

Morphosyntactic and discourse processing in Russian-speaking children with developmental language disorder

Militina Gomozova, Valeriia Lezzhova, Nina Zdorova, Nina Ladinskaya, Anastasiya Lopukhina
Center for Language and Brain, HSE University, Moscow, Russia



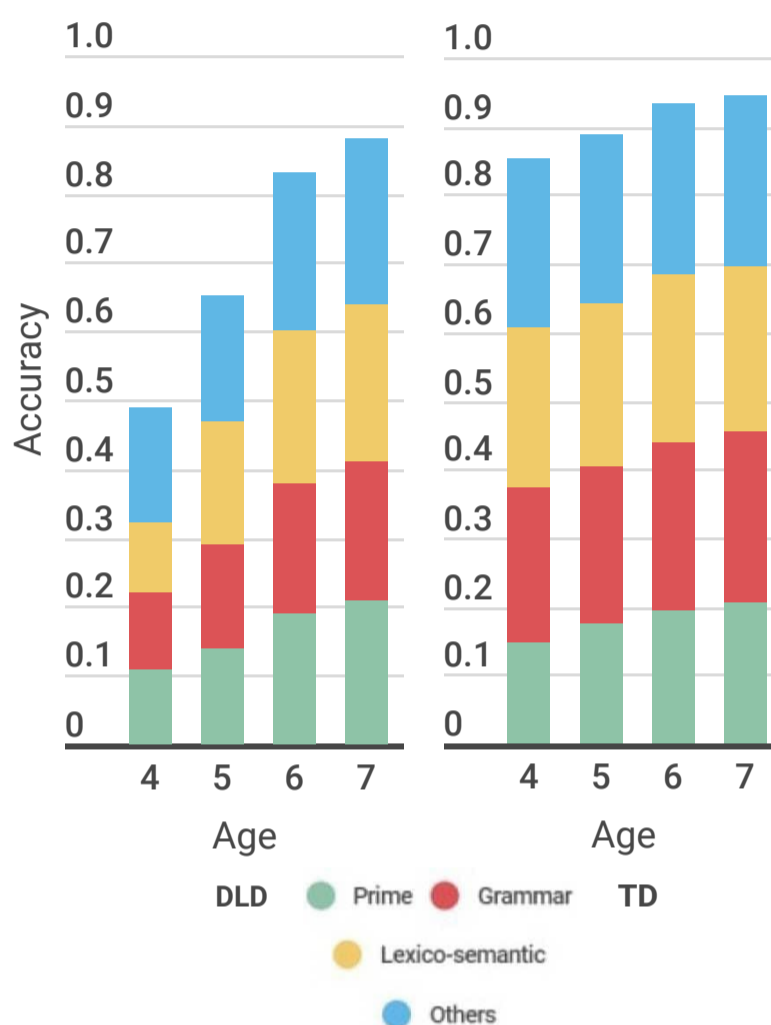
Introduction

- Children with developmental language disorder (DLD) mostly struggle with morphosyntactic and narrative processing (Acosta Rodríguez et al., 2017; Moscati et al., 2020), specifically in languages with free word order and rich inflectional morphology, like Russian (Dressler, 2012).
- The present study aims to compare morphosyntactic and discourse processing of Russian-speaking 4-to-7-year-old typically developing children (TD) and children with DLD.

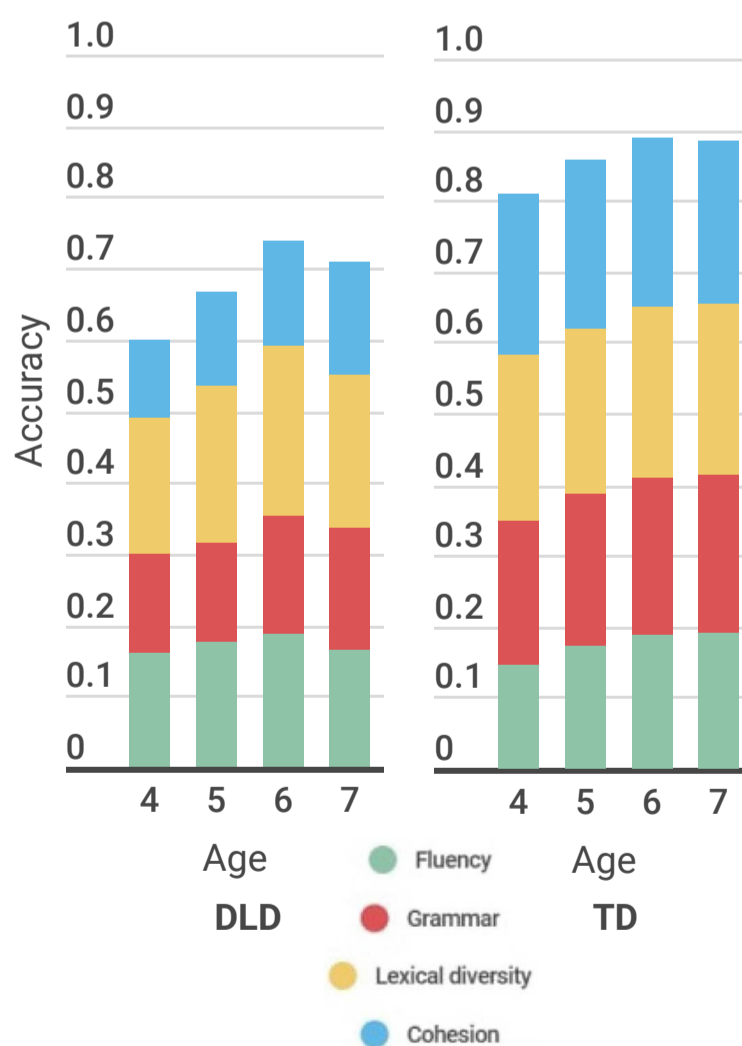
Results and Discussion

- As expected, DLD children were less accurate than TD children in all four tasks
- Children's performance improves with age in all tasks (~1-13%).
- In sentence-picture-matching task, DLD children better processed sentences with locative than with instrumental case, whereas for TD children the pattern was opposite.
- In sentence production task, DLD children mostly struggled with the usage of prime construction and made grammatical errors, which is in line with previous studies (Bedore & Leonard, 1998; Moscati et al., 2020). Moreover, 4 year old DLD children show the lowest lexico-semantic level in comparison with TD children (DLD - 41%, TD - 93%).
- In text comprehension task, DLD children had troubles answering implicit questions, possibly, because of their difficulties understanding contextual information (Bishop & Adams, 1992).
- As expected, the most difficult task for DLD children was narrative production: they had troubles with fluency, grammatical realization, and cohesion.

Sentence production



Narrative production



Method

- 175 TD and 63 DLD 4-to-7-year-old children participated in the study.
- Four tasks from the Russian Child Language Assessment Battery: comprehension sentence-picture-matching task, sentence production structural priming task; text comprehension task with two-alternative questions, narrative production task.



Stimuli examples in sentence comprehension task

References

1. Acosta-Rodríguez, V. A., de Groot, M., Rijo-Ferreira, F., Green, C. B., & Takahashi, J. S. (2017). Mice under Caloric Restriction Self-Impose a Temporal Restriction of Food Intake as Revealed by an Automated Feeder System. *Cell metabolism*, 26(1), 267–277.e2.
2. Bedore, L. M., & Leonard, L. B. (1998). Specific language impairment and grammatical morphology: A discriminant function analysis. *Journal of Speech, Language, and Hearing Research*, 41(5), 1185–1192
3. Bishop, D. V., & Adams, C. (1992). Comprehension problems in children with specific language impairment: Literal and inferential meaning. *Journal of Speech & Hearing Research*, 35(1), 119–129.
4. Dressler, W. U. (2012). On the acquisition of inflectional morphology: Introduction. *Morphology*, 22(1), 1–8.
5. Moscati, V., Rizzi, L., Vottari, I., Chilosi, A. M., Salvadorini, R., & Guasti, M. T. (2020). Morphosyntactic weaknesses in Developmental Language Disorder: the role of structure and agreement configurations. *Journal of Child Language*, 47(5), 909–944. Cambridge University Press.