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The repercussions of OV > VO shift in Hungarian: Variation and change in syntactic complex predicate formation

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ABSTRACT

This paper investigates the diachronic development of Hungarian word order, focusing on the syntactic position in front of the finite verb in light of the syntactic shift from OV to VO order. The so-called Verb Modifiers (VMs), which precede the verb in Modern Hungarian, showed significant word order variation in earlier periods. It is examined how this variation, and especially the difference between verbal particles and other VMs, can be accounted for. The study concludes that the VM–V order is not a syntactic remnant but a result of a syntactic change that affects all VMs already in the early texts.

KEYWORDS

OV > VO change, Verb Modifier, reanalysis, word order, verbal particles, Hungarian

1. INTRODUCTION

In this paper we take a close look at a characteristic trait of Hungarian word order and its diachronic development, and investigate it in light of a major syntactic change from OV to VO order in the language. The word order of so-called Verb Modifiers (VMs) is under investigation here: these are

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(syntactically or semantically) predicative constituents, which generally strictly precede the verb in Modern Hungarian but show a significant variation in earlier stages of the grammar. The order of these constituents could, in principle, be a remnant OV property of the language but we argue, based on our corpus study, that this is not the case.

We claim that the synchronic word order of VMs whereby they immediately precede the verb in neutral sentences is the product of a syntactic change that must have taken place before the first recorded texts, as evidenced by the very systematic pre-verbal position of verbal particles from the earliest records. This change, however, did not result in a uniform pre-verbal ordering for all VMs at the same time. By way of a detailed corpus study, we investigate whether the variation that we find in the data can be explained by interfering factors or we need to assume different paths in arriving at the the modern syntactic configuration. We argue that word order variation that we see in the historical texts concerning the relevant constituents are due to changes in the obligatoriness of creating the specific configuration of complex predication in overt syntax and filling the Spec, PredP position.

The paper is structured as follows. In Section 2, the theoretical background is outlined both in terms of the general properties of the various constituents that belong to what is referred to as Verb Modifiers and in terms of their relevance in the word order properties of the language. Section 3 provides the methodological background for our corpus study, and then Section 4 gives the details of what we found in our historical corpora for the various types of VMs in Old Hungarian and Early Middle Hungarian. Section 5, then, turns to the generalizations we can draw from the corpus study of the different VMs and what kind of answers we can give to the questions that we set out with. Finally, Section 6 concludes the paper.

2. BACKGROUND

2.1. Verb Modifiers in the syntax of Present Day Hungarian

The syntactic literature on Hungarian has paid a lot of attention to the word order properties of the language and especially to the pre-verbal field due to its particular properties. It was pointed out by É. Kiss (1987, 1994 a.o.) that the main determining factor of the ordering of constituents is not the grammatical function of the constituents, such as subject or object, but rather information structure plays a huge role. As É. Kiss (2002) points out, the sentence can essentially be divided along a topic – predicate distinction, illustrated by (1).

(1) a. [$_{Top}$ János] [$_{Pred}$ fel-hívta Marit].
John up-called Mary.ACC
'John called up Mary.'

b. [$_{Top}$ Marit] [$_{Pred}$ fel-hívta János].
Mary.ACC up-called John
'John called up Mary.' (É. Kiss 2002, 3)

The main skeleton of the clause involves topic constituents clause-initially, and they can be followed by distributive quantifiers, a unique focus constituent, and then the verb and the largely free post-verbal field follows, (2).

(2) $[_{TopP^*}\ [_{Dis}t_{P^*}\ [_{FocP}\ [_{TP}\ \ldots\ ]]]]$

There is a difference between topics and quantifiers as opposed to foci, in that the former two do not influence the order within the predicate, but focus does. In (3) the goal-denoting directional PP *haza* '(to) home' precedes the verb, while in the presence of a focus, as in (4) (made obvious by the focus particle *csak* 'only'), the verb immediately follows the focused constituent and the directional PP is post-verbal.

(3) [A tanár] [minden gyereket] haza-küldött.
the teacher every child.ACC home.to-send.PST.3SG
'The teacher sent home every child.'

(4) A tanár (csak) PETIT küldte haza.
the teacher only Pete.ACC send.PST.DEFOBJ.3SG home.to
'It was (only) Pete that the teacher sent home.'

The clause may have the negative particle *nem* 'not' immediately preceding the verb-initial part of the predicate or preceding the focus constituent if the focus is within the scope of negation. In both of these cases, the verb follows either the negative particle or the focus of the clause and the directional complement is post-verbal.

(5) a. A tanár nem küldte haza Petit.
the teacher not send.PST.DEFOBJ.3SG home.to Pete.ACC
'The teacher didn't send Pete home.'

b. A tanár nem PETIT küldte haza.
the teacher not Pete.ACC send.PST.DEFOBJ.3SG home.to
'It wasn't Pete the teacher sent home.'

In sentences without a focus or negation, it is very often the case that the verb is preceded by a constituent such as the particles or goal-denoting PPs above. These pre-verbal constituents are collectively called Verb Modifiers (or Verbal Modifiers, the two names are interchangeable in the literature), and these constituents are post-verbal in sentences with negation or focus, including *wh*-questions (in which the *wh*-phrase is in the focus position, see É. Kiss 2002 a.o.). A couple of examples show the so called neutral order in (6) and the so called non-neutral or inverted order in (7) both in the case of a verbal particle, such as *el* 'away', and a more complex directional phrase with a motion verb.

(6) a. A labda **el**-gurult.
the ball away-roll.PST.3SG
'The ball rolled away.'

b. A labda **az ellenfél játékosa elé** gurult.
the ball the opponent player.POSS before.to roll.PST.3SG
'The ball rolled in front of the opponent's player.'

(7) a. A labda mikor gurult **el**?
the ball when roll.PST.3SG away
'When did the ball roll away?'

b. A labda mikor gurult **az ellenfél játékosa elé**?
the ball when roll.PST.3SG the opponent player.POSS before.to
'When did the ball roll in front of the opponent's player?'

The topic of VMs and their word order properties have become significant in formal syntactic analyses of Modern Hungarian (starting with Kálmán et al. 1986; then later Komlósy 1992, 1994; and more recently É. Kiss 2002, 2006). VMs are hierarchically the lowest among the pre-verbal constituents (they are the closest to the verb), whose order with respect to the verb has also become symptomatic of the distinction of neutral and non-neutral sentences (Kálmán 1985a, 1985b) and in identifying structural focus in the clause. VMs are immediately pre-verbal in neutral sentences (or if there is a narrow focus on them) and are not in this position if the clause is negated, or if it contains a focused constituent or a *wh*-expression. Neutral and non-neutral sentences involve different intonational patterns (the terminology originated from this property), with neutral ones having a level prosody (Kálmán 1985a). The word order difference is generally assumed to be the result of verb movement into a higher functional position, labeled FocP in (2), the specifier of which hosts the focused constituent. Verb movement is also assumed to take place in other contexts that involve non-neutral order (e.g., in the case of negation, or in imperatives).

This generalization about VMs can also be stated differently: if a constituent is immediately pre-verbal in a clause without negation, focus or *wh*-expression, i.e., in a neutral sentence, then it belongs to the group of constituents that can be collectively called Verb Modifiers. Verbal particles are in some respect the prototypical VMs (and they have been treated as such, although mostly implicitly, in the literature), as they are very frequent and are extremely consistent in their order. At the same time, they are also atypical in at least two aspects: syntactically, they are minimal constituents, basically only consisting of a single morpheme; and semantically, they are often only functional with not much lexical content and they regularly form an idiomatic unit with the verb. The other VMs are much more clearly phrasal in their syntax, and are lexical, compositional in their semantics (see the contrast between (6a) and (6b)).

Nevertheless, the identical behavior in their word order patterns, as illustrated in (6) and (7), makes it obvious that any VM should get a similar treatment at some level when their word order is derived. The next section will make it clear that we think that their syntactic properties are a consequence of their shared semantic contribution, and this is the diachronically constant property which makes it possible to identify them as Verb Modifiers even in the period when their word order showed variation.

2.2. The shared semantics of Verb Modifiers

The pre-verbal VM position is not related to scope or information structure but rather to the composition of event structure and aspect. The nature of the syntactic position and the derivation of the pre-verbal order has been a long standing issue, with various proposals in the past decades (see Hegedűs 2013 for an overview). É. Kiss (2006) put forth a general syntactic analysis

of VMs, which aims to account for all subtypes and which we take to be on the right track and broadly follow in our proposal. This proposal emphasizes the shared role of the various constituents that are neutrally pre-verbal: they contribute to the predicational part of the clause as opposed to the syntactically freer (referential) arguments and scope-taking operators (see also Hegedűs 2013, 2018).

In order to give an overview, we take Komlósy's (1994, 99–100) list of possible Verb Modifiers. Although the list is relatively long at first sight, we find that they can be sorted into a few groups of morpho-syntactically similar types (see Hegedűs 2013, 16–17). The examples in (8) are all predicative complements appearing with the copula; semantically, they are primary predicates, while syntactically, they can be analyzed as predicates in small clauses (see e.g., Kádár 2011; Hegedűs 2013). While Komlósy did not unify them, the examples in (9) are all predicative PPs: this group includes verbal particles (both clearly directional ones and semantically more bleached ones); (directional) complements of motion verbs and (locative) complements of positional verbs; resultative secondary predicates, and predicative complements of *consider*-type verbs. The third group involves bare nominal internal arguments (including bare nominal subjects, objects and possessees), as in (10). Furthermore, we have Komlósy's (1994) VP-adverbs in this list in (11). While adverbial complements, such as (11a) may be rightfully listed here, adjuncts, such as (11b) are probably different, both in their syntax and in their semantic relation to the verb, therefore, we exclude them from our study. Finally, the last group involves infinitival complements, which also have the property that they often appear before their selecting verb (12), as do similar infinitival constructions in many Germanic languages. Due to the complexity of the issues with their syntactic properties (see e.g., Koopman & Szabolcsi 2000; É. Kiss & van Riemsdijk 2004), we also excluded them from our study here.

(8) a. Péter tegnap **beteg** volt.
Peter yesterday ill was
'Peter was ill yesterday.'

b. Péter tavaly **katona** volt.
Peter last.year soldier be.PST.3SG
'Peter was a soldier last year.'

c. Péter tegnap **rosszul** volt.
Peter yesterday badly be.PST.3SG
'Peter was sick yesterday.'

(9) a. Péter **el**-dobta a labdát.
Peter away-throw.PST.DEFOBJ.3SG the ball.ACC
'Peter threw the ball away.'

b. Péter **meg**-verte Jánost.
Peter PRT-beat.PST.DEFOBJ.3SG John.ACC
'Peter beat John up.'

c. Péter **az asztal-ra** / **az ágy alá** tette a könyvet.
Peter the table-SUB the bed under put.PST.DEFOBJ.3SG the book.ACC
'Peter put the book on the table / under the bed.'

d. Péter **a kamrá-ban** / **az ágy alatt** tartja a
Peter the pantry-INE the bed under keep.DEFOBJ.3SG the
könyveit.
book.POSS.3SG.PL.ACC
'Peter keeps his books in the pantry / under the bed.'

e. Péter **szén-né** égette a húst.
Peter coal-TRE burn.PST.DEFOBJ.3SG the meat.ACC
'Peter burned the meat to cinders.'

f. Péter **piros-ra** festette a kerítést.
Peter red-SUB paint.PST.DEFOBJ.3SG the fence.ACC
'Peter painted the fence red.'

g. Péter **okos-nak** tartja Marit.
Peter clever-DAT consider.DEFOBJ.3SG Mary.ACC
'Peter considers Mary clever.'

(10) a. Péter-nek **víz** ment a szemébe.
Peter-DAT water go.PST.3SG the eye.POSS.3SG.ILL
'Water got into Peter's eyes.'

b. Péter **újság-ot** olvas a kertben.
Peter newspaper-ACC read.3SG the garden.INE
'Peter is reading a newspaper / newspapers in the garden.'

c. Péter-nek **láz-a** van.
Peter-DAT fever-POSS.3SG be.3SG
'Peter has fever.'

(11) a. Péter **jól** bánik Marival.
Peter well treat.3SG Mary.INS
'Peter treats Mary well.'

b. Péter **ügyesen** vezeti a labdát.
Peter skillfully lead.DEFOBJ.3SG the ball.ACC
'Peter dribbles the ball skillfully.'

(12) Péter **úsz-ni** akar.
Peter swim-INF want.3SG
'Peter wants to swim.'

As is obvious from these examples, VMs are always a part of the predicate and are never referential arguments. This is clear in the case of lexical predicates with the copula, or secondary predicates of various sorts. The only type that requires some explanation is bare internal arguments; however, Farkas & de Swart (2003) have shown that Hungarian bare nominal arguments do not refer to individuals but to properties, and therefore, they are semi-

incorporated in syntax and semantics in order to be within the predicate of the clause. We take this property to be the key factor in their VM-behavior.

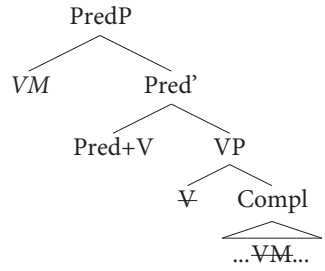
From this perspective, Hungarian "wears its LF on its sleeve" (Szabolcsi 1997, 118) not only with respect to marking scope relations in overt syntax but also with respect to syntactic complex predicate formation. Complex predicates are formed in simple events when there is a non-referential complement in the form of a bare nominal or a predicate in the complement of the copular verb; and they are formed in complex events when there is a secondary predicate, which is categorially always a PP in Hungarian. These latter complex predicates that express complex events are also semantically telic (É. Kiss 2006): the goal-denoting non-verbal part of the predication adds the telicizing semantic content (indicating a change of state and the concomitant completion of the event, Smith 1991, 19), thus having an aspectual contribution in this sense. However, even when these constituents are not pre-verbal on the surface, their semantic relation to the verb is the same, they are still part of the same predication structure at LF.[1]

This shared semantics is the reason why we subscribe to the view that the identical treatment of VMs in Modern Hungarian can be characterized as follows: VMs are base-generated within the VP, and, due to their predicative nature, they are moved into the Specifier position of a low functional head on top of the VP, which we take to be a Predicative Phrase. In this specific analysis, we follow Zwart's (1993) and Koster's (1994) proposals for Dutch complex predicates and the adaptation of their analysis by É. Kiss (2006) for Hungarian. Specifically, we adapt this proposal as given in (13) with PredP being right above VP and being the projection that hosts the verb in its head and the VM in its specifier.[2] We also assume that the proposal of a two-step derivation of the surface position of the verb in neutral sentences by Surányi (2009) is on the right track. Surányi (2009) proposed an extension of the idea of a low projection for VMs by adding a movement of the constituent in the specifier of PredP and the verb in the Pred head further up to TP in order to account for fact that the verb must be higher in the hierarchy in surface structure. Since we are primarily concerned with the initial complex predicate formation, the second step is less of a concern for us, as it is just assumed to replicate the order derived in the first step, i.e., in the movement into the specificer and head positions of PredP.

[1]For Chomsky (1975), the verbal and non-verbal predicate forms a complex or compound predicate, where they select the arguments together. In analyses that assume a small clause configuration between the secondary predicate and the internal argument, it is not the case that the verb and the non-verbal part of the predicate select the internal argument together; however, the idea that the verb and the non-verbal predicate form a complex predicate at some point of the derivation is compatible with these analyses as well. In English, this would be at LF, in Hungarian, this complex predicate formation is in overt syntax.

[2]Two notes are in order here. We allow for the possibility that some VMs, namely, some verbal particles, are not moved into Spec, PredP but are inserted into the structure there, as proposed by Hegedűs & Dékány (2017) and Hegedűs (2020) recently. This does not change the broad proposal in terms of reanalysis we are pursuing. Furthermore, while we are aware that verbal particles have also been proposed to occupy an aspectual position in the clause (recently by Kardos & Farkas 2022, see also É. Kiss 2002), we are interested in maintaining a simple reanalysis in the diachronic account, and to the extent that it has broader empirical coverage without positing multiple structural reanalyses, we take it to be the more economical account (cf. Hegedűs 2013).

(13)



This is a derived syntactic configuration for the promotion of non-referential internal arguments and syntactic small clause predicates to a position where they are immediately next to the verbal predicate. In this paper, we argue that word order changes that we see in the historical texts concerning the relevant constituents are changes in the obligatoriness of creating this configuration overtly and filling the Spec, PredP position.

2.3. Verb Modifiers and the OV > VO change

We assume with recent literature that Hungarian word order has undergone a change from being an OV language to becoming a VO one, or, more generally speaking, from being a typologically head-final language to becoming head-initial (É. Kiss 2013, 2014). This general word order change is similar to what has happened in the history of English as well (in a well-documented way). Along with this general change, the make-up of various functional projections has also changed in Hungarian, and the newly developed (or newly lexicalized) functional projections are head-initial.

For English, the morpho-syntactic changes that went along with the change into a VO language resulted in a strict ordering of object arguments post-verbally but also in a change whereby particles also follow the verb. What has been documented for English particles is that they used to be pre-verbal in the OV grammar (as they are in the OV Germanic languages today), and they have been taken in the literature as a diagnostic tool for identifying when the OV > VO change took place. Since particles are never moved to the right for information structural reasons, i.e., for topicality, or due to heaviness, at the point in history when they appear post-verbally, they must have been generated there (Kroch & Taylor 2000; Pintzuk 2002; Kroch 2005; Elenbaas 2006).

The case of Hungarian is relevant from this respect when it comes to the syntactic changes indicating an OV > VO parametric change in the language. Verbal particles are the prototypical cases of the "class" of what we collectively call VMs. VMs seem to have evaded a word order change since they are pre-verbal in Modern Hungarian, thus showing a head-final property. Does this mean that verbal particles (and VMs in general) are indicators of an OV order at any part of the recorded period, or is there evidence for some other interfering syntactic factors diachronically? This is what our project set out to focus on by taking a close look at the word order patterns and on the possibilities of accounting for the word order variation in the early periods.

É. Kiss (2014) claimed that the pre-verbal order of verbal particles in Old Hungarian is due to the emergence of a functional projection to the left of the verb. She takes it to be a part of the emergence (or lexicalization) of the left periphery of the clause in a grammar that was changing

from an OV-type to a VO-type with relatively free word order. In this change, the surface order of constituents came to be determined by factors other than their argument structural roles. Verbal particles, and, more generally, VMs remained pre-verbal after these changes due to their new functional position. While in an OV-type grammar, they might have been pre-verbal in their base position, as part of the complementation of the verb, in the new system, their pre-verbal position is derived, they occupy a functional position.

Hegedűs (2018) examined the word order properties of verbal particles and other VMs in early texts, but that study was limited to 500 occurrences of the relevant constituents in neutral and non-neutral clauses, and only looked at Old Hungarian. What was found was supporting É. Kiss' proposal of a rather general pre-verbal pattern for verbal particles, which was expected under the assumption that the OV > VO change had mostly taken place by Old Hungarian but some variation was showing the tail-end of the reanalyses in the clause structure. However, the other types of VMs were showing much more variation and this merits attention. Our study takes a much closer look at the corpus data from Old Hungarian and from Early Middle Hungarian, and it can thus provide a better view on the variation and its relation to the assumed changes.

2.4. Reanalysis and variation

The word order under investigation in this paper is a result of a syntactic reanalysis. We follow and build on the proposal by Hegedűs (2018) in assuming that the pre-verbal position of VMs is a functional position on top of the VP, where VMs move in overt syntax and that its emergence was the result of a syntactic change. There is a general consensus in recent syntactic analyses (of Modern Hungarian) about the position being a derived position for VMs.[3] There are at least two important issues raised by this proposal.

One issue is the possible clash between assuming categorical changes and observing variation in the data. Specifically, in our case the conflict may lie between assuming a structural reanalysis (or perhaps more than one reanalysis) in the derivation of the position of verbal particles, for instance, but seeing variation in their word order in our corpus data. The second issue is that the reanalysis of the pre-verbal position into a VM-position should, in principle, have resulted in a change that involved all VMs in the same manner, i.e., not only verbal particles but also the other types of constituents that we now call VMs should have been involved in the change in one fell swoop. This means that all directional (predicative) complements, all lexical secondary and primary predicates, as well as bare internal arguments should behave identically in the historical data. This is not what we find, or at least the data are much "messier" at first sight than one expects, provided the change in the grammar took place at an early stage, which we assume.

Taking the standpoint that grammar is in the mind of the individual speakers, we assume that grammatical change happens through language acquisition; i.e., it happens when a new generation of speakers acquires a different grammar than the previous one (see Lightfoot 1999 a.o.). This also necessitates that grammatical change is categorical, which may, on the surface,

[3]Lexicalist accounts have mostly based their assumptions on verbal particles, which have been argued to form a lexical unit with the verb and as such to be inserted into the structure with the verb; see e.g., Ackerman & Webelhuth (1998). Such a lexicalist account may have to take recourse to different diachronic analyses for the development of particles and other VMs.

seem to be in conflict with the variation that we find in the data of historical corpora even within a single text from the same speaker. Looking at historical data, we often find that change occurs with two or more variants co-existing in some form for some time, making change appear gradual. Lightfoot (1999, 83) put it this way: "If we think macroscopically, in terms of changes in sets of more or less unanalyzed phenomena, using a wide-angle lens, then change always seems to be gradual." The illustration he brings to this concerns the object-verb order changing to verb-object order in the written history of English, which is quite an apt example for our purposes as well. This word order change in English seems rather gradual on the whole but if we take into consideration grammatically relevant distinctions, such as the difference between main clauses and embedded clauses, we find the regularities that can account for the surface variation in the data while assuming a couple of categorical changes in the grammar. (In the case of English, it means a change in the head-complement order parameter and in the presence of verb movement.)

We claim that this also applies to the low functional head that hosts verbal particles and other VMs. While there was a general change in the directionality of merging internal arguments (i.e., in their neutral position), there was also a syntactic change that resulted in the pre-verbal movement of predicative constituents into the specifier of the functional projection PredP. This reanalysis of the pre-verbal argument position must have predated the first recorded text of Hungarian (Funeral Sermon and Prayer, 1195) as it displays obvious VO patterns but has pre-verbal VMs (É. Kiss 2014). However, systematic investigation of variation and change is only possible from Late Old Hungarian because longer texts are only available from then on, and in these texts we find regular pre-verbal position of verbal particles (as we will examine in Section 4.1; see also Hegedűs 2018). Since the basic word order was verb-initial by that point this meant that predicative constituents were moved into the specifier position. However, all other categories that are now uniformly immediately pre-verbal show some variation for at least the Old Hungarian period, and some even longer, only verbal particles are overwhelmingly pre-verbal at first. Hegedűs (2018) explained this by assuming that particles were the trigger of the change, as they were not prone to being moved around in the clause due to information structure or heaviness, but were rather consistently in their previously base-generated immediately pre-verbal position. With this syntactic change, Hungarian never really showed the regular post-verbal pattern of particles, contrary to what happened in English. We will take a close look at the minor variation we do find in our corpora in Section 4.1.

The tension, then, is between the grammatical change whereby complex predicates came to be derived in a functional projection on top of the VP (and we argue that this reanalysis happened early on) and the variation both across the different types of VMs and within any single type of VM that we find in our corpora. However, if the variation can be attributed to other, conspiring factors, we can maintain the earlier proposal and gain insight into the nature of verb modifiers and other relevant grammatical changes.

What seems to be optionality can be a sign of coexisting grammars; at any given time a speaker may have access to more than one grammar if those grammars are both learnable from the primary linguistic data available to the learner. The variation may also be the result of further grammatical operations disguising the structural patterns that we expect (similarly to how verb movement and VO order appeared in English), but in this case, these operations do not show uniform behavior across the board, either. In the end we may have to assume real,

syntactic optionality, e.g., optionality in movement operations, and this optionality may also be variable across time or dialects.

If it is the case that we are dealing with competing grammars or with optionality of movement operations within a given community or within the speakers (cf. Roberts 2007), is it the case that VM movement has not become a rule in all dialects, or is it the case that VM movement is less generally applicable in some variants than in others? If the latter, what are the interfering properties of such a system? By assuming more than one structural reanalysis and possibly several syntactic systems, we are multiplying our possibilities, so if we can avoid it, it seems economical to do so. Therefore, we try to maintain the proposal that the syntactic change is just the simple combination of two things: (i) the reanalysis of the pre-verbal position into a functional projection that hosts predicative items, and (ii) the movement of predicative constituents into this position (and the verb into its head). Under this scenario, all variation must be due to independent factors. We will see if this is tenable by looking into the different types of VMs one by one in our corpus study.

3. METHODS

In what follows, we are going to investigate the relationship of the dependent variable, that is, the placement of the VM in neutral clauses (pre-verbal/post-verbal, which we take to be due to the presence or absence of the movement of the verb modifier into the specifier of PredP), and the following independent variables: (a) type of verb modifier; (b) time period; (c) interference due to translation. Before spelling these out in more detail, we need to give a brief description of the corpora our results stem from, as their idiosyncratic properties affect the operationalization of the variables.

Our work is based on two corpora: the corpus of the Hungarian Generative Historical Syntax Project (http://omagyarkorpusz.nytud.hu/en-intro.html, Simon & Sass 2012) and the Old and Middle Hungarian[4] Corpus of Informal Language Use (http://tmk.nytud.hu, Novák et al. 2018). The former consists of three modules: (i) Old Hungarian codices; (ii) miscellaneous minor texts; (iii) Middle Hungarian Bible translations. Our data were drawn from the morphologically annotated subcorpus of Old Hungarian codices, comprising the six sources listed in Table 1 below.[5] As morphological labels were indispensable for querying, narrowing the scope to these texts was inevitable. The Old Hungarian investigated here codices all contain religious texts that are copies of Hungarian translations of Latin sources.

The latter corpus consists of witch trials and items of private correspondence predating 1772. The distribution of the data is highly uneven in the subperiods due to the features of these texts

[4]Both Old and Middle Hungarian have symbolic boundaries. Old Hungarian is considered to begin in 896, the year when the Hungarian tribes entered and began settling in the Carpathian Basin. The earliest text from this period dates back to 1195, while longer documents are only available from the 15th century onward. The symbolic boundary between Old and Middle Hungarian is set at 1526, the year of the Battle of Mohács and the fall of the Kingdom of Hungary. The transition between Middle Hungarian and Early Modern Hungarian is symbolically marked by 1772, the beginning of the Age of Enlightenment in Hungary.

[5]Token numbers do not include punctuation marks.

Table 1. Old Hungarian codices

Source	Abbreviation	Year	Number of tokens
Jókai Codex	JókC.	after 1370/1440	22,244
Munich Codex	MunchC.	1466	58,521
Festetics Codex	FestC.	1492–1494	19,145
Guary Codex	GuaryC.	before 1508	19,864
Jordánszky Codex	JordC.	1516–1519	100,294
Könyvecse	Könyv.	1521	8,783
Total			228,851

and a turbulent history in general. Table 2 shows the token numbers per c. 50-year periods contained in this corpus.

In order to get comparable datasets, we had to exclude non-neutral sentences. As a first step, we excluded subjunctive-marked verbs in the query expression, thus discarding imperative, embedded imperative and subjunctive clauses: to a differing extent, but these all involve the displacement of the verb (to a higher position) across all documented periods of Hungarian. As a second step, we filtered out manually other types of non-neutral sentences, i.e., sentences with a focused constituent, as well as interrogative and negative clauses. In the case of more frequent categories (such as verbal particles), we filtered random samples, in the case of less frequent categories, we checked exhaustive lists. The general aim was to find at least around a hundred occurrences of each type of VM in both large time periods, and compare these similar-sized datasets. In the case of the six Old Hungarian codices, we also tried to represent each of these in our datasets, but this was not always possible due to data scarcity.

During the manual tagging of the hits, we had to realize that on top of those syntactic configurations that trigger verb movement either categorically or optionally throughout the history of Hungarian, there are two further syntactic environments in which we had to consider that the verb was probably optionally moved from its neutral position in the periods under

Table 2. Data from the Old and Middle Hungarian Corpus of Informal Texts (Varga 2024, 221)

Subperiod	Nr. of tokens in letters	Nr. of tokens in trials
1472–1550	24,533	0
1551–1600	132,487	26,284
1601–1650	53,978	23,217
1651–1700	15,150	31,357
1701–1750	344,098	385,400
1751–1772	7,045	132,389
Total	577,291	598,647

investigation, therefore, in such cases, verb movement can also account for the post-verbal occurrence of the VM. One of these contexts is the group of clauses that have a verb marked with the conditional marker but occurring in the function of an embedded imperative or subjunctive (cf. Abaffy 1992; Kántor 2014). The other group that seems to show this irregular pattern is that of relative clauses: the relative pronouns that were form-identical to question words in these time periods were sometimes immediately followed by the verb, suggesting that they could also trigger verb movement, similarly to *wh*-questions. However, verb movement seems to be optional in both of these contexts. More precisely, dedicated investigations would be required to determine the factors that influence whether the verb moves into a higher functional projection or not. As this issue is beyond the scope of the present paper, we decided to include these data, acknowledging that these two contexts might skew the distribution towards a more frequent occurrence of the V–VM pattern.

The first of the independent variables, that of the category of VM, was the least problematic concerning both the handling of its levels (verbal particle, directional complement of a motion verb, bare nominal object, secondary predicate, nominal and adjectival primary predicate) and the interpretation of results.[6] However, time period and interference due to translation are not orthogonal factors, and this makes the analysis of their effect difficult.

As seen in Tables 1 and 2, there is an overlap between the periods covered by the two corpora. As we wanted to concentrate on a shift, we primarily focused on those data from the Old and Middle Hungarian Corpus of Informal Language Use that post-date the data from the codices, but are pre-1600. Even so, the Old Hungarian data from codices and the Middle Hungarian data from trials and letters differ in more features than just the time of recording: they represent different registers and they also differ in the extent to which they can exhibit traits of interference. Moreover, the question of the possibility of contact phenomena cannot be answered in a binary manner, that is, one cannot match codices with [+Latin influence], and letters and trials with [−Latin influence]. On the one hand, the scribes of the codices could be very different in this respect, i.e., the extent to which their work displayed contact phenomena. On the other hand, Middle Hungarian sources cannot be conceived of as free of interference, either. The writers of letters represent the nobility, and Latin played an important role in their education; they also corresponded in Latin, and many letters exhibit instances of code switching. The witnesses and people on trial were mostly uneducated serfs, but their testimonies were written down by clerks who were educated in Latin. The official, formulaic parts of the records are frequently in Latin, and one sometimes finds Latin phrases inserted in quotes from the witnesses that could hardly originate from the speakers themselves. Therefore we conceptualize the interference of Latin as a scalar phenomenon that is most likely to leave its traits on Old Hungarian codices, and when finding differences between Old and Middle Hungarian texts, we carefully considered whether that was due to a shift or simply less Latin in the background. Having taken all this into account, the comparison of verbal particles with the other types of VMs is also helpful, as in the case of particles pattern borrowing is ruled out due to the fact that Latin verbal prefixes are inseparable.

A further – fundamental and permanent – source of variation is inter-speaker variation: the linguistic output of speakers can reflect different dialects, different social groups, and additional,

[6]Problems specific to the different types of VMs will be discussed in the appropriate subsection of Section 4.

perhaps idiosyncratic features. However, "speaker" has to be handled as a rather fuzzy notion in this investigation. In the case of Old Hungarian codices, source serves as a rough proxy for speaker. On the one hand, some of the sources are a joint work of several scribes.[7] On the other hand, these scribes copied (perhaps copies of) original translations, that is, almost any Old Hungarian codex reflects the linguistic output of several speakers: that of the original translators and those making the copies, and the social factors of these speakers are generally unknown. In the case of Early Middle Hungarian, letters are less problematic in this respect, but trials again originate from several speakers, and the original spoken texts survived due to the mediation of scribes. This aspect could be operationalized as a variable only if it were possible to investigate long enough texts in their entirety, and therefore at the present we will only note if we come across cases in which variation seems to be due to this factor.

4. RESULTS OF THE CORPUS STUDY

In what follows, we are going to survey the different types of verb modifiers, namely verbal particles (4.1), directional complements of motion verbs (4.2), two forms of secondary predicates (4.3), bare nominal objects (4.4), and adjectival and nominal predicates of copular clauses (4.5). We presume that the default position of these constituents, similarly to other phrases, was pre-verbal prior to the OV > VO change. The periods under investigation in the present paper, i.e., Late Old Hungarian and Early Middle Hungarian, both postdate this general word order change. Therefore, we postulate that the post-verbal occurrence of these constituents reflects their base-generated position, and whenever we find them pre-verbally, that is the result of movement to a specific functional projection, the specifier of the Predicative Phrase. The following sections contrast frequency data (post-verbal vs. pre-verbal position) drawn from Late Old Hungarian codices and Early Middle Hungarian informal texts, and aims at unraveling the various factors that have an effect on the placement of verb modifiers. As the results show, the different verb modifier types were moved to the pre-verbal position at different rates in the Old Hungarian Codices, whereas they are more uniformly moved in the Early Middle Hungarian sources. Still, variation does not cease at this point, whereas in Standard Modern Hungarian, all these verb modifiers are moved in neutral clauses.

4.1. Verbal particles

4.1.1. Our corpus data and the variation within. Verbal particles are pre-verbal in neutral sentences in Modern Hungarian (14), and we can observe this pattern as the regular order in Old Hungarian codices as well (15). There are some exceptions, however, which may be relevant for our study.

[7]The investigated six codices are, however, the works of one scribe each, except for the Munich Codex, but even that is mostly attributed to a single person, as there were only two very short segments that were copied by two other people.

(14) **ki**-ment a kertbe, és **el**-aludt
out-go.PST.3SG the garden.ILL and away-sleep.PST.3SG
'He went out into the garden and fell asleep'

(15) De maga mendenestewl **meg** vtaltatott es vÿlagnak keppetewl **el** tauazot
but self completely PRT hate.PASS.PST.3SG and world.DAT image.ABL away leave.PST.3SG
'But it was despised by him completely, and he turned away from the world' (JókC. 2)

In our corpus study of verbal particles, we diverged somewhat from our original plans by analyzing more data, as this category is both the most frequent subtype of VMs and the cornerstone of our diachronic account. Therefore in this case we worked on larger samples, with 200 instances of the verbal particle *meg* from the codices, and 200 particles from Middle Hungarian sources, half of them from trials, half of them from letters. The results are summarized in Table 3 below.

The example in (16) shows a case of a post-verbal particle in a neutral clause; this is a pattern that is remarkable and contradictory to our hypothesis at first sight.

(16) Grusz Péter vallja, hogy valamivel kente volt **meg**
Grusz Péter confess.DEFOBJ.3SG that something.INS rub.PST.DEFOBJ.3SG be.PST PRT
'Peter Grusz confesses that she had rubbed him with something' (KBosz. 24, 1584)

As it seemed intriguing that we found variation in a (somewhat) later period, we sampled the Old Hungarian corpus by a different method as well: we (manually) searched for the first two or (in the case of very near occurrences, i.e., in adjacent clauses within a sentence) three neutral sentences with a particle in each codex, resulting in 114 examples from 47 different sources. As the following Table 4 shows, the results are similar to the Early Middle Hungarian period: these display minimal, yet existing variation.

Table 3. Verbal particles

Source	PRT–V	V–PRT	% of PRT–V
Old Hungarian codices	200	0	100.0%
Middle Hungarian letters	100	0	100.0%
Middle Hungarian trials	97	3	97.0%

Table 4. Verbal particles in Old Hungarian codices

	PRT–V	V–PRT	% of PRT–V
Old Hungarian codices (entire corpus)	111	3	97.4%

Example (17) illustrates the phenomenon under discussion from Old Hungarian. Accidentally, this segment of Gömöry Codex (1516) has a parallel variant in Thewrewk Codex (1531); as (18) shows, both clauses feature a post-verbal particle, suggesting that this construction was grammatically acceptable for the contemporary speakers – or, at least, they did not find it so bad as to correct it while copying.[8]

(17) OO wram ÿesus Emlekezem **megh** Az te elsew vtadon
oh lord.1SG Jesus remember.1SG.PRS PRT the you first way.2SG.SUP
walo zent kenodrol
be.PTCP holy anguish.2SG.DEL
'Oh, my Lord Jesus, I remember your holy suffering on your first journey' (GömC. 2v)

(18) VRam Jesus Emlekezem **megh** az te elso̓ wtadon walo
lord.1SG Jesus remember.1SG.PRS PRT the you first way.2SG.SUP be.PTCP.PRS
zenth kenodrol
holy anguish.2SG.DEL
'My Lord Jesus, I remember your holy suffering on your first journey' (ThewC. 34r)

In order to take a closer look at the post-verbal occurrences of the particle in neutral clauses, we queried the annotated subcorpus of Old Hungarian for all the occurrences of the particle, and also for all of its co-occurrences with a finite but non-subjunctive verb in a V–PRT order. The resulting data are summarized in Table 5. Needless to say, these data do not allow for comparison in and of themselves, but there is one feature that can be thought of as suggesting source-specific differences, and that is the comparison of data from the Munich Codex and from the Jordánszky Codex. Both of these are partial Bible translations, the Munich Codex consisting of the four gospels, and the Jordánszky Codex containing almost the entire New Testament and some parts of the Old Testament. As the data show, particle use is somewhat more frequent in general in the Jordánszky Codex, and their post-verbal placement is disproportionately more frequent in the latter source.

The dataset of post-verbal particles had to be filtered manually as well to exclude non-neutral sentences and other types of irrelevant hits. As expected, this group was quite large: the majority of the post-verbal occurrences were found in questions, negative sentences, and sentences containing

[8]One of our reviewers asked whether the verb forms in (17) and (18) could be interpreted as imperative, i.e., *emlékezzem* with unmarked length of the consonant *z*, in which case the sentences would be non-neutral. It is easier to answer this question in the case of the Thewrewk Codex, most of which – including this particular prayer – was copied by a single scribe. The given verb form occurs several times in this prayer, as it is part of a repeated sentence, but it also occurs several times in the rest of the manuscript. It seems that the unambiguously imperative forms of this verb are either *emlekezzel*, *emlekezyel* or *emlekezzyel*, that is, the imperative forms are always marked in writing, whereas the prayer only contains *emlekezem* or *emlekezeem* ('I remembered'), indicating that there is no trace of the imperative morpheme. The case of the Gömöry Codex is a bit more complicated, as it is the work of several scribes, and the second scribe copied a smaller amount of text, hardly anything other than this prayer. Within this prayer, the verb forms are either *emlekezem* or *emlekezzem*. The intended imperative interpretation of the second form could account for the doubling of the consonant, and even the character string without the double *z* could have the same interpretation with an unmarked length of the consonant. In this case, it is the parallel text of the Thewrewk Codex that suggests that the intended interpretation in the Gömöry Codex is also indicative, given that the prayer is the same.

Table 5. Particles (PRT) and their post-verbal (PostV) occurrences in the Old Hungarian codices

Source	Nr. of tokens	Nr. of PRT	Rate of PRT out of all tokens	PostV PRT	PostV PRT out of all tokens
Jókai	22,244	890	4.0%	77	8.7%
Munich	58,521	3,446	5.9%	267	7.7%
Festetics	19,145	850	4.4%	23	2.7%
Guary	19,864	1,032	5.2%	56	5.4%
Jordánszky	100,294	6,374	6.4%	683	10.7%
Könyvecse	8,783	300	3.4%	30	10.0%
Total	228,851	12,892	5.6%	1,136	8.8%

a pre-verbal focus, all of which had to be discarded. Still, there remained a substantial amount of neutral sentences with post-verbal particles that occurred mostly in the Jordánszky Codex.

This created an opportunity to compare verses from the Munich Codex and the Jordánszky Codex, and we also tried to procure the given biblical verses from the Döbrentei Codex (1510; containing, among other types of religious texts, pericopes as well). When comparing these verses (i.e., those in which at least one of these three sources had a post-verbal particle in a neutral sentence), the two most characteristic patterns were the ones exemplified in (19) and (20), i.e., in which the Munich and the Döbrentei Codex either do not contain a particle, or contain it in the pre-verbal position, whereas the Jordánszky Codex uses particles both more frequently in general and more frequently post-verbally:

(19) a. Iǫuǫ eg nemberi ſamariabol viʒ mèreiteni
come.PST.3SG a woman Samaria.ELA water draw.INF (MunchC. 87va)

b. Iǫve azert azzoń̓ember samariabol vizet mereitenie
come.PST.3SG then woman Samaria.ELA water.ACC draw.INF (DöbrC. 242v)

c. yewe **el** Samariabol egy azzonyallat vyzet mereyteny
come.PST.3SG away Samaria.ELA a woman water.ACC draw.INF (JordC. 633)

d. There cometh a woman of Samaria to draw water (King James Bible, Jn. 4:7)

(20) a. Eſtue leuē ke· iǫuǫ a· tiʒenkettǫuèl
evening be.CONV then come.PST.3SG the twelve. INS (MunchC. 50vb)

b. Est leven kedeg **el** iǫve tizenkettǫvel
evening be.CONV then away come.PST.3SG twelve. INS (DöbrC. 223r)

c. Hogy azert eſtwe let vona, yewe **el** a
that then evening be.PST.3SG be.COND come.PST.3SG away the
tyzenkettǫ́wel
twelve. INS (JordC. 504)

d. And in the evening he cometh with the twelve. (King James Bible, Mk. 14:17)

Neutral sentences with V–PRT word order are associated with a special aspectual reading in Standard Modern Hungarian: they are interpreted either as experiential (21a) or as progressive (21b).

(21) a. A zenész lépett (már) **fel** ezrek előtt.
the musician step.PST.3SG already up thousand.PL in.front.of
'The musician has already performed for thousands of people.'

b. A zenész lépett **fel** a színpadra, amikor megcsörrent a
the musician step.PST.3SG up the stage.SUB when ring.PST.3SG the
telefonja.
phone.POSS.3SG
'The musician was stepping onto the stage when his phone started to ring.'

However, it is fairly obvious that this cannot be so in the Jordánszky Codex. On the one hand, this pattern occurs in contexts with single, episodic events, which rules out an existential reading; on the other hand, it can co-occur with momentaneous verbs, and in their case a progressive reading is highly unlikely. Moreover, the clauses in (22a)–(22b) and (23a)–(23b) represent a chain of events in which the individual events follow one another, and this is a typical context of perfectivity.

(22) a. Iǫuǫ phùlǫp & monda Andoʀiaʃnac Andoʀias & eʃmeg
come.PST.3SG Philip and say.PST.3SG Andrew.DAT Andrew and again
Phùlǫp mondac iᶜnak
Philip say.PST.3PL Jesus.DAT (MunchC. 98vb)

b. Yewe **el** fylep, es mondaa **megh** Andraʃnak, Andraʃ eʃmegh
come.PST.3SG PRT Philip and say.PST.3SG PRT Andrew.DAT Andrew again
fyleppel mondak **megh** Jeʃuʃnak.
Philip.INS say.PST.3PL PRT Jesus.DAT (JordC. 671)

c. Philip cometh and telleth Andrew: and again Andrew and Philip tell Jesus. (King James Bible, Jn. 12:22)

(23) a. Iǫuǫ iᶜ & allapec a· taneituaǹocnac kǫʒǫttǫc &
come.PST.3SG Jesus and stop.PST.3SG the disciple.PL.DAT between.3PL and
mōda ǫnèkic
say.PST.3SG to.them (MunchC. 107ra)

b. yewe **el** Jeʃus, alla **megh** kǫ́ztǫ́k, es monda
come.PST.3SG PRT Jesus stand.PST.3SG PRT between.3PL and say.PST.3SG (JordC. 699)

c. [Then the same day at evening (...)] came Jesus and stood in the midst, and saith unto them, (King James Bible, Jn. 20:19)

4.1.2. Former diachronic proposals. The dynamic variation and evolution of verb modifiers has been a reoccurring focus of discussion in Hungarian diachronic linguistics. It has long been recognized that the group of verb modifiers is heterogeneous, and there is a shift throughout the history of Hungarian towards a more and more consistent pre-verbal placement of these elements in neutral sentences (Molecz 1900). Zooming on post-verbal particles, this pattern (neutral sentences with post-verbal particles without the progressive/experiential readings) has been investigated both from a synchronic aspect (how and why they occur in dialects) and diachronically (focusing on their distribution in older texts and also on the issue of their emergence). A number of approaches have developed to account for the phenomenon; in what follows, we try to summarize the main findings that are relevant from the point of view of the present discussion.

One line of reasoning suggests that this phenomenon is an archaic feature of certain sources or dialects. It can either be due to the categorial features of the particles (those being more similar other non-stressed adverbs, Szarvas 1874) or to an original distinction between sentences with different information structure (narrow focus on the particle vs. broad focus) that was later obscured by other changes (Simonyi 1884). The other train of thought regards the post-verbal placement of verb modifiers as a contact-induced innovation (the source language would be Latin), and the fact that even particles can occur post-verbally shows that the borrowed pattern was used so frequently with other types of verb modifiers that it was eventually extended to this category as well (Kicska 1891). These two types of proposals (archaism or contact-induced innovation) were complemented with a third type in the more recent literature.

Focusing on the Érdy Codex, Wacha (1999, 184) mentions that it seems to be frequent that the focus position is empty, and yet the particle is post-verbal. This phenomenon is especially frequent in sentences that introduce new texts, for instance pericopes (as in (24)). Wacha suggests that this word order pattern could also have the function of presenting an unexpected turn of events.

(24) Ez maÿ zent Epistolaat ÿrtta **meg** zent paal Apostol
this today's holy epistle.ACC write.PST.DEFOBJ.3SG PRT Saint Paul apostle
Romaÿaknak ÿrth leweleenek tÿzenharmad rezeeben
Roman.PL.DAT write.PTCP letter.POSS.DAT thirteenth part.POSS.INE
'Today's holy epistle was written by Saint Paul Apostle in the 13th part of his letter written to the Romans' (ÉrdyC. 3b)

Peredy (2011) builds on clauses functionally similar to (24) when developing the claim that neutral sentences with post-verbal particles have a distinct interpretation in the Jókai Codex, that is, this placement cannot be due to random variation (which, in turn, would be due to the still ongoing adverb > particle grammaticalization process, similarly to the suggestion put forward by Szarvas).

She proposes that in the case of telic events, the position of the particle encodes viewpoint aspect in Standard Modern Hungarian via the mediation of information structure. In neutral clauses with a particle in the immediately pre-verbal position (which is a position dedicated to elements expressing new information), it is the attainment of the endpoint of a situation that is asserted, and such clauses have a perfective reading. As opposed to this, clauses with post-verbal particles do not assert the attainment of a limit, and get an imperfective interpretation.

However, neutral clauses with post-verbal particles were interpreted differently in the language variant represented by the Jókai Codex according to Peredy. She supports this claim by pointing out that particles void of lexical meaning do not occur in a V–VM pattern in Standard Modern Hungarian, i.e., speakers use atelic verbs in imperfective (progressive) contexts (25a). As opposed to this, particles that only encode telicity are not excluded from this configuration in the Jókai Codex (25b).

(25) a. Boldog Ferenc éppen feddte a barátokat, amikor […]
blessed Francis just scold.PST.DEFOBJ.3SG the friar.PL.ACC when

b. Mykoron bodog ferencz fegye meg az baratokot
when blessed Francis scold.PST.DEFOBJ.3SG PRT the friar.PL.ACC
'When Blessed Francis was scolding the friars' (Peredy 2011, 196, originally (35b) and (35a))

Peredy proposes that such clauses in the Jókai Codex are not imperfective, but aspectually neutral. Another phenomenon that supports this proposal is the pattern of occurrence of such clauses. Aspectually neutral clauses are likely to introduce sequences of events, therefore they are expected to appear in titles, and Peredy indeed finds that the given V–PRT clauses of the Jókai Codex are either titles or first sentences of a new narrative segment. The two options (post-verbal placement encoding neutral aspect or imperfective aspect) are not mutually exclusive, that is, these can co-occur in a dialect, but in the case of the Jókai Codex, imperfective was encoded via the tense system.

Neither Wacha's nor Peredy's findings can be applied automatically to the Jordánszky Codex, that is, that source in our Old Hungarian corpus that uses the V–PRT pattern in neutral clauses with some frequency. On the one hand, the frequently occurring, formulaic sentence type exemplified by (24) occurs in a different form, as in (26), and as this type probably involves a structural focus (*itt* 'here'), it is irrelevant from the point of view of the present discussion.

(26) Eth kezdetyk el zent peter apoſtolnak epiſtolaÿ
here begin.PASS.3SG away Saint Peter apostle.DAT epistle.POSS.PL
'Here begin Saint Peter apostle's epistles' (JordC. 830)

On the other hand, the V–PRT order occurs in more varied contexts, surfacing in several clauses of a chain of events, which may all be categorical statements, predicating about a topical subject, as in (23b). Besides, there seems to be some random variation at work as well. A parallel version of this example occurs a couple of verses later in a slightly altered form (27a), i.e., with the second particle in its canonical, pre-verbal position.

(27) a. Yewe el Jeſus ayto be teewen, es **megh** alla hŵ
come.PST.3SG PRT Jesus door PRT put.CVB and PRT stand.PST.3SG they
kóztek, es monda. (JordC. 699)
between.3PL and say.PST.3SG

b. then came Jesus, the doors being shut, and stood in the midst, and said (King James Bible, Jn. 20:26)

It seems that sources differ with respect to the usage patterns of neutral V–PRT, and, therefore, we venture to give only a tentative explanation for this phenomenon, which integrates a number of findings from the above cited literature. Narrowing our focus first on the Jordánszky Codex, perhaps several occurrences of the neutral V–PRT pattern can indeed be seen as more archaic in the sense that the post-verbal element is not a grammaticalized particle in the grammar of some speakers, and as such, it patterns with other directional complements (see section 4.2 below) in the case of which movement is optional in this period. The Jordánszky Codex contains many such clauses as (28a) in which the predicate is a verb expressing motion, its directional argument is post-verbal, but there is also a post-verbal particle, and neither of them is moved to the VM position. It is interesting to compare this to example (28b) taken from the Munich Codex, in which the particle occurs pre-verbally.

(28) a. es mene **ffel** Jeſus Jerwſalemben
and go.PST.3SG up Jesus Jerusalem.INE (JordC. 637)

b. & **fe**l-menè i^{c} ihʀlm̄bè
and up-go.PST.3SG Jesus Jerusalem.ILL (MunchC. 88vb)
'and Jesus went up to Jerusalem.' (King James Bible, Jn. 5:1)

It seems to be generally true of the Jordánszky Codex that it prefers to encode the telicity of an event with the use of a particle; however, as argued before, the post-verbal placement of that particle does not alter the default aspectual interpretation, that is, perfectivity. The following set of sentences includes a modern Hungarian translation as well, and it can be seen that whereas the perfective interpretation lacks the aid of a particle in the modern variant (29c), in the Jordánszky Codex (29b), is explicitly marked with a particle, which is, again, post-verbal.

(29) a. & èlueuē takara golčba
and away.take.CONV cover.PST.DEFOBJ.3SG linen.ILL (MunchC. 83va)

b. Es le veven, takara **be** hw̋teth gyoczban
and down take.CONV cover.PST.DEFOBJ.3SG into he.ACC linen.INE (JordC. 615)

c. Aztán levette, gyolcsba göngyölte
then down.take.PST.DEFOBJ.3SG linen.ILL roll.PST.DEFOBJ.3SG (Káldi-Neovulgáta 1195)

d. And he took it down, and wrapped it in linen, (King James Bible, Lk. 23:53)

Verbs in such contexts carry stress, and as such, are more prominent. It can well be the case that this prominence is interpreted as signaling an unexpected turn of events, but we find it difficult to substantiate this claim, at least in the case of the Jordánszky Codex; still, it is possible that this stress pattern had some specific function(s) for contemporary speakers.

4.1.3. Exaptation behind the variation. Ultimately, we suggest that what we witness here is a case of exaptation. The V–PRT pattern is a marginal one even in the case of the Jordánszky Codex (in which its relative frequency seems to be the highest among the investigated sources). Exaptation, as Lass (1990) put it, is basically repurposing "linguistic junk", forms that for some

reason or other are void of function. To quote Haiman (2017, 52), it is "the promotion of meaningless or redundant material so that it does new grammatical (morphosyntactic or pohonological) or semantic work." We suggest that this definition can also be extended to syntactic patterns that are on the way to becoming obsolete: in this case, speakers associate the V–VM pattern in neutral clauses with some novel function, and, concomitantly, a novel syntactic analysis.

As Haiman (2017) points out, the process of exaptation differs fundamentally from grammaticalization in being stochastic and opportunistic. There are no paths in this case, the course of change is not predictable; to quote Haiman again, "except in hindsight there is no real telling what creative uses may be made of junk" (ibid. 66). The marginal instances of neutral sentences with a post-verbal particle seem to open up an opportunity for their repurposing, but the three sources that were investigated so far (the Érdy Codex by Wacha, the Jókai Codex by Peredy, and the Jordánszky Codex above) appear to represent different avenues, and they all differ from the outcome seen in Modern Hungarian. It is a prerequisite for the recruitment of the V–PRT pattern to encode progressivity that the PRT–V pattern should be very strongly associated with the perfective reading. As the examples above show, the language variant represented by the Jordánszky Codex does not represent such a setting, its V–PRT patterns can clearly have a telic-perfective reading (22b, 23b, 27a, 28a, 29b). Additionally, Old Hungarian featured a complex tense system in which there was a separate tense form to encode imperfectivity in the past (see e.g., Abaffy 1992, 156–160). As long as this system prevailed, i.e., as long as viewpoint aspect could be encoded via the complex tense system (É. Kiss 2006), the exaptation of the V–PRT pattern to encode imperfectivity is not expected.

4.2. Directional complements of motion verbs

Motion verbs that take goal-denoting directional complements obligatorily form a complex predicate with them in Modern Hungarian, i.e., these directional complements are VMs (30).

(30) a. Péter **mozi-ba** megy.
Peter cinema-ILL go.3SG
'Peter is going to the cinema.'

b. A gyerekek **a** **nagymamá-hoz** mennek.
the child.PL the grandma-ALL go.3PL
'This children are going to grandma.'

Turning to the situation in earlier stages, the data in Table 6 below summarize the occurrences of a frequent (and fairly basic) verb of motion, *megy* 'go'. The queries of the two corpora targeted

Table 6. Motion verb and directional complement

Period	DIR–V	V–DIR	% of DIR–V
Old Hungarian	26	75	25.7%
Early Middle Hungarian	74	13	85.1%

the non-subjunctive occurrences of this lemma, but the concordances had to be filtered manually in order to get homogeneous datasets that were comparable. We only retained those hits in which the motion verb had a directional complement containing a lexical nominal and expressing the spatial endpoint of movement. We excluded those cases as well in which there was both a verbal particle and a directional complement in the post-verbal domain; such instances were briefly mentioned in 4.1.2 above.

The pattern seen in the above data contrasts strikingly with the pattern seen in the case of particles, even though verbal particles originate as directional elements encoding the endpoint of motion. First, whereas particles seem to be rather stable, with the VM–V pattern being near-categorical in both periods, in the case of directional complements there is a remarkable shift towards more consistent pre-verbal placement. Second, and in spite of this shift, pre-verbal placement of directional phrases is still not categorical in Early Middle Hungarian, i.e., lexical directional phrases are less consistently moved to the pre-verbal position.

Out of the 101 Old Hungarian examples, we could compare the word order patterns with the Latin sources in 80 cases.[9] Table 7 summarizes the word order of the Hungarian translations and their Latin sources.

As the table shows, post-verbal placement matches the Latin original (as in (31c) and its Hungarian equivalents (31a) and (31b)) in the majority of cases (77.5%).[10] Therefore, one could easily jump to the conclusion that what we witness is not a shift, but simply the presence or absence of a V–DIR pattern to copy, i.e., we are dealing with interference.

(31) a. & mene **egiptom-ba**
and go.PST.3SG Egypt-ILL (MunchC. 9ra)

b. es nyomotek **egiptom-ban**
and go.PST.3SG Egypt-INE (JordC. 359)

c. et secessit in Aegyptum

d. and departed into Egypt (King James Bible, Mt. 2:14)

However, we argue that there are more factors at play in the case of the placement of directional complements. First of all, as mentioned above, the proportion of post-verbal directional arguments is not negligible in Early Middle Hungarian sources, and it also occurs in direct quotes

Table 7. Latin vs. Hungarian: directional complements

	Hungarian V–DIR	Hungarian DIR–V
Latin V–DIR	62	**11**
Latin DIR–V	**6**	1

[9]The printed edition of the Jókai Codex contains the Latin sources of the Hungarian text, and the Latin source of the two Bible translations in the Munich Codex and the Jordánszky Codex is the Vulgate.

[10]Note that (31b) was not included in Tables 6 and 7, as it does not contain *megy* but a synonymous motion verb.

from the witnesses of trials, (32). Even though Latin is omnipresent, it is far less likely to affect word order choices in this context, so it cannot simply be Latin interference.

(32) Menék **a** **fiam-hoz**, hát ott vagyon egy Gergely bíró
go.PST.1SG the son.POSS.1SG-ALL alas there be.3SG a Gregory judge
'I went to my son, alas, there is a certain judge Gregory there […]' (KBosz. 24, 1584)

In addition, it is instructive to look at examples that diverge from the Latin original (highlighted in bold in the table). Even though it is a very small set of sentences, source-specific differences are still remarkable. Whereas in the two Bible translations (Munich Codex, Jordánszky Codex) the only type of mismatch is when a Latin V–DIR pattern (33b) is rendered as DIR–V in the translation (33a), the Jókai Codex features both types, and four instances out of its six mismatches are in the opposite direction, i.e., translating a Latin DIR–V (34b) pattern as V–DIR (34a).

(33) a. **haz-ba** meent vona
house-ILL go.PST.3SG be.COND (JordC. 485)

b. Et cum introisset in domum

c. And when he was come into the house (King James Bible, Mk. 9:28)

(34) a. mene **bolonÿa-ba**
go.PST.3SG Bologna-ILL (JókC. 20)

b. Bononiam adiit

c. 'And he went to Bologna.'

There are also a couple of instances in which the Latin original and the Hungarian translation could not be compared in a direct way (for various reasons). These show the same pattern: the Jordánszky Codex prefers to use the DIR–V pattern (35a), whereas in the Jókai Codex there are instances of both patterns, i.e., it also uses V–DIR in such cases when there is no obvious Latin pattern to follow.

(35) a. es **mezze** **vtt-ra** mene
and far road-SUB go.PST.3SG (JordC. 495)

b. et peregre profectus est

c. and went into a far country. (King James Bible, Mk. 12:1)

(36) a. ez felewl mondot negÿuen napokban frater leo mene **veternÿe-re**
this above said forty day.PL.INE friar Leo go.PST.3SG vesper-SUB (JókC. 42)

b. quod in supradicta quadragesima frater Leo semel ad matutinum

c. 'And during those above mentioned forty days Friar Leo went to the vespers'

It needs to be mentioned that weight can also be a factor affecting movement: whereas particles are light elements, directional complements vary in this respect, and they can also be (very) heavy, an extreme example being (37a), in which the directional is modified with a finite relative clause.

(37) a. Ezen vttal mene Jeſus **az varaſ-ban,** kynek newe
this.SUP road.INS go.PST.3SG Jesus that city-INE who.DAT name.POSS
Naym
Naim (JordC. 543)

b. And it came to pass the day after, that he went into a city called Nain (King James Bible, Lk. 7:11)

A final, more general consideration is of typological nature. Comparative studies of OV languages showed that out of various verb complements and adjuncts, goals of motion verbs are the most likely to occur post-verbally (Stilo 2018; Haig 2022), and an investigation of two variants of SOV Khanty showed that goals are similarly exceptional in these variants (Gugán & Sipos 2017). This implies that these directional phrases could already have been post-verbal with some frequency prior to the OV>VO change. In this respect lexical directionals contrast with verbal particles, which are not post-verbal on their own in OV languages.[11] This difference can account for the asymmetrical data we find.

Therefore, we suggest that in the case of directional complements of motion verbs, Latin sources may have had the effect of increasing the frequency of the post-verbal occurrences, but this cannot fully account for the presence of this pattern in neutral sentences. Post-verbal directional complements could probably also occur prior to the OV>VO change by rightward extraposition of the PP, and their post-verbal position became their default position after change in basic word order. Moving them into the pre-verbal position was not categorical even in Early Middle Hungarian, but (similarly to what was the case with verbal particles) their post-verbal placement does not seem to be associated with a special aspectual interpretation in the periods under investigation.

4.3. Dative and translative(-essive) marked secondary predicates

Secondary predicates that appear with verbs that are lexically equivalent or closely related to English *consider*, as in (38), are marked with the dative case in Hungarian (39). These secondary predicates can be adjectival or nominal in English, and the complement of the dative marker can equally be an adjectival or a nominal constituent in Hungarian, as well.

(38) Paul considers you crazy / an idiot / his friend.

(39) Pál **őrült-nek** / **egy idiótá-nak** / **a barátjá-nak** tart téged.
Paul crazy-DAT an idiot-DAT the friend.POSS.3SG-DAT consider.3SG you.ACC
'Paul considers you crazy / an idiot / his friend.'

[11] As mentioned in Section 2.3, the post-verbal placement of English particles is taken to be indicative of when the language changed its head-final property, exactly because particles are not postponed.

The translative(-essive) case is used with secondary predicates to express a change of state with an endpoint, typically with verbs such as the equivalents of *become*, *turn into* and others with similar lexical semantics (40). The form is *-vá/vé* or *-Cá/-Cé* when the consonant assimilates to the final consonant of the stem (for recent synchronic description see Dékány & Hegedűs 2021).[12]

(40) a. A szél **viharos-sá** vált.
the wind stormy-TRE turn.PST.3SG
'The wind became stormy.'

b. A víz **bor-rá** változott.
the water wine-TRE change.PST.3SG
'The water turned into wine.'

All of these constructions share the property in Modern Hungarian that the dative-marked or the translative(-essive) marked secondary predicate is pre-verbal in neutral sentences, irrespective of the lexical category to which the case marker is attached. Since these are secondary predicates, the assumptions about VMs forming complex predicates with the verb extend to them naturally.

In the earlier periods, we found word order variation, there were cases where neutral sentences involved the secondary predicate following the verb. Due to the low number of relevant data in the corpora, we extended our corpus queries for the whole Middle Hungarian period for these secondary predicates, contrary to our practice in most other cases. Table 8 provides a summary of our findings. What we can see is that there is a significant variation in the older texts, but by the Middle Hungarian period, post-verbal order becomes minimal.

We looked at several semantically related verbs in the corpus queries for the *consider*-type construction. For Old Hungarian, these were the verbs *alít* 'consider, believe', *hisz* 'believe', and *ítél* 'judge, claim'. For Middle Hungarian, this is supplemented with *ismer* 'know (as)', which also has relevant uses, and with a new lexical item *tart* 'consider, hold, keep'.[13] For the resultative

Table 8. Secondary predicates with DAT and TrE

Period	DAT/TrE–V	V–DAT/TrE	% of DAT/TrE–V
Old Hungarian	70	21	76.92%
Middle Hungarian	298	21	93.41%

[12]We must note that the more general resultative case is the sublative, but since that one is also very productively used as a spatial suffix encoding the meaning 'onto', it is much harder to find the relevant data in our corpora. This is why we restricted the scope of our corpus study to the translative(-essive), despite the fact that it reduces the size of our sample.

[13]For both periods, we also looked into two more verbs, the equivalents of the English verbs *call* and *name*, and we found some variation in the word order patterns. However, in the end we decided to exclude those verbs, due to the fact that several factors were involved that confounded our filterings: many of them included proper names (which are difficult when it comes to predicate-like properties), many of them were within relative clauses (often with verb-initial orders), and most importantly, many of them seemed to mirror the Latin texts.

secondary predicates, we searched for the occurrences of the case marker and then manually filtered the data to only include the relevant ones. In both cases, we manually filtered the neutral sentences taking into consideration the textual context as well.

For Old Hungarian, we made a comparison with the Latin text in those texts where it was possible. Out of the 91 Old Hungarian examples, only 47 occurrences of either dative or translative(-essive) secondary predicates had corresponding, structurally comparable Latin constructions, and the results of the comparison are given in Table 9. Most of the cases involve the same order in Hungarian and Latin. Interestingly there are 9 cases in which Hungarian clause has the secondary predicate immediately before the verb, going against the Latin order where the corresponding constituent is post-verbal.

The 9 cases where the Hungarian text has a pre-verbal order contrary to the Latin one mostly involve resultative secondary predicates (8 out of 9), and most of them come from the Jordánszky Codex (7 out of 9). There is one case from the Jókai Codex, which involves an adjectival resultative (41a), and one case from the Munich Codex has a nominal resultative pre-verbally where the Latin text includes a post-verbal nominal (42a).

(41) a. Mert vr ÿsten mÿeretewnk magat **zegen-ne** tewe ez vÿlagban
because lord god we.for.1PL self.ACC poor-TRE do.PST.3SG this world.INE
'Because the Lord made himself poor for us in this world.' (JókC. 82)

b. quia Dominus pro nobis se fecit pauperem in hoc mundo

(42) a. o̧tet **kiral'-l'a** tènnec
he.ACC king-TRE do.COND.3PL (MunchC. 90va)

b. et facerent eum regem

c. to make him a king (King James Bible, Jn. 6:15)

Datives are rather consistent in being pre-verbal, there is only one post-verbal order: in this case from the Jókai Codex, a dative-marked nominal is post-verbal (43). Most of the post-verbal occurrences involve the resultative case. Out of the 21 post-verbal ones, 20 cases involve the resultative case (but they are contrasted with 57 pre-verbal resultatives), and only few of the post-verbal ones are adjectival. What seems to be behind some of the variation can be thought of as the "heaviness" of the phrase, as two of the post-verbal adjectives have clausal complements immediately following the adjectival head (44).

Table 9. Latin vs. Hungarian: secondary predicates

	Hungarian V–DAT/TrE	Hungarian DAT/TrE–V
Latin V–PRED	18	**9**
Latin PRED–V	**0**	20

(43) a. Es az az kyt en aloytok **nagÿ** **kencz-nek**
and that that who.ACC I consider.1SG big treasure-DAT
'and I consider that a great treasure' (JókC. 130/25)

b. Et hoc reputo magnum thesaurum

(44) ysten teged tezen **olÿa** hogÿ aldottak kezt lez azonkeppen aldot
God you make.3SG such.TRE that blessed.PL among be.2SG that.way blessed
'God will make you such that you will be blessed among the blessed' (JókC. 33/21)

As for the data and variation in Middle Hungarian, we have to note the appearance of the verb *tart* 'consider, hold, keep' in the relevant meaning. The 'consider' meaning of the verb is claimed by the Etymological Dictionary to have appeared in the 15th century (in the Vienna Codex, after 1416/c. 1450; Gerstner 2022). However, it was certainly much less prominent in Old Hungarian in this syntactic context, and is, thus, missing from the morphologically annotated data of the relevant type for the early texts. It is very dominant by the Middle Hungarian period, so the Middle Hungarian dataset includes many occurrences of the dative secondary predicate with this verb (and it is the most prominent verb in the relevant meaning today). It is frequent in the text from witch trials, with many of the tokens appearing in recurring (set) phrases, but it appears in the other text types as well. This verb has adjectives or common nouns as its predicative complement (45)–(47). There is some word order variation in neutral sentences (47), although almost all V–VM orders are from one, generally atypical, source.

(45) hogy magát még nem ismeri, hanem igen **jónak**
that self.ACC yet not know.DEFOBJ.3SG but very good.DAT
tartja.
consider.DEFOBJ.3SG
'that he doesn't know himself yet but considers himself very good' (Bark. 190, 1708)

(46) Közhírül is **boszorkány-nak** tartatik Vásárhelyen
publicly too witch-DAT consider.PASS.3SG Vásárhely.SUP
'She is also considered a witch publicly in Vásárhely' (Bosz. 101, 1756)

(47) de tartanám **szerencsém-nek**, ha hozzá való
but consider.COND.DEFOBJ.1SG luck.POSS.1SG-DAT if to.3SG be.PTCP
materiálékat készen találhatnék
material.PL.ACC ready find.COND.1SG
'but I would consider it my luck if I could find materials suitable for it' (Kár. 130, 1712)

(48) de a többit, kit gondolhattam **igaz-nak**, s kit nem.
but the other.ACC who.ACC think.POT.PST.1SG true.DAT and who.ACC not
'but the rest, some of which I could consider true, some I couldn't' (Bark. 34, 1705)

With respect to the resultative secondary predicates, the Middle Hungarian data only contains 4 cases of post-verbal orders in neutral sentences (in contrast with 198 pre-verbal ones). Two of

the four post-verbal ones involve an adjectival complement, as in (49), which contains a clausal complement, and two of them involve nominal ones, as in (50), with a modified noun.

(49) és változott **ojjan-ná** mint a téjj
and change.PST.3SG such-TRE like the milk
'and she turned similar to milk' (Bosz. 328, 1751)

(50) Változtam szamlalhatatlan sokszor **oktalan** **állat-tá**
change.PST.1SG countless many.times mindless animal-TRE
'I turned into a mindless animal countless times' (Bosz. 103, 1758)

In sum, *consider*-type secondary predicative structures with the dative case and resultatives with the translative(-essive) case show some variation in Old Hungarian and much less in Middle Hungarian. The factors that we have to take into account are the lexical category of the case-marked predicate, with nominal and heavy ones being more likely to appear post-verbally in Old Hungarian, and the heaviness of the predicate, since the presence of a complement clause may influence the word order of the predicate as well.

4.4. Bare nominal objects

Bare nominal internal arguments behave as VMs in Modern Hungarian, they are systematically pre-verbal in neutral sentences (see Komlósy 1992, 1994; Farkas & de Swart 2003). This is equally the case with bare singular and plural objects (51a)–(51b) and with bare unaccusative subjects (51c).

(51) a. Mari **könyv-et** olvas.
Mary book-ACC read.3SG
'Mary is reading a book.'

b. A gyerekek **állat-ok-at** rajzolnak.
the child.PL animal-PL-ACC draw.3PL
'The children are drawing animals.'

c. **Víz** ment a szemembe.
water go.PST.3SG the eye.POSS.1SG.ILL
'Water got into my eye.'

This word order pattern has been typical since the earliest written records, but variation does occur in the corpora. In the corpus queries, we limited the search to objects, as accusative marking served as the formal feature that facilitated the search. We adopted a strict filtering process, including only bare, non-modified singular objects in the analysis to avoid potential confounding effects from modification or plurality.

Table 10 contains those data from our corpus search in which the object met these selection criteria. It needs to be mentioned, however, that the various source texts differ greatly in their object placement: the percentage of pre-verbal placement of bare nominal objects ranged from 39.4% to 96.6% across the texts.

Table 10. Bare nominal objects

Period	O–V	V–O	% of O–V
Old Hungarian	101	49	67.3%
Early Middle Hungarian	190	10	95.0%

In the case of bare nominal objects, interference as a factor comes into the forefront, as the comparison of the Old Hungarian and the Early Middle Hungarian data shows that there is hardly any variation in the latter period, i.e., pre-verbal placement is nearly categorical in the subgroup that has much less direct Latin influence in its background. Of the 150 Old Hungarian examples, we were able to directly compare the word order patterns with the Latin sources in 73 instances (Table 11); in 80.8% of these examples, the placement of the object in the Hungarian translation follows the Latin original.

Again, it is instructive to compare the data from the individual codices. When the Bible translations (MunchC., JordC.) diverge from the Latin original, it is in favor of putting the object into the pre-verbal position (52a)–(52b). On the other hand, where there is no Latin pattern, the bare object is pre-verbal (53a)–(53b).

(52) a. Mikor azert **alamiſna-t** tèndèz
when then alm-ACC do.FUT.2SG (MunchC. 12ra)

b. Mykoron azert **alamyſna-t** teez”
when then alm-ACC do.2SG (JordC. 369)

c. Cum ergo facis eleemosynam

d. Therefore when thou doest thine alms (King James Bible, Mt. 6:2)

(53) a. & ki az èlhagottat vendi **tǫruen-t** tǫr
and who the away.left.ACC take.FUT.DEFOBJ.3SG law-ACC break.3SG (MunchC. 11va)

b. es ky el hagyottat hozya vezen, **tǫ́rwen-t** thǫ́r
and who away left.ACC ALL.3SG take.3SG law-ACC break.3SG (JordC. 367)

c. et qui dimissam duxerit, adulterat.

d. and whosoever shall marry her that is divorced committeth adultery (King James Bible, Mt. 5:32)

Table 11. Latin vs. Hungarian: bare nominal objects

	Hungarian V–OBJ	Hungarian OBJ–V
Latin V–OBJ	**29**	**9**
Latin OBJ–V	**5**	30

The Jókai Codex differs remarkably: all the five instances of rendering a pre-verbal Latin object post-verbally in Hungarian stem from this source (54a).

(54) a. Dehogÿ mÿkoron keres uala **kener-t** assysyaban
but.that when search.3SG be.PST.3SG bread-ACC Assisi.INE
'But when he was looking for bread in Assisi' (JókC. 60)

b. Quum vero per Assisium panem quaeraret

There are also instances from these three sources in which the Hungarian translation is not directly comparable to the Latin original. In these cases, all sources prefer the O–V pattern, but two of them (JókC., MünchC.) also feature examples of the non-moved, i.e., V–VM pattern (55a).

(55) a. Ki ke mondād **iǵė-t** ſcèntlelèc èllèn
who then speak.FUT.3SG verb-ACC Holy.Ghost against (MunchC. 18va)

b. qui autem dixerit contra Spiritum Sanctum

c whosoever speaketh against the Holy Ghost (King James Bible, Mt. 12:32)

Given that bare nominal objects are non-referential, these were supposed to occur categorically in the pre-verbal domain prior to the OV > VO change, as there is no motivation for their rightward extraposition. They are also categorically pre-verbal in Modern Hungarian, but this position is a derived one, as in the case of all verbal modifiers. The data above seem to reflect on a period of instability in which they could either pattern with other non-referential, moved arguments or with referential objects. Some of this variation surfaces in Middle Hungarian data as well (56).

(56) Egykor Pap Lukácsné kér vala tőlem **vaj-at**, és nem
one.time Pap Lukácsné ask.3SG be.PST.3SG from.me butter-ACC and not
adék. Ismét ezután kér vala tőlem **pénz-t**, és nem
give.PST.1SG again this.after ask.3SG be.PST.3SG from.me money-ACC and not
adék […]
give.PST.1SG
'At one time, Lukácsné Pap asked me for butter, but I didn't give her. Again, later on she asked for money, and I didn't giver her.' (Bosz. 15, 1591)

Whether such patterns can be seen simply as archaic remnants, or as remnants that may have started to develop a new function remains an open question. Still, such examples are marginal in Early Middle Hungarian, that is, the movement of bare nominal objects to the pre-verbal VM position became categorical by then.

4.5. Adjectival and nominal predicates of copular clauses

Hungarian copular clauses exhibit a word order in which the non-verbal predicate precedes the verbal copula in neutral sentences.[14] This is illustrated in (57) for Modern Hungarian.

(57) a. Péter (nagyon) **okos** volt.
Peter very smart be.PST.3SG
'Peter was (very) smart.'

b. Anna (remek) **tanár** volt.
Anna excellent teacher be.PST.3SG
'Anna was a(n excellent) teacher.'

In the case of copular clauses in our corpora, the post-verbal pattern basically disappears by Early Middle Hungarian as we show in Table 12. The situation with these is similar to the case of bare nominal objects in that there are significant differences between the Old Hungarian codices, the rate of the NP/AP–COP pattern ranges between 20.0% and 86.7%.

The numerical data above originate from neutral clauses, but in the case of nominal predicates it is sometimes difficult to judge in written texts whether a clause is truly neutral. The sentences below are all very similar to each other with respect to their predicates, and sometimes the word order is also the same, but they are interpreted differently. The first pair ((58a)–(58b)) can be seen as a VM–V arrangement in a neutral clause.

(58) a. Ha **iſtènnec** **fia** vag
if God.DAT son.POSS.3SG be.2SG (MunchC. 10ra)

b. Ha **Iſtennek** **ffya** vaḡ
if God.DAT son.POSS.3SG be.2SG (JordC. 362)

c. Si Filius Dei es

d. If thou be the Son of God (King James Bible, Mt. 4:3)

Table 12. Copular clauses

Period	NP/AP–COP	COP–NP/AP	% of NP/AP–COP
Old Hungarian	82	55	59.9%
Early Middle Hungarian	164	3	98.2%

[14]The copula is missing (or covert) in present tense indicative mood with 3rd person subjects and nominal or adjectival predicates, thereby limiting the possibilities in our corpus search, where the first requirement was the presence of the verbal element.

The example in (59b) displays the same arrangement, and yet the sentence is probably not neutral: it is quite likely that the pre-verbal element is focused. (59a) and (59b) occur in the context where the disciples see Jesus walking on water and stopping the wind, which makes them believe that he is indeed the son of God. While in (59a) it is only the possessor that is moved into the focus position, in (59b) probably the entire possessive construction is focused, that is, although the word order is VM–V as in neutral sentences, the sentence is probably different from neutral sentences structurally in featuring a pre-verbal structural focus.

(59) a. biʒoń **iʃtenn**^{c} vag **fia**
surely God.DAT be.2SG son.POSS.3SG (MunchC. 21va)

b. Byzō **yʃtennek** **ffya** vaǧ te
surely God.DAT son.POSS.3SG be.2SG you (JordC. 400)

c. Vere Filius Dei es.

d. Of a truth thou art the Son of God. (King James Bible, Mt. 14:33)

The sentences in (60a) and (60b) are answers to a question. In the context, Jesus asks the disciples who the people think he is, and who they think he is (Mt. 16:15: "Whom say ye that I am?"); the examples show Peter's answer. This suggests that in these sentences the nominal predicate is focused, but it is focused post-verbally. There are quite a few such examples in which it was almost impossible to judge whether the predicative element is focused or not, especially given the possibility of post-verbal foci.

(60) a. Te vag **x**^{c} elọ iʃtènn^{c} fia
you be.2SG Christ live.PRS.PTCP God.DAT son.POSS.3SG (MunchC. 22vb)

b. Te vaǧ **a** **Criʃtus** eelọ́ Iʃtennek ffya
you be.2SG the Christ live.PRS.PTCP God.DAT son.POSS.3SG (JordC. 405)

c. Tu es Christus, Filius Dei vivi.

d. Thou art the Christ, the Son of the living God. (King James Bible, Mt. 16:16)

After excluding the sentences that possibly include a focus and, thus, looking at only the neutral sentences, the word order variation we find in the Old Hungarian data can still be due to the interplay of several factors. On the one hand, nominal predicates seem to be more frequently post-verbal than adjectival predicates. For instance, in the source in which VM movement seems to be the most consistent in the case of copular clauses, only nominal predicates occur post-verbally, cf. (61)–(62).

(61) nam en **te** **zeretọd** vaǧok
lo I you lover.POSS.2SG be.1SG
'Lo, I am your lover.' (Könyv. 10r)

(62) Merth te vaǵh **az** **en** zeretọm
because you be.2SG the I lover.POSS.1SG
'Because you are my lover.' (Könyv. 10r)

Out of adjectives, those that are modified or are heavy for other reasons (e.g., coordination) seem to be more likely to remain post-verbal (63a).

(63) a. Es mikeppen az scent appastalak voltak **mend ez vilagnak**
and as the holy apostle.PL be.PST.3PL all this world.DAT
czudalatosok es zent lelekuel tellesek
wonderful.PL and holy soul.INS full.PL
'And as the holy apostles were wonderful for all the world and full of the Holy Spirit' (JókC. 1)

b. Et sicut illi sancti apostoli fuerunt toti mundo admirabiles et pleni Spiritu sancto

The effect of Latin as a contact language cannot be excluded, either (cf. (63a)–(63b)); in fact there are striking examples of pattern borrowing. Copula drop in present tense indicative 3rd person seems to have been an invariable property of Hungarian at least since the beginning of its documented history, but there are some examples in the Guary Codex in which there is an overt copula in this grammatical context as well.

(64) Harmad testi martirumsag **vagon** ifiusagnac ideien valo tiztasag
third bodily martyrdom be.3SG youth.DAT time.POSS.SUP being cleanliness
tartas
keeping (GuaryC. 75)
'The third bodily martyrdom is to keep to chastity during the juvenile years' (GuaryC. 75)

Table 13 summarizes the results of comparing the word order of those 64 Latin sentences to their Hungarian equivalents in the case of which such a comparison was possible. As the table shows, the rate of matching patterns is as high as 87.5%, and in most of the cases when the Hungarian translation diverges from the Latin original, it is in favor of putting the NP/AP into the pre-verbal position. The only counterexample comes from the Jókai Codex.

In the Early Middle Hungarian subcorpus, the V–VM pattern (as in (65)) is very infrequent, and therefore it is difficult to establish any patterns. The problems associated with the interpretation of copular sentences with two nominals remains an issue here as well.

(65) Azon hitre vallom ezt is, hogy jó három tehenem
same faith.SUB confess.DEFOBJ.3SG this.ACC too that good three cow.POSS.1SG
valának **fejősök**
be.PST.3PL milking.PL
'I confess under the same oath that three of my good cows were milking' (KBosz. 21, 1584)

Table 13. Latin vs. Hungarian: nominal/adjectival predicates

	Hungarian V–NP/AP	Hungarian AP/NP–V
Latin V–NP/AP	27	7
Latin NP/AP–V	1	29

5. DISCUSSION: WHAT IS CHANGING AND HOW

In Section 4, we surveyed the results of corpus queries targeting a word order variable, the placement of the verb modifier. This variable had two variants in neutral sentences in the investigated periods: the VM could either immediately precede the verb, or it could appear in the post-verbal domain. At the outset of the investigation, we assumed that there were several independent variables that had an effect on the distribution of the variants of the dependent variable: the type of the verb modifier, the time period, and language contact with Latin. It was also expected that several language-internal and language-external factors would have an effect on the distribution of the variants, the former pertaining to e.g., the grammatical context the VM occurs in, the latter surfacing in inter- and intra-speaker variation. As for this issue, differences in the distribution of the data can be observed, but it is very difficult to account for them, as information is very limited on the people behind the linguistic data.

5.1. Factors of variation

The diagram in Figure 1 summarizes the results by displaying two of the independent variables, the type of the VM and the time period. The third variable, that is, pattern borrowing from Latin, is a more complex issue, its effect can only be estimated on the basis of comparing and weighing several observations. In what follows, these variables will be discussed individually, but as they are intricately connected, complete separation is virtually impossible.

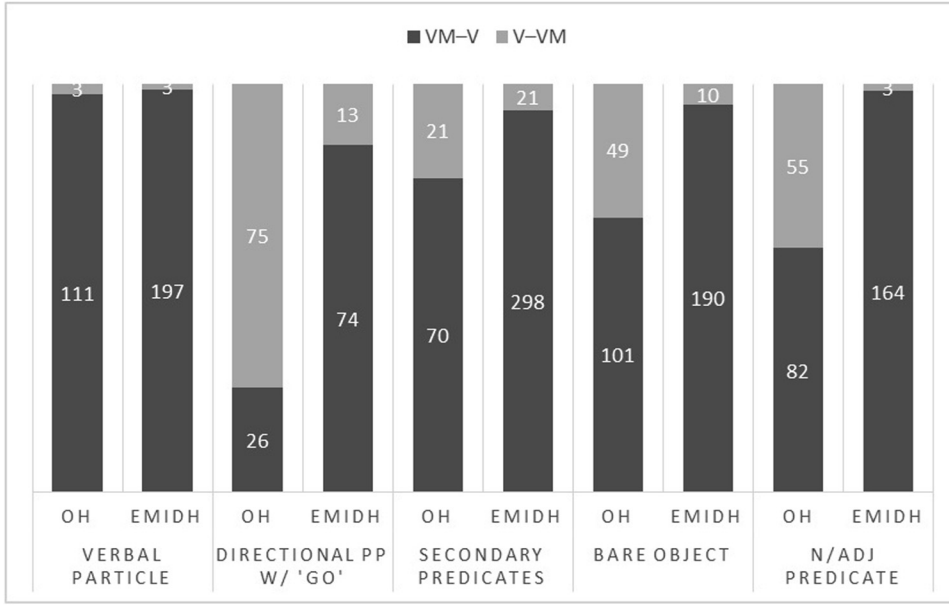


Figure 1. Summary of the results

5.1.1. Type of the verb modifier and time. The most striking result shown by the diagram in Figure 1 is that the verbal particle indeed seems to stand out in displaying hardly any variation, that is, it is almost categorically pre-verbal both in Old Hungarian and in Middle Hungarian. We claim that their post-verbal occurrences cannot be regarded in a similar fashion as those of other VMs, i.e., they cannot be seen as relics of an old pattern. The consistency of their placement suggests that their pre-verbal position was constant throughout the OV > VO change, and, as such, it was a trigger for reanalysis. The emergence of verbal particles surfacing post-verbally can be seen as a secondary, marginal change. Verbal particles that encoded the endpoint of movement could pattern with other goal-denoting complements, and the potential post-verbal placement of goals could be marginally extended even to those particles that were void of lexical meaning in a given context. However, post-verbal particles were generally infrequent, and this exceptional pattern went through exaptation.

The rest of the VMs all show category-internal variation, with a shift toward more consistent pre-verbal placement by Early Middle Hungarian. In the case of secondary predicates, bare objects, and adjectival and nominal predicates, movement seems to become nearly categorical by Early Middle Hungarian, while directional PPs retain some variation. In 5.2, we discuss this difference from a broader perspective. However, it needs to be mentioned that some of the observed variation between the types of Verb Modifiers can be due to additional grammar-internal features that surfaced during the investigation. One such factor that came up in a recurring manner was that of weight: heavier constituents seem to have been less readily available for movement. Another such factor was the lexical category of the VM: in the case of those VM-types where the adjective/noun distinction played a part (secondary predicates and copular clauses), adjectives appeared to be more likely to end up in Spec, PredP. This, again, can be partly due to weight (with nouns more likely to have a more complex internal structure) and possibly partly to referentiality.

5.1.2. Interference. As discussed in 2.3, we follow the general assumption that Hungarian used to be an OV language, and its present VO features result from a word order change. In general, it is extremely likely that the overall shift towards head-initiality is connected to contact with speakers of different Indo-European languages, but the nature and the extent of this has not been researched, and the possibilities for systematic investigation seem to be fairly limited in general. However, in the case of the present study, there is another likely source of borrowing patterns, namely Latin: both in a general sense, as the primary language of literacy during the Old and Middle Hungarian periods, and, in the case of the Old Hungarian codices, also as the direct source of the translated texts. Pattern borrowing from a prestigious literary language can lead to slight structural changes in the recipient language, and its effects, including those on word order, can spread from the formal to the informal register (Thomason & Kaufman 1986, 78–80). This is the factor that complicates the interpretation of the data summarized in Figure 1, given that the compared Old and Early Middle Hungarian data differ both in their register features and in their potential proximity to Latin.

The only category in the case of which pattern borrowing can probably be ruled out is that of the verbal particle, and that is fairly consistently pre-verbal in both source types. As for the other types, it was possible to compare the word order of the Latin source and the Hungarian translation in the case of some of the Old Hungarian codices. The results showed that in the clear majority of cases, Latin and Hungarian word order patterns are identical (directional

complements: 77.5%, secondary predicates: 80.9%, bare nominal objects: 80.8%, adjectival and nominal predicates: 87.5%). The contrast between particles and the rest of VMs is remarkable,[15] yet in an of itself it cannot distinguish two scenarios. One of these is that higher rates of post-verbally occurring VMs in Old Hungarian codices is entirely due to following the word order of the Latin original, and there is no "real" shift to account for: the non-pre-verbal occurrences are due to pattern borrowing restricted mostly to these sources. As opposed to this, the other scenario assumes a shift towards more consistent pre-verbal placement, i.e., generalization of movement to Spec, PredP, even though the Latin source could well play its part in boosting the relative frequency of post-verbal VMs in Old Hungarian codices.

In order to shed light on this issue, it is instructive to look at those (much more infrequent) examples in the case of which the Hungarian translation differs from the Latin original in its word order. As shown in the subsections of Section 4, most of the time this happens in the direction of rendering a post-verbal element as a pre-verbal VM in Hungarian. However, there exist counterexamples, and most of them, but not all, come from the Jókai Codex, the earliest of our sources. There are also instances in which the Hungarian post-verbal pattern does not have a comparable Latin model to follow. These findings seem to suggest that the second scenario is probably on the right track: post-verbal occurrences can be seen as an archaic pattern that was losing ground, its occurrences cannot be regarded simply as an effect of translation. The fact that some variation persists in the Early Middle Hungarian sources that are much less affected by Latin also points towards this.

5.1.3. Inter-speaker and intra-speaker variation. Another observation that might corroborate the assumption above is based on the comparison of the Old Hungarian codices, that is, focusing on inter-speaker variation. As mentioned in the respective sections, the individual sources differ from each other quite significantly, but at this point it needs to be mentioned that there is some pattern in this variation as well.

From the three codices that could be compared with a Latin source, it is the oldest one, i.e., the Jókai Codex (1370/1440) in which the frequency of post-verbal VMs is the highest (only 20.0% of nominal and adjectival predicates, 39.4% of bare objects, and 63.6% of secondary predicates are pre-verbal). As opposed to this, the Jordánszky Codex (1516–1519) features much less variation: 87.0% of nominal and adjectival predicates, 88.5% of bare objects, and 84.4% of secondary predicates are pre-verbal. The Munich Codex falls between the two both in a temporal sense (it was copied in 1466) and in the data distribution (65.2% of nominal and adjectival predicates and 50.0% of bare objects are pre-verbal). However, the directional complement of the motion verb *megy* 'go' stands out in each of these sources: these are pre-verbal only in a minority of cases (JókC.: 18.5%, MunchC.: 6.7%, JordC.: 35.3%). Even though these codices cannot be conceived of as the temporally consecutive variants of the same dialect, still, it seems to be suggestive that the only category that remains dominantly post-verbal throughout is the one that also occurs post-verbally in Early Middle Hungarian texts with some frequency.

[15]That is, there is no difference between Old and Early Middle Hungarian in the case of the former where pattern borrowing is ruled out, and there are relatively large differences in the case of the latter, with a very high rate of matching word order in Old Hungarian codices.

It is also telling if and how the translators (or copiers) diverged from the Latin word order. In most of the cases, the Hungarian translations retained the Latin pattern, i.e., a high percentage of both the VM–V and the V–VM patterns in Hungarian correspond to the Latin original. In the case of the (much rarer) mismatches, we find instances in both directions in the Jókai Codex, i.e., there are several cases of rendering a VM–V pattern as V–VM in Hungarian as well. There seems to be very few mismatches in general in the Munich Codex, and those are almost all in the opposite direction, i.e., the order of the string in Hungarian is VM–V as opposed to the Latin V–VM. As for the Jordánszky Codex, all the examples in our dataset are translations of the original post-verbal Latin pattern as VM–V in Hungarian. In striking contrast with these data, the Jordánszky Codex seems to be the one among the six codices that features post-verbal particles in neutral clauses most frequently. Needless to say, direct pattern borrowing from Latin is ruled out in the case of particles, but even the once suggested indirect influence seems to be highly unlikely on the basis of the data shown above, as this is the source that diverges most from Latin in favouring pre-verbal placement.

Similarly to the above three codices, the other three (in the case of which we could not rely on Latin sources) all feature variation within each VM type, that is, none of them can be seen as a variant (doculect) in which movement of the VM would have become categorical. The nearest to it is probably the source entitled Könyvecse ('Booklet', 1521), in the case of which 85.7% of nominal predicates, 96.6% of bare objects, and 100.0% of secondary predicates are pre-verbal. That is, each of the sources displayed variation, it was only its extent that differed. Early Middle Hungarian sources featured fewer post-verbal VMs in neutral clauses in general.

In order to zoom in on source-specific differences, and through that, unravel the factors of intra-speaker variation, one would need to survey individual sources in their entirety. A further step to take would be a multifactorial analysis based on a much larger dataset, which is unfeasible at present; however, such a comparative investigation of the codices could reveal a lot about micro-parametric syntactic variation in Old Hungarian and the diachronic background of variation in VM placement in the modern Hungarian dialects.

5.2. The OV heritage and post-verbal constituents

The emergence and change of the syntactic positioning of Verb Modifiers needs to be investigated within the context of a more general change due to which the originally verb final VP became verb initial in Hungarian. The steps of this change are assumed to be the following:

(66) (i) Frequency change of post-verbal constituents in a head-final language, with the particles being omitted from the change, i.e., those remain pre-verbal.
(ii) Change in the head-directionality parameter of the VP, triggered by the frequency change.
(iii) Concomitant reanalysis of the pre-verbal position of the particle as a result of movement (instead of base-generation) into a low functional projection (the Predicative Phrase) in which it can form a complex predicate with the verb.[16]

[16]This is also part of a more general change that led to the emergence of the head-initial functional projections in the pre-verbal domain (cf. É. Kiss 2014).

(iv) Generalization of movement to those – by now post-verbally base-generated – constituents that, similarly to the particles, form a complex predicate with the verb.

As there are no written records, there is hardly any chance to learn whether the Proto-Hungarian OV-inheritance was rigidly or flexibly verb final, but it is necessary to assume that the first step of the change involved the accumulation of derived non-verb-final patterns in a head-final language until it led to the reanalysis of such patterns as base-generated head-initially. There are several factors that can trigger right dislocation in an OV language (weight, accessibility, other pragmatic factors), and our initial claim was that the particle is exceptional in the argument structure of the verb in that it is not affected by these factors. This accounts for its pivotal role in the genesis of the PredP: from original (predicative) complements being base-generated in an associated VP-internal position, they became reanalyzed as part of the functional extension of the VP. Regarding the other types of VMs, we assume these were all subject to the first phase of this process (i.e., they were subject to becoming more and more flexible in their word order with respect to the verb) and, ultimately, change in directionality. Again, the lack of written documents is a grave problem, but in this case there is a slight chance that parallels from other OV languages may shed light on the course of this change: not about its turning point, but on the process of accommodating more and more non-verb-final patterns.

Several studies have been published recently that focused on the issue of post-verbal constituents in OV languages, and their results converged in establishing scales of constituent types with respect to their likeliness of being postposed. The following scale in (67) was suggested by Stilo (2018, 5) on the basis of comparing 28 languages in the Araxes-Iran Linguistic Area; 26 of these are OV languages.

(67) Goal > Recipient > Benefactive > Addressee > Definite Direct Object > Indefinite Direct Object

Haig's (2022, 370) hierarchy (Figure 2; originally, (59)[17]), established on the basis of Kurdish dialects, is fairly similar to this scale, although he does not differentiate the two types of objects.

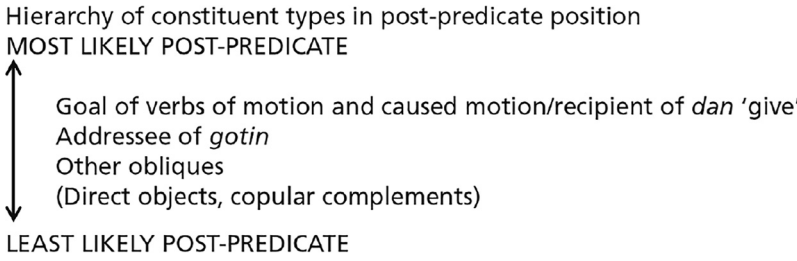


Figure 2. Haig's (2022) hierarchy of postverbal constituentsl

[17] *gotin* 'say/tell'.

However, he also includes copular complements, which are positioned together with direct objects, that is, these are the least likely to appear post-verbally.

Korn (2022) investigates Balochi, which, as the author suggests, can be a useful point of comparison, as it is a Western Iranian language similarly to Kurdish, but it has not been affected by contact with VO languages. Her multi-dimensional cline of post-verbal complements in Balochi (Figure 3, Korn 2022, 118; originally, (97)) differs from those of Stilo and Haig in containing several paths, but its starting point, i.e., the most likely candidate for post-verbal placement is again the (non-human) goal of motion verbs, and the least likely, again, is the direct object.

The results of the present study seem to be in line with the above clines, although probably indirectly (Old Hungarian, as discussed in 2.3, was already a VO language). Directional PPs are goals, and, as such, are the most likely candidates of being post-verbal in an OV language, whereas bare objects and copular complements are the least likely. This means that they could be the most frequently post-verbal when the Predicative Phrase emerged, i.e., it was the most established VM-type in a post-verbal position, and therefore it was an easier "target" for several factors that influence its reinstantiation (by movement) in the pre-verbal position. Bare (indefinite) objects and copular complements are at the other end of the scale, they are the least likely candidates to appear post-verbally in an OV language. Although we cannot claim that these were exempt from the directionality change similarly to particles (as opposed to particles, these VMs occur post-verbally in the Old Hungarian codices fairly frequently), these are only rarely post-verbal in Early Middle Hungarian. All in all, it can be the case that whereas directional PPs were generally post-verbal at some point in the history of Hungarian, bare objects and copular predicates could be lagging behind, and, being more frequently pre-verbal all through, their pre-verbal position could become categorical sooner. We propose that Latin could play a role in increasing the frequency of post-verbal occurrences of each of the VM types (except for the particles), but it does not account for their existence: post-verbal VMs in neutral clauses can be seen as an archaic pattern, reflecting the change in directionality, and the generalization of their movement into Spec, PredP could be influenced by the interplay of several factors which affected the types of VMs to a different extent.

5.3. Generalization of filling in Spec, PredP

As we established in section 2.4, our detailed corpus study aimed at providing the missing data that can serve as evidence to the possibility of maintaining a simple reanalysis and restructuring for the emergence of the derivation of the VM–V order. Alternatively, they could have shown that the patterns of variation are such that they make that impossible. Our data point us in the direction that we can maintain it if we take into account both additional grammar-internal

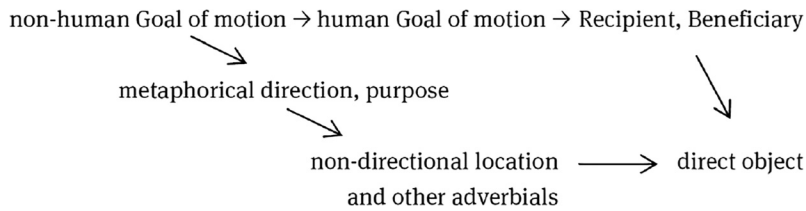


Figure 3. Multi-dimensional cline of postverbal arguments in Southern Balochi (Korn 2022, 118)

factors (which were also undergoing change in the periods we examine) and extra-grammatical interfering factors, such as the difficulty of fully identifying speakers and regional variants, as well as the possible frequency-related contact effect of Latin (and maybe other languages). The grammar-internal factors we want to mention in the remaining part of this paper are the role of the changing way of encoding complex events and that of referentiality.

The distribution of verbal particles solidified the hypothesis that they were the most stable part of the change and thus must have been the driving force behind it (cf. Hegedűs 2018 as well). The few exceptions we found in our texts can mainly be put down to lexical reasons, namely, either that the post-verbal element was not yet a particle but was rather still a more lexical, less grammaticalized directional PP, or that the lexicalization of the telicity of complex events was not yet fully up to the non-verbal element, e.g., a particle, but the verb itself was able to encode it and thus complex predicate formation was not as ubiquitous. This was proposed perviously as part of the change in the tense-aspect system of the language (see É. Kiss 2005; Gerőcs 2011) and may be behind the variation we see in Old Hungarian and its remnants in Early Middle Hungarian.

This issue, namely the formation of complex predicates due to the syntactic way of expressing complex events may be mostly relevant for the variation we find in the case of the word order of directional complements. Hungarian is a satellite-framed language in the sense of Talmy (2000), and has been undergoing some changes in its growing tendency to express the result of an event as a separate lexical entry and not the verb (as a strong satellite-framed language, see Acedo-Matellán 2016). Goal-denoting directional constituents in the argument structure of a motion verb such as *go* are also possible parts of complex predicates in complex event structures, but if the verb, with its verbal inflection included, already expresses telicity, this directional constituent has more freedom in its syntactic position. With the changes in the verbal tense and aspect system, the expression of the telos of a complex motion event became more dependent on a separately lexicalized endpoint that is part of the syntactically derived complex predicate. However, in Old Hungarian we still see a greater deal of variation, which can be the underlying reason why predicate movement is not obligatory as a grammatical way to bring the lexical endpoint to the dedicated position. Particles are different in this respect because the less lexical they are semantically, the more likely it is that the verb and the particle together express the telic event. This is similarly the case for secondary predicates in general, however, the role of referentiality additionally interferes there.

Referential arguments are rather free in the language in that they can be topicalized or they can be simply post-verbal. Bare objects are different from primary or secondary predicates in that they are not syntactic predicates in the clause and they are not part of complex events, either (in fact, they are excluded from them, see É. Kiss 2006). However, they are predicative semantically and this restricts their distribution within the clause, they cannot appear in certain positions. The lack of a fully developed determiner system may have been interfering in Old Hungarian in that determinerless nominals were less uniformly non-referential and, thus, syntactically smaller NPs were not as restricted as they are today. Complex predicate formation seems to have been less general then in the sense that the verbal part of the predicate may have required less support as well. These two factors could be behind the variation we can observe, giving slightly more freedom to NPs in Old Hungarian.

Seeing all these different effects, we can claim that the early reanalysis of the VM position is plausible, and we can also confirm that the pre-verbal position is not a remnant but a reanalyzed

predicative position that is filled by movement of the predicative constituents. Although the variation we observe is influenced by many things, the grammatically relevant ones are parts of the grammar that were also undergoing changes in the time periods we observe and may have caused at least some of the variation as well.

6. CONCLUSION

In this paper, we have taken a close look at the changing word order of Verb Modifiers in Hungarian during the Old and Early Middle Hungarian periods. This time period is highly relevant with respect to word order change in the language, and our corpus study found that this is the time when most of the current VMs become overwhelmingly or even categorically pre-verbal in neutral sentences. We took a close look at verbal particles, directional PPs next to the verb *megy* 'go', secondary predicates, nominal and adjectival predicates next to the copula and bare objects in order to see how much word order variation we find and what may be behind the existing variation.

Verbal particles are the trailblazers, as we expected, as they are pre-verbal VMs in almost 100% of the cases from the beginning. We took this as conformation that our hypothesis was correct, and the syntactic reanalysis of the pre-verbal position into a general place of complex predicate formation had already happened by the time of the early texts. Our goal was also to look for confirmation or counter-evidence in the distribution of the other types of VMs in order to see whether a unified analysis can be maintained or several reanalyses need to be invoked. We can conclude that the earlier proposals by É. Kiss (2014) and Hegedűs (2018) were on the right track. Our data indicates that the variation is due to several, often intertwining factors, both language-internal and language-external. The two grammatically relevant sources of variation that we could identify after excluding the other factors were the increasing role of complex predicate formation with complex events, especially in the case of motion verbs, and the role of referentiality in the case of bare objects arguments.

We excluded from this corpus study one syntactic environment, namely, the case of particle climbing and restructuring with (semi-)auxiliaries, since their auxiliary status is a confounding factor that would have made it difficult to include them here. However, this is definitely a missing piece of the mosaique we intend to add in later studies, as this would complete the investigation of VMs in the diachronic stages of Hungarian.

LIST OF ABBREVIATIONS

1/2/3	first/second/third person
ABL	ablative
ACC	accusative
ALL	allative
COND	conditional
CONV	converb
DAT	dative
DEFOBJ	definite object

ELA	elative
FUT	future
ILL	illative
INE	inessive
INF	infinitive
INS	instrumental
PASS	passive
PL	plural
POSS	possessive
POT	potential
PRT	verbal particle
PST	past
PTCP	participle
SG	singular
SUB	sublative
SUP	superessive
TRE	translative(essive)

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