Interactional dimension in the discourse by persons with acquired language disorders

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. Thus concentrating on narratives and dialogues, as well as procedural discourse, as the most important genres of discourse for everyday life. 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.

The proposed research will focus 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 will be 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.

The proposed research will investigate such properties of discourse as informativeness, coherence and cohesion using research methods proposed by various clinical linguists as a method of evaluating discourse. Our goal 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 different syndromes.

Another focus of research is the prosodic component of speech, which is known to be impaired in people with Broca's aphasia and RHD. Precise prosodic analysis of the narratives will support or deny that claim.

Analysis of discourse macrostructure in terms of genre grammars is a tool to investigate the evaluative, interactive and metanarrative components of discourse and their relation to the impairment type, personal strategies, and situation type. Also analysis of expression of empathy will be carried out to test the claim that people with RHD have impairments of empathy. The proposed project will be the a significant contribution both to clinical linguistics and discourse studies.

Microlinguistic abilities of aphasic speakers were addressed through the following measures: number of utterances, mean number of clauses per utterance, proportion of agrammatic clauses, mean length of utterance, proportion or nouns, pronouns and predicates. As predicted, the discourse microstructure was more impaired in non-fluent speakers: their utterances were fewer, shorter, less accurate, and contained few pronouns that are the means of local coherence. Macrolinguistic measures included story component scheme and its variables, such as Storyworld and Non-StoryWorld clauses, the former being divided into Main Line Story Event clauses (semantically non-iterative, non-habitual and temporarily bounded), and Durative-Descriptive clauses (states of affairs which persist over some interval of time in the discourse rather than occurring at one discrete instant in the discourse world). Non-Story World clauses refer to Evaluations (linguistic means that make it clear to the listeners which circumstances and events are crucial for the point being made (Polanyi, 1989)) and verbal interaction between the storyteller and the interviewer. Evaluations (including Coda) provided more insight as regards the goals of this study, while verbal interaction clauses reflecting (inter)personal dynamics were set aside for further research.

Macro-linguistic level. Two perspectives of analysis were taken to investigate the macro-linguistic level of the texts: the story component analysis and the genre analysis. The story component analysis was mainly inspired by (Labov, 2008; Polanyi, 2003) and was performed at the clause level. Each clause was classified by an expert as a story event (or main line) clause, descriptive clause, evaluation clause or other. The annotation was verified by the second expert; in questionable cases the consensus between two experts was reached. The story event clauses could refer to either actual events in the world of narration (event predicates, actions of the heroes etc. - 'the cat reached for the food') or epistemic quasi-events (speech and mental activities of the characters - 'the boy is making excuses'). The descriptive clauses were defined as background information for the events in the world of narration; the contents of the speech and mental acts of the characters framed as direct or indirect speech also fell into this category. The evaluation clauses described the world of the narration from the point of view of the speaker, in other words, they could express his emotional, deontological, epistemological or other evaluation of the elements of the story. The category "other" was comprised of onsets and codas. The interaction components were also annotated in the clauses. Everything that pertained to the level of interaction between the speaker and the listener was regarded as interaction components, namely: fillers, word search, false starts, feedback markers, appellations to the listener, repetitions, and other discourse markers. Mind that interaction components could be 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 appear as a separate clause (e.g., 'if you say so').