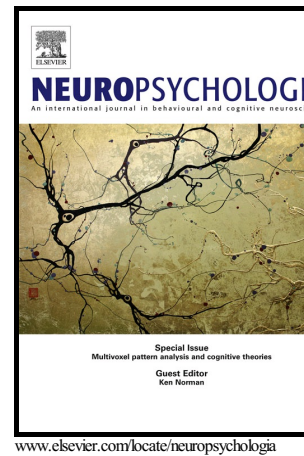


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## **Development of a selective left-hemispheric fronto-temporal network for processing syntactic complexity in language comprehension**

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### **Abstract**

The development of language comprehension abilities in childhood is closely related to the maturation of the brain, especially the ability to process syntactically complex sentences. Recent studies proposed that the fronto-temporal connection within left perisylvian regions, supporting the processing of syntactically complex sentences, is still immature at preschool age. In the current study, resting state functional magnetic resonance imaging data were acquired from typically developing 5-year-old children and adults to shed further light on the brain functional development. Children additionally performed a behavioral syntactic comprehension test outside the scanner. The amplitude of low-frequency fluctuations was analyzed in order to identify the

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