On the impact of context on the processing of imperfective aspect in Polish: Evidence from self-paced reading and eye-tracking during reading experiments

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Abstract:

In this talk, I will present the results of a series of reading time experiments in which we investigated the processing of grammatical aspect in Polish (with a special focus on imperfective aspect). Imperfective aspect is cross-linguistically multiply ambiguous and it is used in contexts referring to single ongoing eventualities, iterative eventualities, habits, generalizations over events (Arregui, Rivero and Slanova 2012; Deo 2009, 2015 and to appear). Languages differ in the range of possible readings of imperfective but the two most standard meanings of imperfective aspect cross-linguistically are: **single ongoing** and **plural event** readings.

In our earlier reading time experiments (see Klimek-Jankowska, Czypionka, Witkowski, and Błaszczak 2018), we compared the time-course of processing of sentences with perfective and imperfective intransitive verbs in Polish in neutral contexts and we observed that reading measures were significantly longer on sentence final regions in the latter case. Based on this observation, we concluded that in the absence of any disambiguating contextual cues, the parser delays the process of interpretation of imperfective aspect in Polish, which provided support for the underspecification approach to imperfectivity. In our recent experiments, we investigated the time-course of processing Polish imperfective verbs in contexts with: (i) a preverbal adverb *wczoraj* 'yesterday' creating a preference for the episodic meaning, (ii) a frequentative adverb *często* 'frequently' cueing the plural event meaning and (iii) a neutral adverb such as *szybko* 'quickly' or *wolno*, 'slowly', which does not favor any of the possible meanings of imperfective verbs. We additionally manipulated the grammatical number of NP objects of imperfective verbs, as shown in Table (1).

Table 1: Presentation of the factors to be manipulated in the study

	NP-OBJECT	
CONTEXT	**Singular**	**Plural**
episodic *Piotr* **wczoraj** *montował* Peter yesterday installed.impfv	**tłumik** silencer	*tłumiki* silencers
frequentative *Piotr* **często** *montował* Peter frequently installed.impfv	*tłumik* silencer	**tłumiki** silencers
Neutral		

Piotr ***powoli*** *montował*	*tłumik*	*tłumiki*
Peter slowly installed.impfv	silencer	silencers

The goal of our study was: (i) to understand how early the parser commits to a single ongoing or plural event meaning of imperfective aspect depending on whether disambiguation cues are present in a preverbal context and (ii) to investigate the impact of grammatical number of NP objects of imperfective verbs on their interpretation in contexts with and without preverbal disambiguation cues.

In this talk, we provide evidence in favor of the view that imperfective aspect is underspecified for number. More specifically, we propose a *Gradual Probabilistic Model of Parsing Imperfective Aspect,* where imperfective aspect is added to the representation with an empty slot to be gradually specified for number (VPsg or VPpl). The specification process is activated immediately when the parser encounters an imperfective verb and it is based on probabilistic information including discourse context, conceptual knowledge, frequency of meanings, lexical information with the grammatical number of the NP object being one of the key factors creating a preference for either a single or plural event reading of imperfective verbs.