Aphasia, an impairment of language caused by injury to the brain, is a burning issue in our society due to its negative impact on quality of life. Aphasia research has aimed to explain language impairment in aphasia drawing on linguistic theory and research findings. Recently, we can observe an increase in analyses of aphasic discourse, that is of units of text larger than a single sentence used to fulfill specific communicative goals, such as telling a story, expressing an opinion or describing a procedure. Following the recommendations of the International Classification of Functioning, Disability and Health (ICF), research has to date focused on descriptions of aphasic discourse, discourse treatment and discourse measures/analysis methods. The present project will contribute a new data to the current debate on the impact of impairment in the use of vocabulary and grammar (micro-linguistic level) on the delivery of meaning (macro-linguistic level). The project will concern mixed aphasia, the most common aphasia type diagnosed in clinical settings, yet rarely investigated in this context, and will draw data from the Polish language. Issues of cohesion and coherence, that is how well sentences are glued together and connect to the main topic, in texts produced by Polish speakers diagnosed with aphasia have not been addressed sufficiently.

The project therefore aims to study the discourse of Polish-speakers with mixed aphasia to: 1) describe and measure the linguistic devices and patterns of cohesion; 2) develop a Polish adaptation of an internationally used local and global coherence assessment scales; 3) investigate the relationship between the micro- and macro-linguistic aspects of discourse; 4) explore the impact of mixed aphasia on discourse cohesion and coherence, and 5) investigate the relationship between discourse type and linguistic cohesion and coherence.

The research participants will be 20 patients with the diagnosis of mixed aphasia with a motor component, 20 patients with mixed aphasia with a sensory component and 20 brain-healthy patients for comparison. The aphasic patients will be matched one-to-one on age, gender and education level with brain-healthy individuals to enable comparisons. An internationally established data gathering protocol will be used to collect audio recordings of the different types of discourse. The recordings will be transcribed orthographically and analysed using several descriptive and statistical methods to explore and measure relationships between the results of the various analyses.

The proposed project is innovative and timely. Firstly, it will contribute much-needed evidence to verify our current knowledge on the relationship between the micro- and macro-linguistic aspects of aphasic discourse. Secondly, the research will involve participants diagnosed with mixed aphasia, an aphasia type rarely investigated in the context of discourse research. Thirdly, it will provide new evidence on aspects of cohesion and coherence of Polish aphasic discourse, so far absent in the literature. These project innovations will allow to advance linguistic knowledge and make significant contributions to the applied discipline of aphasiology. Also, popular coherence measuring scales will be translated into Polish, adapted and validated, equipping Polish aphasiologists and speech pathologists with a new research/clinical tool. The source data will be made available internationally through the AphasiaBank database (https://aphasia.talkbank.org).