

The grammaticality of aspect in Hungarian

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Background. Verbal prefixes (particles, preverbs) in Hungarian have been argued to function as perfectivizers similar to Slavic prefixes (e.g. Soltész 1959; Piñón 1995; Kiefer 2006; É. Kiss 2006; Ladanyi 2015). However, an empirical study of the former does not seem to be available yet. In Slavic, aspect is a grammatical category of the verb, which at the same time involves derivational processes. Various accounts of different theoretical orientation have been proposed for this aspect type (e.g. Lehmann 2009; Wiemer 2008; Filip 2012; Biskup & Zybatow 2015), involving derivational prefixes and suffixes: simple verbs are imperfective and can be perfectivized by a prefix. However, this prefix does not only change the aspectual value of the verb, but affects its lexical meaning. A derived prefixed verb, in turn, can form an imperfective partner by adding a suffix.

Aim of the study. In order to investigate the systematicity of aspect marking in Hungarian, a parallel corpus of Russian, Czech, and Hungarian based on subtitles was used in this study. Since aspect marking can be considered grammatical in Slavic, a direct comparison with Russian (East Slavic) and Czech (West Slavic) can shed more light upon the nature of aspect in Hungarian. It is important to look at both East and West Slavic, because they differ considerably in the way aspect is expressed (Dickey 2000; Wiemer 2008). A parallel corpus ensures that the verb forms analyzed in the three languages refer to the same situation, i.e. their semantics is controlled for. This is crucial for investigations on aspect, since (lexical) actional features of the verb (its "Aktionsart"), which can depend on the context of a given lexeme, interact with the choice of aspectual values and their compatibility with the verb.

Methodology. The study is based on a parallel corpus of Russian, Czech, and Hungarian from the ParTy corpus using subtitles (Levshina Forthc.). 1000 sentences were extracted from the movies "Black Swan", "Avatar", "Noah", "Frozen", and "Inception". From those, 638 sentences in each language with verbs of sufficient semantic similarity were selected and manually annotated for (i) lexeme, (ii) perfectivity, (iii) actional class (following Breu 1994), (iv) tense, (v) mood, (vi) negation, (vii) presence of an accusative object, (viii) presence of a prefix, (ix) presence of a perfectivizing prefix.

Results. Looking at the distribution of the presence/absence of the verbal particle in Hungarian, it proved to be similar to the one of perfectives/imperfectives in Slavic. Using a generalized linear mixed effect model for the data of the three languages, the following five factors manifested significance in predicting the aspectual value: actionality, tense, mood, presence of the prefix, presence of a perfectivizing prefix. Conditional randomized forests (1) for Hungarian, Czech, and Slavic showed that in all three languages, the main predictor is actionality of the verb. In Czech, tense proved to be almost equally important, while it was less relevant in Russian, where the presence of a prefix had a greater impact. In both Slavic languages, in addition to these predictors, mood was also a relevant predictor. In Hungarian, on the other hand, the main predictors for aspect marking were actionality and the presence of a perfectivizing prefix, and, to a lesser extent, tense. This suggests that aspect in Hungarian roughly depends on similar factors as in Slavic. However, the similarity for the three languages based on the Euclidean distance of all factors (2) clearly shows that Hungarian differs significantly from both Czech and Russian in its aspect marking.

Concluding remarks. Using a parallel corpus, this study investigates the status of aspect in Hungarian with respect to West (Czech) and East (Russian) Slavic. It provides new empirical insights to the ongoing theoretical question of aspect being part of the Hungarian grammar: aspectual values can be predicted with respect to the actional properties of the verb and the occurrence of the verbal particle. In that, it is comparable to Slavic to a certain extent, the crucial difference being that the Slavic system interacts more with other verbal categories, i.e. tense and mood. This makes the Hungarian system less complex, but shows that verbal prefixation plays a major role in expressing aspect in the language.

(1) *Conditional variable importance*

a. Hungarian							
negation	acc	mood	pres.pfx	tense	perf.pfx	actionality	
-0.00005	0.00029	0.00080	0.00186	0.00797	0.0435	0.07679	

b. Czech							
negation	acc	perf.pfx	mood	pres.pfx	tense	actionality	
0.00033	0.00097	0.00385	0.01720	0.04976	0.05272	0.05477	

c. Russian							
negation	acc	perf.pfx	mood	tense	pres.pfx	actionality	
-0.00008	0.00326	0.02338	0.03279	0.04756	0.10121	0.12342	

(2) *Euclidean distance*

	CZ	HU
HU	269.9444	
RU	123.2153	249.4754

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