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When language betrays: aphasia from a linguistic perspective

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SHORT INTRODUCTION

- **Aphasia** is a speech and language disorder affecting the production, comprehension, and repetition of spoken language, acquired because of various brain lesions or progressive neurodegenerative diseases (Kemmerer, 2014).
- **Prognosis for recovery** depends on the severity, location, and extent of neural damage to the language processing system (Kiran & Thompson, 2019).
- **Large variability** in treatment response, even for similar language impairment profiles (Laganaro et al., 2006)
- **Lack** of linguistically and culturally appropriate treatment material (Goral et al., 2023)
- Aphasia **treatment must address specific features of the language** spoken by the PWA,

  however, 62% of studies based on English data, non-English aphasia is underrepresented (Beveridge & Bak, 2011)

OBJECTIVE(S) AND METHODS

The aim of this research is to examine the linguistic characteristics of motor and sensory aphasia in Lithuanian-speaking individuals following stroke.

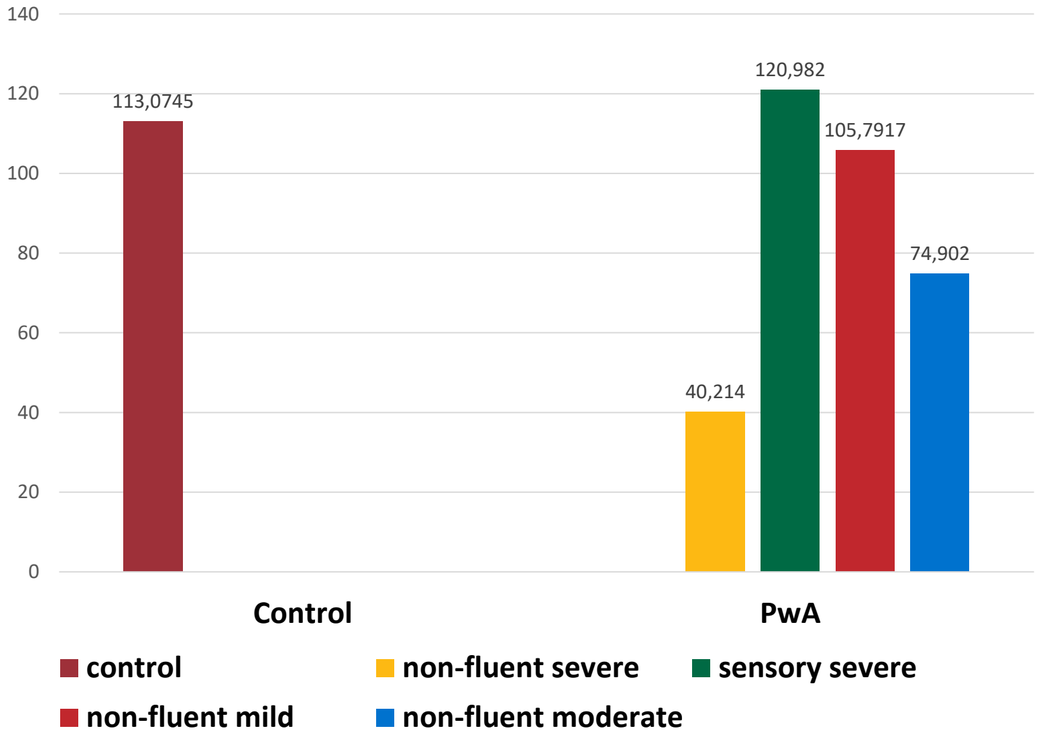
Objectives. (1) to collect examples of spontaneous aphasic speech; (2) to transcribe and code (CHAT protocol) audio-taped speech; (3) to annotate (Universal Dependencies (UD) standard) it; (4) to perform quantitative (CLAN program) and qualitative analysis.

Methods. Descriptive statistics and content analysis methods were employed.

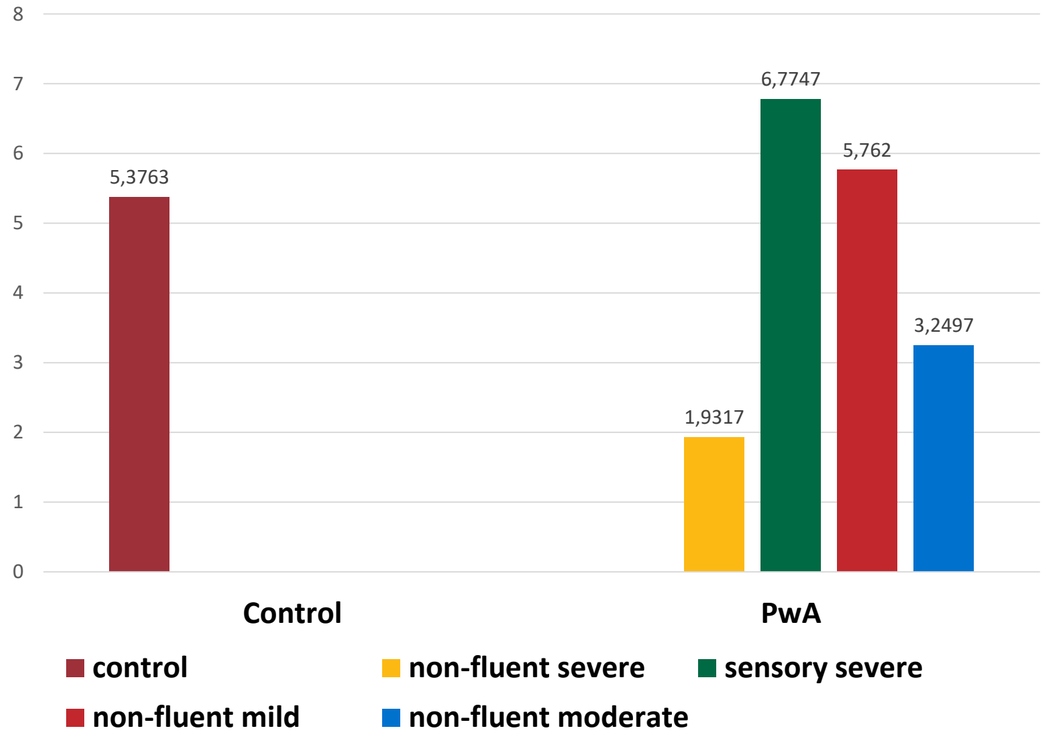
Research sample. *Participants* (PwA group): 4 individuals with aphasia (2 male, 2 female). *Inclusion criteria*: ≥3 months post-stroke, right-handed, native Lithuanian speakers. *Aphasia types*: significant motor, moderate motor, slight motor, and sensory. *Mean age*: 61 years (range: 19–84). *Control Group*: 4 individuals without aphasia, matched by age, gender, and education. *Total sample size*: N = 8

RESULTS (1)

Speech fluency (words per minute)



Mean length of utterance (words)

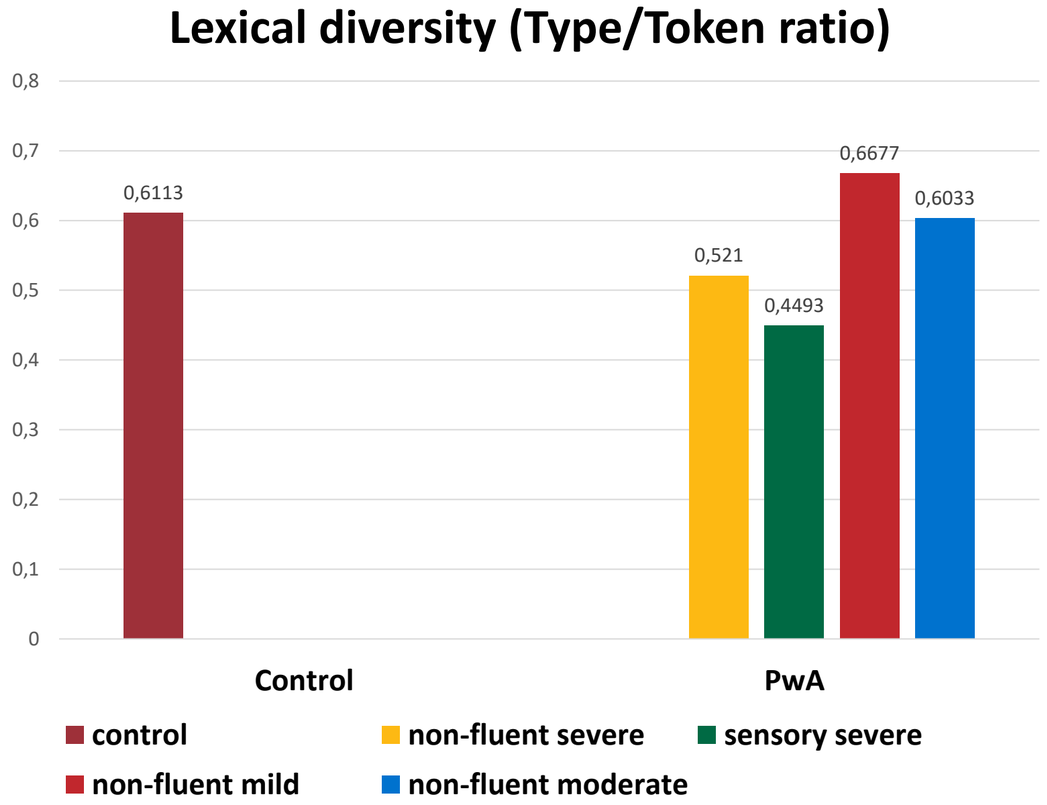


RESULTS (2)

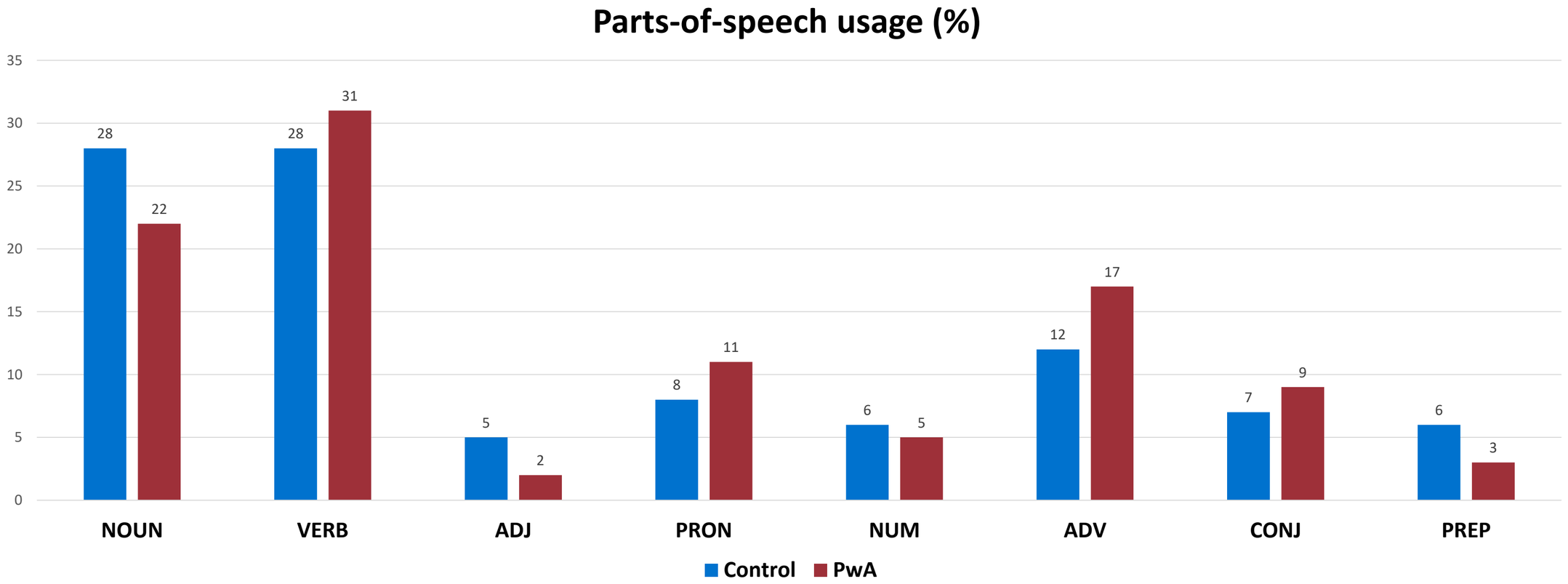
Lexical diversity indicates the richness of the vocabulary used.

The vocabulary index is calculated by dividing the unique words (Types) by all specific words (Tokens) used in that sentence.

The closer the index is to 1, the more diverse the words are.



RESULTS (3)


Parts-of-speech usage (%)
35
30
25
20
15
10
5
0
28
22
28
31
5
2
8
11
6
5
12
17
7
9
6
3
NOUN
VERB
ADJ
PRON
NUM
ADV
CONJ
PREP
Control
PwA

RESULTS (4)

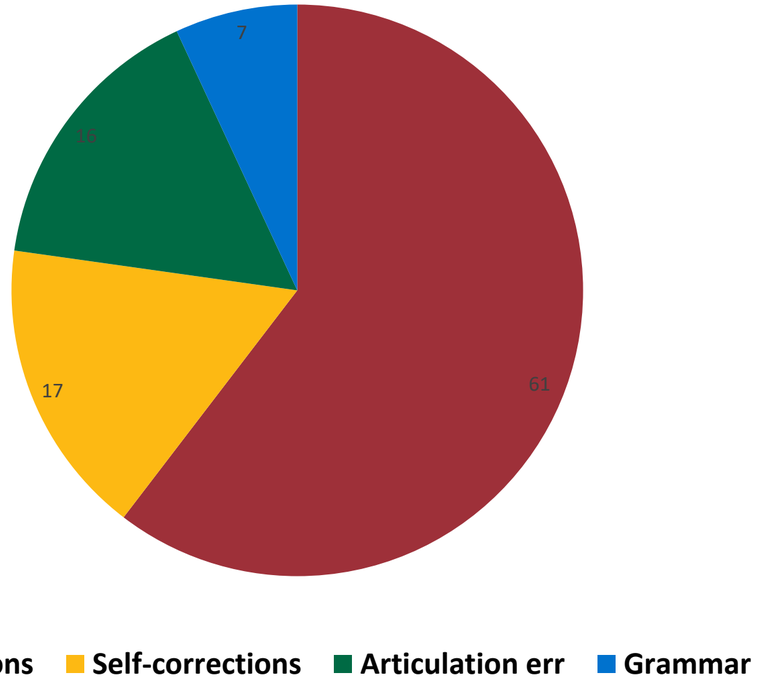
EXAMPLES OF ARTICULATION DISFLUENCES (16%)

- **pagrite [: pagrinde]** [*] sporto kanalus.
- nu **budau [: buvau]** [*].
- jums xxx **sunkriausias [: sunkiausias]** [*] vis toks
- kažko biškį turėtumėt **protingesniuot [: protingesnį]** [*] rad(ę) žmogų kuris daugiau suprastų aš sakau tik ištižus visai esu.
- kažkokia esu nu visai sakau norėčiau nor(s) **truplitėliau [: truputėlį]** [*] man gražiau pasakyti
- ne **nusšypsena [: nusišypsojo]** kažką ten paskui nu kad.

EXAMPLES OF GRAMMAR ERRORS (7%)

- **du [: dvi] [*] merginas** [: merginos].
- visiškai mano darbai nieko nedomina nes **visas [: visame] [*] pasaulyje [yra]** daug gražesnių
- kalba **su gyvuliukus [: gyvuliukais]** [*]
- o čia Pelenė ir vyras **šokt [: šoka]** [*]
- i [: ir] čia mama irgi matyt sako **kažkur [: kažką]** bet o kas ką ta mama irgi aš+vieso [: iš viso] nesuprantu
- **jas [: jos]** paliko ją [/] ją &-eh .

PwA: errors by type (%)



CONCLUSIONS

- Linguistic productivity differs by aphasia type and severity
- Motor aphasia is associated with shorter meaningful utterances
- Sensory aphasia may produce longer but less efficient speech (low verbosity index)
- Greater severity correlates with reduced lexical richness
- Frequent errors include repetitions, self-corrections, and phonological distortions
- Morphosyntactic difficulties involve errors in grammatical gender agreement, verb and preposition usage, and incorrect selection of verb tense.

REFERENCES

Beveridge, M. E. L., & Bak, T. H. (2011). The languages of aphasia research: Bias and diversity. Aphasiology, 25(12), 1451–1468. https://doi.org/10.1080/02687038.2011.624165

Goral, M., Norvik, M. I., Antfolk, J., Agrotou, I., & Lehtonen, M. (2023). Cross-language generalization of language treatment in multilingual people with post-stroke aphasia: A meta-analysis. Brain and Language, 246, 105326. https://doi.org/10.1016/j.bandl.2023.105326

Kemmerer, D. (2014). Cognitive Neuroscience of Language (1st ed.). Psychology Press. https://doi.org/10.4324/9781315764061

Kiran, S., & Thompson, C. K. (2019). Neuroplasticity of Language Networks in Aphasia: Advances, Updates, and Future Challenges. Frontiers in Neurology, 10, 423206. https://doi.org/10.3389/fneur.2019.00295

Laganaro, M., Di Pietro, M., & Schnider, A. (2005). What does recovery from anomia tell us about the underlying impairment: The case of similar anomic patterns and different recovery. Neuropsychologia, 44(4), 534–545. https://doi.org/10.1016/j.neuropsychologia.2005.07.005