

Informational and interactional dimension in the discourse by persons with acquired language disorders* (in “Russian CliPS” corpus)

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1. In the last decades there has been a growing interest to the studies of discourse in clinical populations: in persons with acquired language disorders due to focal brain damage or persons with psychiatric and neurodegenerative diseases. This ‘discourse approach’ can be attributed to the change of perspective from assessing separate linguistic skills in various disorders to the idea that communication skills should be assessed as a whole (Armstrong, 2000; Linnik, Bastiaanse, & Höhle, 2015).

On the other hand, investigation of language in clinical populations provides a chance to test models of discourse comprehension and production and investigate the correlation between linguistic skills on different levels.

This project is focused on evaluation of discourse abilities of people with aphasia (PWA) and right hemisphere damage (RHD) as compared to healthy speakers of Russian language. The study is based on the material of Russian CliPS corpus that contains retellings of the Pear Film produced by PWA and RHD, as well as healthy controls. The corpus is annotated on lexical and grammatical level, and has annotation of specific errors and disfluencies (Bergelson, Akinina, Khudyakova, Iskra, & Dragoy, 2015)

1.1. We investigate discourse samples in terms of its *informativeness*, *coherence* and *cohesion* using research methods proposed by various clinical linguists and discourse macrostructure in terms of genre grammars and story components. The goal here is to find the best measure to distinguish specific deficits on discourse level of people with aphasia and RHD and to find the correlation between informativeness, coherence levels, cohesion errors and planning, and different syndromes. The results also prompt comparison with correlations between the syndrome type and specific breakdowns on the macro level of discourse.

Analysis of discourse macrostructure in terms of genre grammars is a tool to investigate the evaluative, interactive and meta-narrative components of discourse and their relation to the impairment type, personal strategies, and context of storytelling.

2. Microlinguistic abilities of aphasic speakers are usually addressed through the following measures: number of utterances, mean number of clauses per utterance, proportion of agrammatic clauses, mean length of utterance, proportion of nouns, pronouns and predicates. It was shown (see for example Andretta, Cantagallo, & Marini, 2012; Bergelson, Dragoy 2009, 2010) that the discourse microstructure is more impaired in non-fluent speakers: their utterances are fewer, shorter, less accurate, and contain few pronouns that are the means of local coherence. Macrolinguistic measures include story component scheme and its variables, such as Story world and Non-Story World clauses, the former being divided into Main Line Story Event clauses and Durative-Descriptive clauses. Non-Story World clauses refer to Evaluations - linguistic means

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that make it clear to the listeners which circumstances and events are crucial for the point being made - and verbal interaction between the storyteller and the interviewer.

3. The interaction components are annotated as a separate annotation layer. Everything that pertains to the world of storytelling where the speaker interacts with the listener is regarded as interaction, namely: fillers, word search, false starts, feedback markers, appellations to the listener, repetitions, and other discourse markers. Interaction components can occur both within the clause (e.g., *let's call the boy Vovochka*, where *let's* is an element of interaction within a descriptive clause) or comprise a separate clause (e.g., *if you say so*).

Preliminary results show that there exist correlations between the prevalence of specific types of interactional elements and type of disorder. This data is checked against the interactional strategies used by the healthy speakers in the same experiment, which brings into comparison additional factors, such as situational context, personal goals, social distance and others.

The quantitative results that presented in the paper will be discussed as to their application both to clinical linguistics and discourse studies.

References:

- Andretta, S., Cantagallo, A., & Marini, A. (2012). Narrative discourse in anomic aphasia. *Neuropsychologia*, 50(8), 1787–1793. doi:10.1016/j.neuropsychologia.2012.04.003
- Armstrong, E. (2000). Aphasic discourse analysis: The story so far. *Aphasiology*, 14(9), 875–892. doi:10.1080/02687030050127685
- Bergelson, M. B., Akinina, Y. S., Khudyakova, M. V., Iskra, E. V., & Dragoy, O. V. (2015). Pear Stories by Russian speakers with aphasia. In *CEUR Workshop Proceedings. Vol-1419. Proceedings of the EuroAsianPacific Joint Conference on Cognitive Science (EAPCogSci 2015)* (p. 15).
- Bergelson, Mira, Dragoy, Olga. Inefficient Fluent and Efficient Non-fluent: A dissociation between micro- and macrostructure of aphasic discourse. Proceedings of the Science of Aphasia Xth Conference, Turkey, October 2009.
- Bergelson, Mira, Dragoy, Olga. Telling a Story or Describing a Picture: Cognitive Differences and Similarities across Aphasic and Normal Speakers. Proceedings of the Fourth International Conference on Cognitive Science Tomsk, Russia, June 22-27, 2010.
- Linnik, A., Bastiaanse, R., & Höhle, B. (2015). Discourse production in aphasia : a current review of theoretical and methodological challenges, 7038(December). doi:10.1080/02687038.2015.1113489