

**10th Congress of  
Baltic States SLTs'**

# **Stronger together**

**10-11 April, 2026**



LATVIJAS LOGOPĒDU  
ASOCIĀCIJA  
*- par skaidru valodu*



10th Congress of  
Baltic States SLTs'

**Stronger together**

10-11 April, 2026



# Grammatical Errors in the Diagnosis of Language Impairment in Russian-Estonian Bilingual Children

Kristina Maria Morozov; MA  
Marika Padrik; PhD

Tartu University, Field of Social Sciences  
Institute of Educational Sciences, Tartu, Estonia



## SHORT INTRODUCTION

- The number of Russian–Estonian bilingual children is increasing and the group is highly heterogeneous
- Language impairment in bilinguals is **difficult to diagnose** (risk of under- and overdiagnosis)
- Assessment should focus on **language processing**, not just performance
- **Sentence repetition tasks** effectively reveal processing difficulties
- Research shows **differences in error quantity and quality** between TD and LI bilinguals (Meir et al., 2016; Meir, 2018; Padrik et al., 2022; Taha et al., 2021)
- Russian–Estonian error patterns remain **unexplored** but are important for diagnosis and intervention

\*(TD – typical development; LI– language impairment)





## OBJECTIVE(S) AND METHODS (1)

1. To identify the characteristic errors made by bilingual children with typical development and those with language impairment in sentence repetition tasks in both Estonian and Russian.
2. To find **cross-linguistic error patterns** that are characteristic of children with language impairment.

### THE SAMPLE

- 59 children aged 4 years 6 months to 6 years 11 months (31 biTD 28 biLI)
- All with at least two years of Estonian exposure.

(\*biTD – bilingual children with typical development  
\*biLI– bilingual children with language impairment)

### ANALYSIS

- Scoring performance
- Coding and double-coding errors
- Compiling frequency tables
- Calculating means and standard deviations
- Statistical differences between groups were tested using the Mann–Whitney U test.



## METHODS (2)

### PROCEDURE

- Individual testing in kindergarten rooms
- Animated presentation to maintain attention and motivation
- Children listen to each sentence once and repeat aloud
- Both the stimuli and the child's responses were audio-recorded on a computer

### TOOLS

**Estonian SRT (part of KaLaKe test battery; Vihman, Padrik & Hallap, 2022)**

**Russian LiTMUS - Russian - Short (Meir & Armon-Lotem, 2015)**



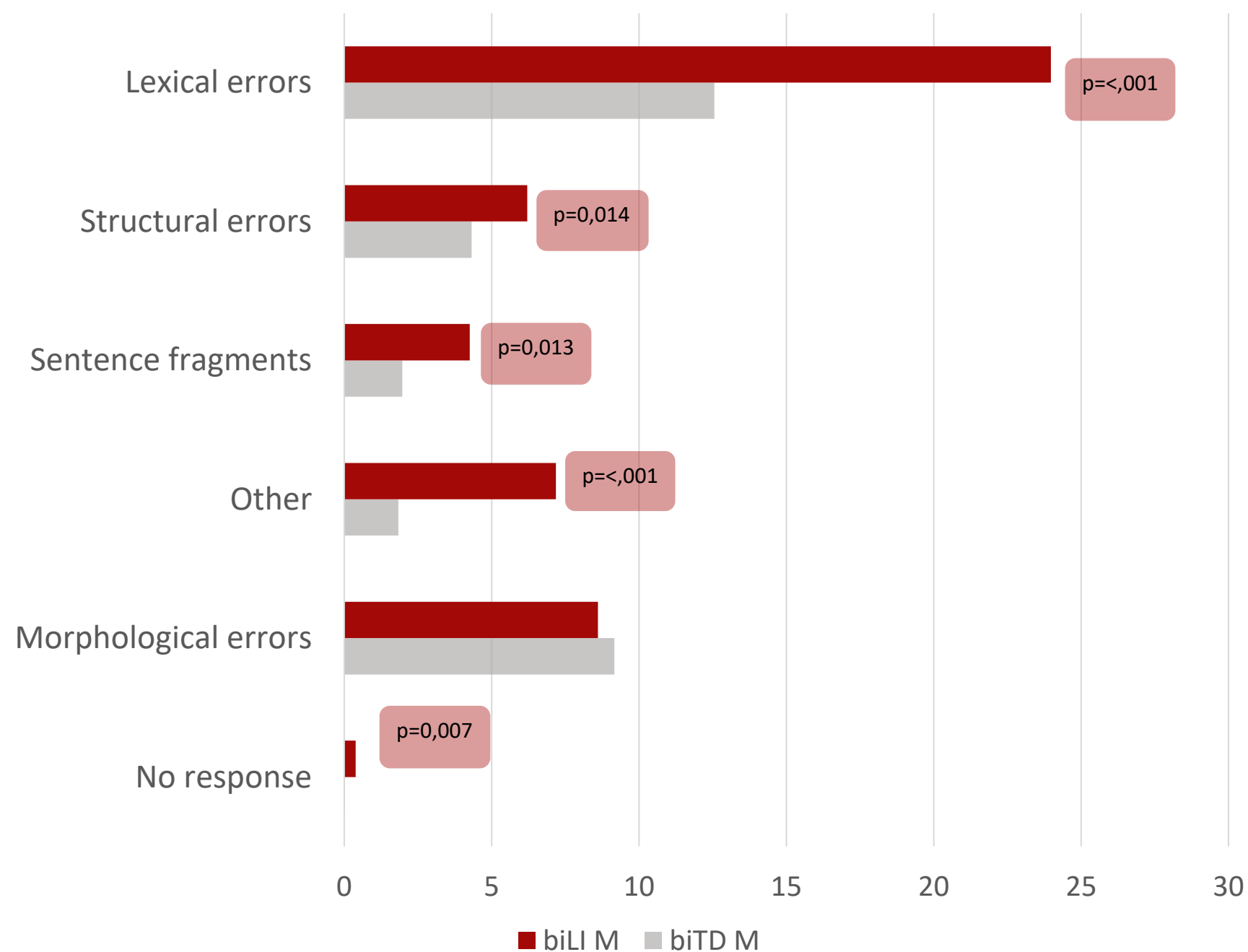
Animated bear illustration from the Estonian SRT  
(illustrator: Kaisa Kriisa)

- **Both tests are standardized and normed**
- 30 sentences per language, with age-appropriate length and complexity
- Includes **universally complex structures** (e.g., conditional – EST: *Kui tuba on korras, siis võib õue minna.* ENG: *If the room is tidy, then you may go outside.*, relative clauses – EST: *Toas on tugitool, mis läks eile katki.* ENG: *There is an armchair in the room that broke yesterday.*)
- Includes **language-specific challenging structures** for children with language impairment (e.g., adjective-noun agreement in Estonian – EST: *Tüdruk mängis pargis armsa sõbraga.* ENG: *The girl played in the park with a cute friend.*)



## RESULTS (1)

Results on the Estonian test



### Distinguishing errors in Estonian:

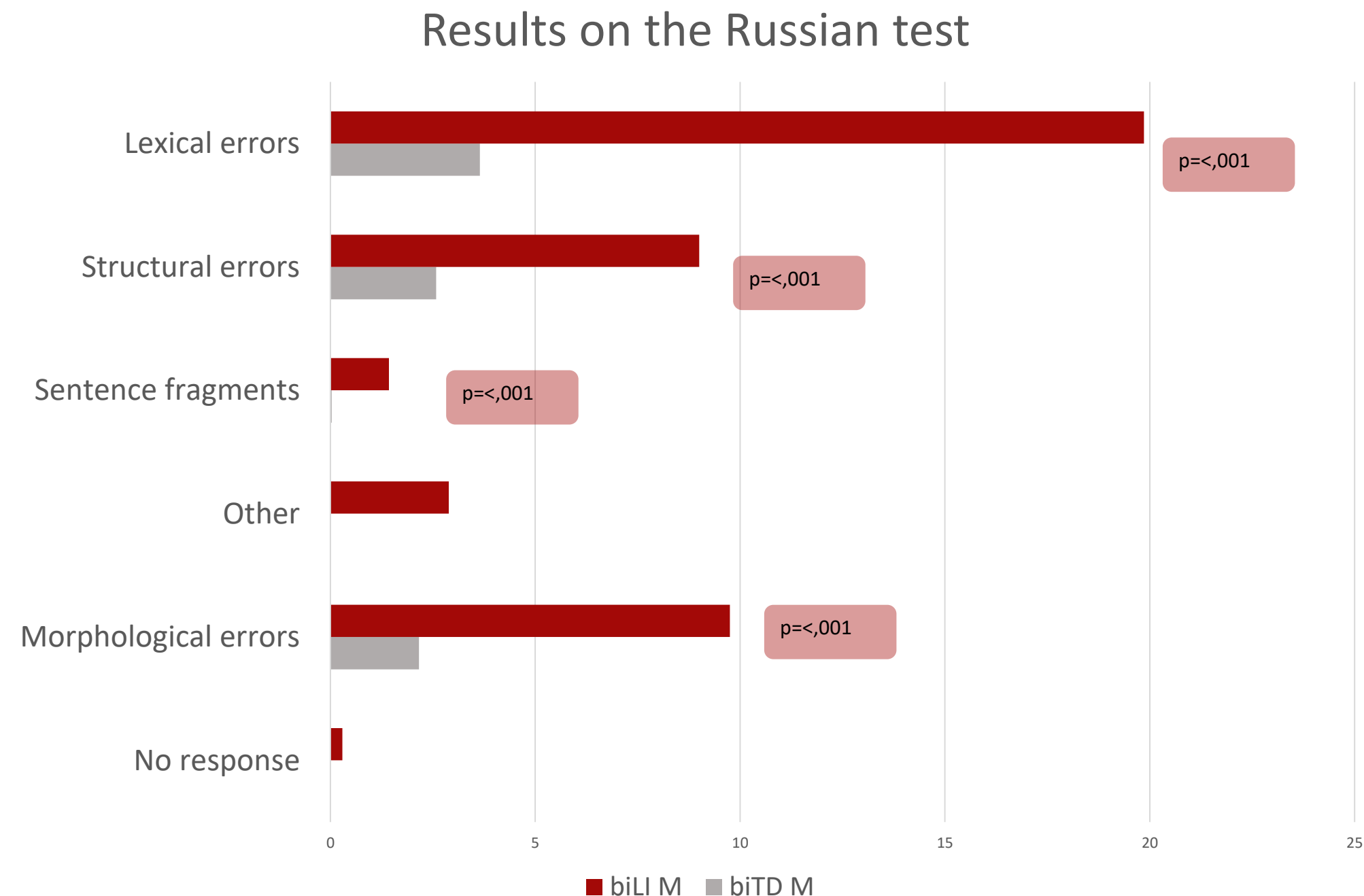
- **Simplification of sentence structures**, particularly omissions or substitutions of conjunctions in complex sentences. (e.g., EST: *Lasteaias on selline laps, oskab hästi laulda.* pro *Lasteaias on poiss, kes oskab hästi laulda.* ENG: *In the kindergarten there is such a child, can sing well.* pro *In the kindergarten there is a boy who can sing well.*)
- **Sentence fragments** (e.g., EST: *Uued issil.* pro *Täna on isal jalas uued kingad.* ENG: *New on daddy.* pro *Today father has new shoes on his feet.*)
- **The error type “other”** (e.g., EST: *Mida emme lastest kus?* pro *Mida ostis vanaema lastele poest?* ENG: *What mommy from the children where?* pro *What did grandmother buy for the children from the shop?*)

- Morphological errors **did not clearly differentiate groups**
- Substitutions were more common than simplifications for both groups (e.g., EST: *hommikud* pro *hommikul* ; ENG: *mornings* pro *in the morning*)



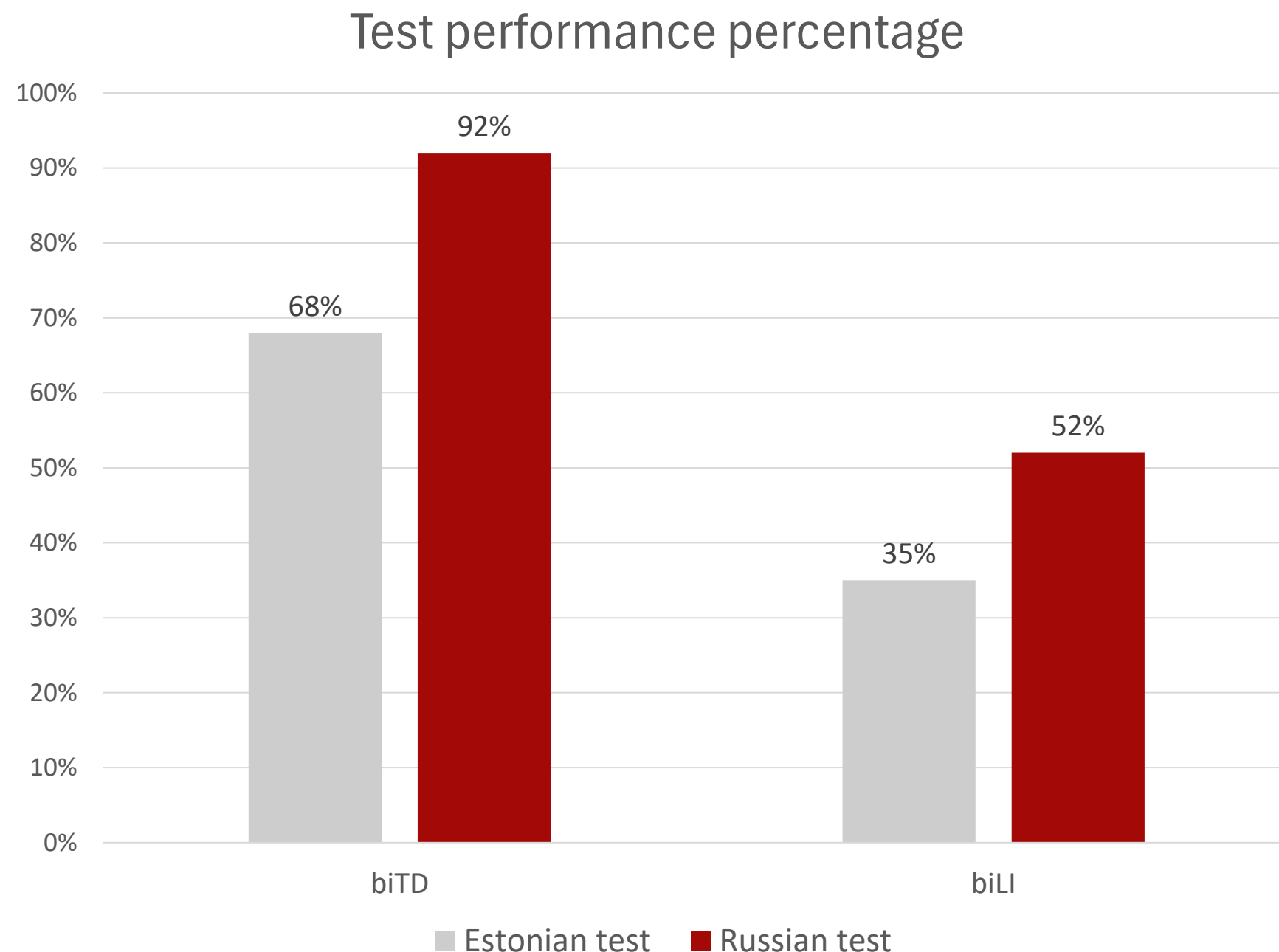
- **All error types distinguished groups in Russian test**
- **Morphological simplification** (omission of prepositions or use of simplified forms) was indeed more frequent in children with language impairment (e.g RUS: *Какой собаки убежала кошка?* pro *От какой собаки убежала кошка?* ENG: *Which dog did the cat ran away?* pro *From which dog did the cat run away?*)

## RESULTS (2)





## RESULTS (3)



- Typically developing bilingual children performed **significantly better** than children with language impairment
- **Error quantity** clearly distinguished the groups in both Estonian and Russian tasks

- **Cross-linguistic errors:** structural simplifications, fragmented sentences, and errors classified as “other”
- Cross-linguistic **differences:** morphological simplification is more characteristic in Russian, while substitution of forms is more typical in Estonian



## CONCLUSIONS

- Sentence repetition is a **reliable tool** for identifying language impairment
- Error patterns provide insight into language impairment mechanisms
- **Structural errors** (e.g., sentence fragments, simplified sentences) are **cross-linguistic** and typical of children with language impairment
- Another cross-linguistic error type is “other”, which includes **severe semantic and/or phonological distortions** that could not be classified under any other error category
- Morphological errors show language-specific variation
- Unique contribution: Russian–Estonian bilingualism cannot be studied elsewhere
- Results support improved diagnostics and interventions



## REFERENCES

- Castilla-Earls, A., Pérez-Leroux, A. T., Fulcher-Rood, K., & Barr, C. (2021). Morphological errors in Spanish-speaking bilingual children with and without developmental language disorders. *Language, Speech, and Hearing Services in Schools, 52*(2), 497– 511. [https://doi.org/10.1044/2020\\_LSHSS-20-00017](https://doi.org/10.1044/2020_LSHSS-20-00017)
- Meir, N., & Armon-Lotem, S. (2017). Delay or deviance: Old question—New evidence from bilingual children with specific language impairment (SLI). In *Proceedings of the 41st annual Boston University Conference on Language Development* (pp 495–508).
- Meir, N. (2018). Morpho-syntactic abilities of unbalanced bilingual children: A closer look at the weaker language. *Frontiers in Psychology, 9*, 1318.
- Meir, N., Walters, J., & Armon-Lotem, S. (2016). Disentangling SLI and bilingualism using sentence repetition tasks: The impact of L1 and L2 properties. *International Journal of Bilingualism, 20*(4), 421–452.
- Padrik, M., Vihman, V. A., & Fil, O. (2022). Identifying developmental language disorders in bilingual children: a pilot study for developing an Estonian sentence repetition task. *Eesti Haridusteaduste Ajakiri. Estonian Journal of Education, 10*(2), 305–333.
- Taha, J., Stojanovik, V., & Pagnamenta, E. (2021). Sentence repetition as a clinical marker of developmental language disorder: Evidence from Arabic. *Journal of Speech, Language, and Hearing Research, 64*(12), 4876–4899.