The main goal of this project is to examine how changes in word order in Polish affect syntactic phenomena related to coreference. More specifically, we will investigate the role of discourse categories such as givenness and focus associated with a given word order in the interpretation of coreferential reading between a pronoun and its antecedent. Our first goal will be to establish the contexts under which different word orders in Polish are licensed given the relative freedom of word order in that language. As the next step, we will test the availability of coreferential reading between a pronoun and its antecedent in various contexts with (possessive) cataphora (1)-(2), weak and strong crossover (3)-(4), and variable binding (5)-(6). Coreference with possessive cataphora has been shown to be affected by focus marking, i.e. removing focus from 'John' in (1b) makes the coreference more acceptable and so does deaccenting 'Tomek' by moving it to a preverbal position in Polish (2b). The same effect of focus/word order is observed for crossover (3b) and (4b) and variable binding (5b) and (6b). The result of this endeavor is expected to indicate whether these phenomena are purely syntactic, i.e. they are subject to syntactic constraints on coreference, or whether coreference is established post-syntactically. Additionally, for those phenomena which involve filler-gap dependencies, i.e. crossover and cataphora, we will examine if factors related to processing contribute to availability of coreferential reading. Since gradience in acceptability of such complex sentences has long been attributed to processing factors, as such sentences pose a challenge to the comprehenders' working memory, we decided to test if this is also the case for cataphora and crossover. Under this assumption, facilitating retrieval of the filler by making it more informative should result in faster processing of these structures and should ameliorate coreference.

(1) a. As for John, who does his wife really love? ?*His$_1$ wife loves JOHN$_1$.	b. As for John, I believe his wife hates him. You're wrong: His$_1$ wife LOVES John$_1$.
(2) a. *Jego$_1$ mama nie krzywdzi Tomka$_1$. his mother$_{NOM}$ not harms Tomek$_{ACC}$	b. Jego$_1$ mama Tomka$_1$ nie krzywdzi. his mother$_{NOM}$ Tomek$_{ACC}$ not harms '*His mother does not harm Tomek*.'
(3) a. ?*/??Who$_1$ did his$_1$ mother praise t$_1$?	b. ?Who$_1$ did even his$_1$ mother praise t$_1$?
(4) a. ??[Którego sąsiada]$_1$ jego$_1$ żona otruła which neighbor$_{ACC}$ his wife$_{NOM}$ poisoned	b. [Którego sąsiada]$_1$ otruła jego$_1$ żona. which neighbor$_{ACC}$ poisoned his wife$_{NOM}$ '*Which neighbor$_1$ did his$_1$ wife poison*?' (intended)
(5) a. * In every dog$_1$'s cage its$_1$ collar hung.	b. In every dog$_1$'s cage hung its$_1$ collar.
(6) a. ??/*Każdego$_1$ jego$_1$ matka kocha. everyone$_{ACC}$ his mother$_{NOM}$ love	b. ?Każdego$_1$ kocha jego$_1$ matka. everyone$_{ACC}$ love his mother$_{NOM}$

We will test the above assumptions in a series of psycholinguistic experiments, which will include off-line acceptability judgement (AJ) and (online) self-paced reading (SPR) experiments. Acceptability responses will be measured on a 7-point Likert scale where the task will be to listen to a dialogue and assess the target sentence or its interpretation under a specific context. The goal of these AJ questionnaires will be to test the effect of context on acceptability of different word orders, as well as the effect of word order on the interpretation of coreferential reading. Our SPR experiments will measure reading times of sentences with cataphora and crossover. We will use the gender mismatch paradigm commonly used in testing coreference in these structures, whereby a slowdown is expected for these antecedents ('John' in (1b)) that do not match in gender with the cataphoric pronoun.

This project aims to investigate the structures whose unacceptability has been attributed to syntactic constraints, and whose analyses were originally devised for English and were later adopted for other languages including Polish. These analyses, developed mostly within generative grammar, tend to overlook other factors that may have a significant effect on the acceptability status of these structures. As shown above, coreference seems to be affected by focusing and deaccenting (backgrounding) which make the antecedent more salient for the pronoun. In free word order languages, this effect can be achieved by manipulating word order. Using multi-factorial design, we will test the effect of these non-syntactic factors, which will enable us to verify the previously proposed syntactic hypotheses. This could lead to rethinking coreference and syntactic constraints that are claimed to govern it. This endeavor, however, will commence with a detailed investigation into word order in Polish and its relation to discourse functions, which will lie a foundation for further investigation into coreference. On their own, the issues related to word order in Slavic languages have generated considerable interest in the recent theoretical as well as experimental syntax, but so far, Polish word order data obtained experimentally are scarce.

The results obtained in the planned experiments will significantly contribute to the understanding of how coreference in Polish is established and what affects coreferential readings. They will provide a fine-grained description of extra-syntactic factors that contribute to acceptability of coreference in the well-known structures like cataphora, crossover, and variable binding. Conclusions drawn from the collected data will have an impact on syntactic explanations of these structures, by potentially excluding some of the previously proposed solutions.