

The theses of the dissertation

**TOWARD A SCALAR SEMANTIC ANALYSIS OF
TELICITY IN HUNGARIAN**

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I. The objectives of the dissertation

This dissertation is aimed at characterizing the telicity of Hungarian dynamic verbal predicates expressing change in neutral sentences, i.e. sentences that do not contain a focused element or negation. The theoretical framework that is assumed in this work is Beavers's (2012) homomorphism-based, figure-path relations model. First, the dissertation reviews Verkuyl's (1993) and Tenny's (1994) theories since both are important predecessors to more recent scalar semantic analyses, which are also addressed in later sections. Next, it describes Krifka's (1989, 1992, 1998) mereological approach to lexical aspect by first comparing and contrasting cumulative NPs and atelic verbal predicates (cf. cumulative *water*, cumulative *books* and atelic *John ran*, atelic *John walked in the garden*) and quantized NPs and telic verbal predicates (cf. quantized *a glass of water*, quantized *a book* and telic *John ran to the station*, telic *John broke a vase*). Then, a general overview is provided of the part structures that model the extension of predicates and the different types of homomorphisms (e.g. *Strict Incremental Relation*, *Incremental Relation*, *Strict Movement Relation*, *Movement Relation*), which are encoded by the head verbs of various verbal predicates. The second part of this literature review is devoted to the description of the more recent scalar semantic analyses of telicity of Hay et al. (1999), Kennedy and Levin (2008), Rappaport and Levin (2010), and Rappaport Hovav (2012). Finally, a detailed discussion of Beavers's (2012) figure-path relations model is presented, in which several examples from English show that this model supercedes its predecessors regarding its predictive power.

The novel scalar semantic analysis of the dissertation is also preceded by a review of some facts of the Hungarian grammar, which has been written for two main reasons: On the one hand, it gives a brief insight into the structure of the Hungarian sentence based on É. Kiss (2002) in order to help the reader interpret the Hungarian data in later chapters. The topic-predicate articulation of the Hungarian sentence, verbal particles, focusing, and negation are addressed in this part. On the other hand, this overview argues for the idea that situation (lexical) aspect and viewpoint (grammatical) aspect are to be treated as independent categories both in English (cf. Smith 1997) and in Hungarian (cf. Csirmaz 2008). As for the Hungarian data, two telicity tests are also discussed and the types of telic predicates that are observable in this language. The latter discussion is based on É. Kiss (2008).

Aspectual composition in Hungarian is examined mainly within the domain of degree achievements (e.g. *melegszik* 'warm', *hűl* 'cool', *szélesedik* 'widen', *rövidül* 'shorten') and creation/consumption predicates (e.g. *épít egy házat* 'build a house', *ír egy levelet* 'write a

letter', *eszik egy almát* 'eat an apple', *iszik egy pohár sört* 'drink a glass of beer', *olvas egy cikket* 'read a paper', *tanul egy verset* 'learn a poem'). The dissertation makes claims about the peculiarities of the mechanisms that yield telic predicates and about the semantic role of aspectually relevant elements in both English and Hungarian. Further evidence is provided in favor of the main claims in Chapter 6 of the thesis where the aspectual facts of achievements (e.g. *el-tört egy vázát* 'PRT-broke a vase', *el-érte a hegycsúcsot* 'PRT-reached the hilltop', *meg-halt a szomszéd* 'the neighbor PRT-died', *el-felejtett egy jelszót* 'PRT-forgot a password') and accomplishments expressing motion and change of state (but not creation/consumption) (e.g. *a konyhába futott* 'ran to the kitchen', *el-sétált* 'PRT-walked away', *pirosra festett egy kerítést* 'painted a fence red', *ki-súrolt egy kádat* 'PRT-wiped a tub') are examined.

The dissertation is a novel contribution to research for the following five reasons: (i) the analysis of telicity that this work proposes has the potential to account for the aspectual behavior of all dynamic predicates of change in Hungarian; (ii) its theoretical presuppositions are a happy confluence of some of the presuppositions of the homomorphism-based model of Krifka (1989, 1992, 1998) and of some crucial facets of a more recent scalar semantic approach (cf. Hay et al. 1999, Kennedy and McNally 2005, Kennedy and Levin 2008), which is a pioneering effort in the field of semantic research; (iii) it draws parallels between typologically different languages (cf. Hungarian, English, and Slavic languages) and highlights the similarities and differences that are observable in these languages when it comes to the encoding of telicity; (iv) it pays great attention to the characterization of aspectual composition and particle variability within the domain of degree achievements, which is a rather novel attempt in Hungarian aspectual research; (v) it employs formal means to characterize the scalar structure of creation/consumption predicates, from which various aspectual properties follow both in English and in Hungarian.

The main objectives of the dissertation are fourfold:

- (1) To describe the (a)telicity of Hungarian dynamic verbal predicates of change in a scalar semantic framework that assumes homomorphic, figure-path relations between the part structure of the incremental theme arguments (i.e. the figure argument and the path) and the part structure of the event argument. A crucial claim of the analysis is that telicity obtains just in case the figure and the path have specific, well-definable properties such that the figure is quantized and the path is bounded (Beavers 2012).

- (2) To characterize the linguistic elements that are necessary for the telic reading of verbal predicates in English and Hungarian, while focusing on the aspectual differences between the two languages.
- (3) To provide a motivated explanation for the following facts: In the case of Hungarian creation/consumption predicates, a quantized figure argument can give rise to telicity without a particle or resultative expression, just like in English. (cf. telic *evett egy almát* 'ate an apple' and telic *ate an apple*; telic *ivott egy üveg bort* 'drank a bottle of wine' and telic *drank a bottle of wine*). In other predicate classes the quantized nature of the figure argument is not sufficient for a telic interpretation. Instead, a particle, a resultative/locative XP or a quantized measure expression is necessary for telicity to obtain (cf. atelic *festett egy kerítést* 'painted a fence' and telic *be-festett egy kerítést* 'PRT-painted a fence'; atelic *festett egy kerítést* 'painted a fence' and telic *pirosra festett egy kerítést* 'painted a fence red'; atelic *futott* 'ran' and telic *futott 5 métert* 'ran 5 meters').
- (4) To provide an account of the semantic role of aspectually relevant verbal particles in Hungarian in a way that the aspectual behavior of such particles can be compared to that of verbal prefixes in, for instance, Slavic languages. Furthermore, it is also an important objective to propose a unified analysis of particles, resultative/locative expressions, quantized measure/scalar phrases, and quantized created/consumed themes (i.e. telicizing elements in Hungarian).

II. An overview of the theoretical background

The immediate theoretical background is Beavers's (2012) figure-path relations model, in which it is assumed that the aspectual structure of dynamic predicates of change is determined by the quantized nature of the figure argument (i.e. the argument whose referent undergoes a change of state or change of location) and the boundedness of the path argument given that the part structure of the event argument, the part structure of the figure, and the part structure of the path are related to each other via mutually constraining figure-path relations. The figure-path relations model is based on Krifka's (1989, 1992, 1998) theory, which employs formal semantic means in the characterization of the well-known fact that the part structure of the incremental theme very precisely corresponds to the part structure of the event argument (Bach 1986). This structural relationship (or homomorphism in Krifka's terminology) is illustrated by the predicate *ate a sandwich*, which describes an event that progresses through

the incremental theme. Thus the denoted event can be measured by the gradual disappearance of the referent of the incremental theme, i.e. the sandwich. Given that the part structure of the incremental theme is mapped to the part structure of the event argument via a homomorphism, the quantized nature of the theme (cf. *two apples* and *egy pohár bor* 'a glass of wine') yields a telic predicate, whereas a cumulative incremental theme (cf. *apples* and *sör* 'beer') gives rise to an atelic predicate. In other words, in the case of the former, the denoted event is interpreted as bounded, while in the case of the latter this reading does not arise since the endpoint of the event cannot be determined (cf. telic *ate two apples*, telic *ivott egy pohár bort* 'drank a glass of wine' and atelic *ate apples*, atelic *sört ivott* 'drank beer').

Beavers's model assumes a homomorphism between the part structure of incremental themes and the part structure of events (just like Krifka's) but it also departs from Krifka's theory: On the one hand, an important novelty of this theory is the revised definition of telicity, from which it follows that a telic interpretation arises if the predicate supplies a sufficient amount of information as to the endpoint of the denoted event. This definition is looser than Krifka's (1998) since it does not require the initial part of the event be specifically determined. Beavers's definition supercedes Krifka's since it can also account for the telicity of predicates like *John ran to the station* and *The soup warmed to 50 degrees*, which do not provide information as to the starting point of the event and yet receive a telic reading. On the other hand, contrary to common belief, Beavers also argues that the aspectual structure of events is determined by the structure of not one but two incremental theme arguments. On this view, the telicity of a predicate is guaranteed just in case the argument undergoing a change of state or a change of location (i.e. the figure) receives quantized reference and the path argument is bounded, i.e. the goal point on the path can be specified. This is illustrated by the English telic predicate *The children ran to the station*, where the figure (i.e. *the children*) is interpreted with quantized reference since it is instantiated by a definite nominal expression, while the goal point on the path can be fixed thanks to the prepositional phrase (i.e. *to the station*) in the predicate. If any of these conditions fails to be satisfied, the predicate can only receive an atelic reading (cf. atelic *Children ran to the station*, atelic *The children ran*, atelic *Children ran*).

The generalization formulated above is also characteristic of Hungarian predicates. However, in addition to what the FPR model proposes for English, in Hungarian there are also clear signs of some kind of telic marking. For instance, it is often the case that a verbal particle or a resultative XP is responsible for the bounded interpretation of a predicate. (cf. atelic *Kati futott* 'Kati ran', telic *Kati el-futott* 'Kati ran away', atelic *János festett egy kerítést*

'János painted a fence', telic *János pirosra festett egy kerítést* 'János painted a fence red'). It is an interesting property of Hungarian predicates that once they contain a resultative expression (e.g. *pirosra* 'into red') or a telicizing particle (e.g. *be* in *be-festett* 'PRT-painted'), the affected argument must receive quantized reference or else the neutral sentence containing the predicate is ungrammatical (cf. *János pirosra festett egy kerítést* 'János painted a fence red', *János befestett egy kerítést* 'János painted a fence' (telic) és **János pirosra festett kerítéseket* 'János painted fences red', **János befestett kerítéseket* 'János painted fences').

III. A brief summary of the results of the dissertation

The main claims of the dissertation are as follows:

1) The following aspectual differences are observable between Hungarian and English:

- (i) Hungarian telic predicates contain a specific event-bounding element, which can be a particle, a resultative/locative XP, a quantized scalar DP, or a quantized created/consumed theme. The *Principle of Telic Marking*, which I formulate below, captures this generalization:

The Principle of Telic Marking: Telicity must be overtly marked by event bounders.

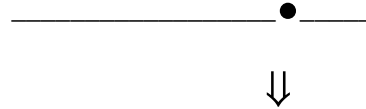
- (ii) On the other hand, it is also concluded that, whereas in English the identification of the goal point on the scale (i.e. path) yields the telic reading of predicates indirectly, in Hungarian the direct specification of the culmination point of the denoted event is what results in the same effect (i.e. telicity). An important consequence of this is that, for instance, Hungarian resultative XPs and particles are aspectually "heavier" than their English counterparts, since the former play a role in determining the endpoint of the denoted event, while the latter only make the encoded scale bounded, which does not guarantee telicity by itself. The aspectual difference between the two languages is illustrated schematically in Figures 1 and 2. It is important to note that the figures are not intended to illustrate some kind of rule-ordering. Instead, they show how the bounding of events determine the boundedness of scales and how the bounding of scales yield a telic interpretation. The former characterizes Hungarian, while the latter applies to English.

Step 1: Property scale

(as determined lexically by the head verb)



Step 2: Identification of specific goal point on scale
(as determined by context or the lexical specification
of a constituent within the VP)



Step 3: Identification of bound on event on the
condition that the figure is quantized



Figure 1. The encoding of telicity in English

Step 1: Property scale (as determined lexically by the head verb)



Step 2: Identification of bound on event
(as determined by a particle, a resultative XP, or a scalar
quantized nominal expression)



Step 3: Identification of specific goal point on scale



Figure 2. The encoding of telicity in Hungarian

- 2) In most cases, telicity in Hungarian arises due to a maximalization operation on events denoted by dynamic predicates (cf. Filip and Rothstein 2005, Rothstein 2008). It is argued that this operation yields quantized predicates, which in turn determines specific quantization/boundedness properties for the figure and path arguments and ultimately telicity.

- 3) Telicizing particles, resultative/locative XPs, and quantized scalar nominal expressions can be argued to contain a maximalization operator MAX_E . This is important as we can capture a cross-linguistic difference between Hungarian as well as English and Slavic languages. Specifically, in the latter MAX_E is a covert operator, as argued by Filip and Rothstein (2005) and Filip (2008), whereas in Hungarian it is clearly overtly expressed.
- 4) The aspectual behavior of Hungarian creation/consumption predicates is different from that of other predicates since in this predicate class the figure argument in conjunction with the verb maximally determines the path argument (i.e. the creation/consumption scale). The relationship between the part structure of the figure argument and the part structure of the consumption scale is illustrated in Figure 3, where the consumption of the referent of the figure argument is represented through the number of bites that it consists of in a given event. The atomic subparts of consumption scales are s_0, s_1, s_2 , and so on. The subpart s_0 corresponds to a state of affairs where not a single bite of the referent of the theme has been consumed. The subpart s_1 corresponds to a state of affairs where one bite of the theme has been consumed. The subpart s_n corresponds to a state of affairs where n bites of the referent of the theme have disappeared, where n is the total number of bites that the referent of the theme consists of.

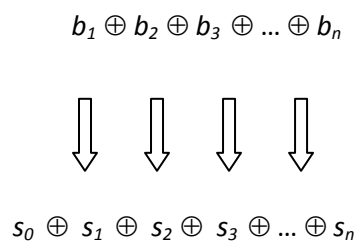


Figure 3. The determination of consumption scales

A predicate that encodes a consumption scale like the above is interpreted telically just in case the exact quantity of the affected argument is known (i.e. the argument receives quantized reference) since in this case the goal point of the scale (i.e. s_n) can be identified. The dissertation provides a novel definition of creation/consumption scales and shows how these scales differ from property scales (cf. the scales of degree achievements) and path scales (cf. the scales of motion predicates). An

important upshot of this investigation is that we can account for the similar aspectual behavior of canonical consumption predicates (e.g. *evett egy almát* 'ate an apple', *ivott egy pohár bort* 'drank a glass of wine'), predicates expressing intellectual ingestion (e.g. *olvasott egy cikket* 'read a paper', *tanult egy verset* 'learned a poem'), and creation predicates (e.g. *épített egy házat* 'built a house', *festett egy festményt* 'painted a painting') since the same scalar structure is attributed to all of these predicates. Furthermore, the analysis provides an answer to why English and Hungarian creation/consumption predicates display very similar aspectual properties and it also highlights the parallelism that is observable between the aspectual structure of particleless achievements like *tört egy kenyéret* 'broke a piece of bread off of a loaf of bread', *tépett egy papírlapot* 'tore a piece of paper off of a larger piece of paper', and *érkezett egy levél* 'a letter arrived' and that of canonical creation/consumption predicates. Finally, strictly atelic creation/consumption predicates like English *ate at an apple* and Hungarian *eszegetett egy almát* 'ate small bites from an apple' are also addressed.

- 5) The telicity of predicates like *futott 5 métert* 'ran 5 meters' follows from the fact that quantized scalar DPs like *5 métert* '5 meters' can also serve an event-bounding role, similarly to telicizing particles and resultative XPs. That is, they also seem to introduce event maximalization, thereby yielding quantized reference for the predicate, from which further interpretive restrictions follow with respect to the figure and scale arguments. (cf. *5 gyerek futott 5 métert* '5 children ran 5 meters' and **gyerekek futottak 5 métert* 'children ran 5 meters').
- 6) Particle variability, which is characteristic of several Hungarian degree achievements (cf. *szárad* 'dry' vs. *meg-szárad* 'PRT-dry', *ki-szárad* 'PRT-dry') is due to the lexical semantic content that the particle contributes to the meaning of the predicate. I argue that such predicates encode one property scale, regardless of the presence or absence of the particle and the identification of the goal point on their scale depends on the type of particle that the predicate contains.
- 7) Finally, the dissertation sheds light on a number of important aspectual differences between English and Hungarian in addition to the ones mentioned above. For instance, predicates encoding two-point scales must contain an event-bounding constituent (vö. *el-tört egy vázát* 'PRT-broke a vase', *darabokra tört egy vázát* 'broke a vase into pieces', *el-érte a hegycsúcsot* 'PRT-reached the hilltop', *meg-halt a szomszéd* 'the neighbor PRT-died' **tört egy vázát* 'broke a vase', **érte a hegycsúcsot* 'reached the

hilltop', **halt a szomszéd* 'the neighbor died'). Also, predicates like *the painter painted fences red* and *students ran away*, which contain a bounded path and a non-quantized figure are acceptable in English, while their counterparts are unacceptable in Hungarian (cf. **a festő pirosra festett kerítéseket* 'the painter painted fences red', **diákok el-futottak* 'students PRT-ran').

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V. The author's papers, talks, and abstracts accepted for presentation in the subject matter of the dissertation

Papers:

- Kardos, É.: Remarks on implicit arguments. In: Andor, J., Hollósy, B., Laczkó, T. & Pelyvás, P. (eds.): *When Grammar Minds Language and Literature. A Festschrift for Prof. Béla Korponay on Occasion of his 80th Birthday*. Debrecen: Institute of English and American Studies, University of Debrecen, 2008, 253-261.
- Kardos, É.: A three-step model of implicit argument licensing. In: Çolak-Karadaş, D. & Kiliçkaya, F. (eds.): *Proceedings of the 6th METU Postgraduate Conference in Language Teaching and Linguistics*. Ankara: Middle East Technical University, 2009, 72-79.
- Kardos, É.: The argument expression of change-of-state verbs and pseudo-transitive verbs. *Seven Mountains and Seven Voices. Bergen Language and Linguistic Studies*. <http://bells.uib.no>. (letöltés: 2012.08.15.)
- Pethő, G. & Kardos É.: A kontrasztív adatok szerepe az implicit argumentumok engedélyezésének elméletében. In: Csatár, P. & Pethő, G. (eds.): *Szemantikai Intuíciók mint Nyelvészeti Adatok*. Debrecen: Kossuth University Press, 2008, 129-154.
- Pethő, G. & Kardos É.: Cross-linguistic evidence and the licensing of implicit arguments. In: Behrens, B. & Fabricius-Hansen, C. (eds.): *Structuring Information in Discourse: the Explicit/Implicit Dimension. Oslo Studies in Language*. Oslo: University of Oslo, 2009, 33-61.
- Pethő, G. & Kardos É.: Miért nem száradhat meg a forrás és ki a pohár? - Szemantikai próbálkozások a folyamatos állapotváltozást jelölő igék témakörében. In: Iványi, Zs. & Pethő, G. (eds.): *A Szaván Fogott Gondolat. Ünnepi Könyv Kocsány Piroska Tiszteletére* Debrecen: Printart-Press Kft, 2011, 331-349.

Talks and abstracts accepted for presentation:

- Kardos Éva. A three-step model of implicit argument licensing. *6th METU Postgraduate Conference in Linguistics and Language Teaching*. Ankara: Middle East Technical University, 2008.
- Kardos Éva. The analysis of Hungarian prefixed pseudo-transitive verbs in Ramchand's First Phase Syntax. *3rd Scandinavian Ph.D. Conference in Linguistics and Philology*. Bergen: University of Bergen, 2009.

- Kardos Éva. Aspectual variation in light of data from English and Hungarian. *Linglunch*. Paris: Université Paris Diderot, 2011
- Kardos Éva. The ingredients of telicity. 5th Syntax, Phonology and Language Analysis Conference (SinFonIJA 5). Vienna: University of Vienna, 2012a.
- Kardos Éva. Telicity is event maximalization: evidence from Hungarian. International Symposium and Round Table Focusing on Verbal Aspect in the Slavic Languages. Bucharest: University of Bucharest, 2012b.
- Pethő Gergely and Kardos Éva. A cross-linguistic investigation of the licensing and interpretation of implicit object arguments. *Languages in Contrast*. Oslo: University of Oslo, 2006.
- Pethő Gergely and Kardos Éva. Transitivity and event structure: evidence from Hungarian complex verbs. *Workshop on Transitivity*. Cologne: University of Cologne, 2008.